

## SURVEY of CURRENT BUSINESS



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- Integrated Economic and Environmental Satellite Accounts
- Accounting for Mineral Resources: Issues and BEA's Initial Estimates
- Benchmark Input-Output Accounts for the U.S. Economy, 1987

U.S. DEPARTMENT OF COMMERCE  $\sim$  ECONOMICS AND STATISTICS ADMINISTRATION BUREAU OF ECONOMIC ANALYSIS



# SURVEY of CURRENT BUSINESS

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Gross Domestic Product (April 28), Personal Income and Outlays (April 29), and Composite Indexes of Leading, Coincident, and Lagging Indicators (May 3).

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## Regular features

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U.S. economic activity slowed in the first quarter of 1994. Real GDP increased 2.6 percent, down from a 7.0-percent increase in the fourth quarter of 1993. At 2.3 percent, inflation remained moderate. In 1993, corporate profits increased \$59.4 billion, up from a \$37.7 billion increase in 1992.

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#### BEGINNING WITH THIS ISSUE

- A new section presents monthly estimates for personal income, the disposition of personal income, and U.S. international transactions in goods and services. The three tables in this section, which will appear each month, are on pages 31–32.
- The "Current Business Statistics" section has been discontinued. The list of sources for these series, which was published in last month's Survey, is reprinted beginning on page S-1 of this issue.

### THE BUSINESS SITUATION

This article was prepared by Daniel Larkins, Larry R. Moran, and Ralph W. Morris. The Economy's uneven expansion continued in the first quarter of 1994, according to the advance estimates of the national income and product accounts (NIPA's). The growth of real gross domestic product (GDP) slowed to 2.6 percent from 7.0 percent in the fourth quarter of 1993 (chart 1). The deceleration was accounted for by sharply slower growth in the production of goods other than motor vehicles and by a downturn in the production of structures; the production of motor vehicles surged again in the first quarter, and the production of services registered another modest increase (table 1).

Real gross domestic purchases also grew less in the first quarter than in the fourth—4.1 percent after 6.7 percent. The slowdown was more than accounted for by final sales to domestic purchasers; inventory investment accelerated sharply (table 2). Within final sales, residential and non-residential fixed investment increased less than in the fourth quarter, as did personal consumption expenditures, and government purchases dropped after no change.

Exports and imports are the link between goods and services produced in the United States (GDP) and goods and services purchased by U.S. residents (gross domestic purchases). In the first quarter, exports turned down, and imports slowed sharply. In the fourth quarter, both exports and imports had increased substantially.

The fixed-weighted price index for gross domestic purchases increased 2.3 percent in the first quarter, the same rate as in the fourth quarter. The fixed-weighted price index for GDP increased 2.9 percent after increasing 2.3 percent. The difference between the fourth-quarter increases in the two indexes reflects a step-up in the prices of exports and a downturn in the prices of imports.

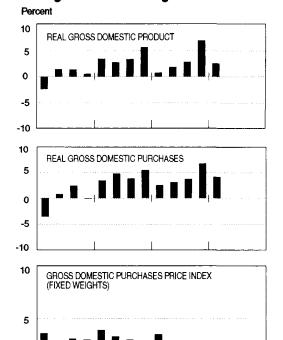
Northridge earthquake.—The Northridge earthquake struck southern California on the morning of January 17. The destruction it caused—and the reconstruction and relief efforts that resulted—

affected the components of first-quarter GDP and gross domestic purchases, but most of these effects are embedded in the source data that are used to estimate the components. Thus, the effects of the earthquake and reconstruction cannot be disentangled from the effects of unseasonably cold weather in much of the Nation or, indeed, from the effects of any other factor.

However, the Bureau of Economic Analysis did estimate the extent of the earthquake's damage to fixed capital. It is estimated that the earthquake caused the consumption of fixed capital (including residential capital) owned by business to increase \$41 billion in constant dollars

#### CHART 1

#### Selected Measures: Change From Preceding Quarter



Note Percent change at annual rate from preceding quarter;

1994

U.S. Department of Commerce, Bureau of Economic Analysis

<sup>1.</sup> Quarterly estimates in the NIPA's are expressed at seasonally adjusted annual rates, and quarterly changes are differences between these rates. Quarter-to-quarter percent changes are annualized. Real, or constant-dollar, estimates are expressed in 1987 dollars.

and \$47 billion in current dollars (at annual Reflecting the increase in consumption of fixed capital, real net domestic product (NDP) decreased 1.1 percent in the first quarter; if there had been no earthquake, real NDP would

have increased about 2.4 percent. (NDP is GDP less the consumption of fixed capital.)

The consumption of fixed capital is deducted in the calculation of two components of personal income: Rental income of persons with cap-

Table 1.—Real Gross Domestic Product, by Major Type of Product

[Seasonally adjusted at annual rates]

		Billion	s of 1987 o	dollars		Percent change from preceding quarter				
	Change from preceding quarter						1993		1994	
	Level	1993		1994	11	116	IV	<u> </u>		
	1994:1	1)	111	١٧	I		""	IV		
Gross domestic product	5,259.0	23.9	36.2	87.3	33.4	1.9	2.9	7.0	2.6	
Goods	2,161.0 240.5 1,920.5	8.9 -2.6 11.5	5.8 -10.2 16.0	56.0 21.7 34.3	30.1 25.4 4.7	1.7 -4.9 2.5	1.1 -18.6 3.5	11.2 53.0 7.5	5.8 56.3 1.0	
Services	2,617.7	12.2	19.2	9.3	11.7	1.9	3.0	1.4	1.8	
Structures	480.3	2.8	11.1	22.1	-8.4	2.5	10.1	20.3	-6.7	

NOTE.—Most series are found in table 1.4 of the "Selected NIPA Tables." Output of motor vehicles is the sum of auto output and truck output from tables 8.4 and 8.6, respectively.

Table 2.—Real Gross Domestic Product, Real Gross Domestic Purchases, and Real Final Sales to Domestic **Purchasers** 

[Seasonally adjusted at annual rates]

		Billions	s of 1987 o	iollars		Percent c	hange from	n preceding	g quarter
	Laval	Chan	ge from pr	eceding qu	arter		1993		1994
	Level		1993		1994	п	1111	IV	
	1994:1	II	111	١٧	1	"	111	10	<u>'</u>
Gross domestic product	5,259.0	23.9	36.2	87.3	33.4	1.9	2.9	7.0	2.6
Less: Exports of goods and services	605.0 709.3	5.2 20.5	1.3 9.8	28.1 26.3	-15.0 4.8	3.6 13.3	–.9 6.0	20.4 16.4	-9.3 2.8
Equals: Gross domestic purchases	5,363.3	39.3	47.2	85.4	53.3	3.1	3.7	6.7	4.1
Less: Change in business inventories Farm Nonfarm	30.5 2 30.7	-16.3 4.1 12.2	-6.5 -8.8 2.3	2.0 8.5 6.5	22.0 4.2 17.8				
Equals: Final sales to domestic purchasers	5,332.8	55.5	53.8	83.5	31.2	4.4	4.2	6.6	2.4
Personal consumption expenditures Nonresidential fixed investment Residential investment Government purchases	3,539.8 634.1 232.2 926.8	28.9 22.0 –5.2 9.8	36.9 10.5 5.9 .6	37.3 30.9 15.1 0	32.9 8.4 5.0 -14.9	3.4 16.6 -9.5 4.3	4.4 7.4 11.9 .3	4.4 22.5 31.7 0	3.8 5.5 9.1 -6.2

NOTE.—Dollar levels are found in tables 1.2 and 1.6 of the "Selected NIPA Tables." Percent changes are found in table 8.1.

Table 3.—Motor Vehicle Output, Sales, and Inventories

[Seasonally adjusted at annual rates]

		Billions	of 1987 d	iollars		Percent o	g quarter		
	Laval	Change from preceding quarter				1993			1994
	Level	1993			1994	,,	ııı		
	1994:I	ll.	H	١٧	ı	į.	III	IV	
Output	240.5 138.0 102.5	- <b>2.6</b> .9 -3.5	- <b>10.2</b> 9.9 3	<b>21.7</b> 11.5 10.2	<b>25.4</b> 13.0 12.4	- <b>4.9</b> 3.0 -15.7	- <b>18.6</b> -28.4 -1.5	<b>53.0</b> 47.1 61.7	<b>56.3</b> 48.6 67.5
Final sales Autos Trucks	<b>235.6</b> 136.4 99.2	<b>14.1</b> 7.2 6.9	-7.7 -4.9 -2.8	<b>13.8</b> 2.9 10.9	<b>24.1</b> 17.2 6.9	<b>32.9</b> 27.8 40.8		<b>31.0</b> 10.4 65.3	<b>54.0</b> 71.5 33.4
Change in business inventories Autos Trucks	<b>4.9</b> 1.6 3.3	- <b>16.7</b> -6.3 -10.4	<b>-2.5</b> -5.1 2.6	<b>7.9</b> 8.7 8	<b>1.4</b> -4.2 5.6				

NOTE.—Dollar levels for cars and trucks are found in tables 8.4 and 8.6, respectively, of the "Selected NIPA Tables."

ital consumption adjustment, and proprietors' income with inventory valuation and capital consumption adjustments. These incomes are not estimated on a constant-dollar basis in the NIPA's; the estimates reported below are in current dollars and are expressed at annual rates.

Earthquake damage to residential capital other than repairable damage reduced rental income of persons by \$31 billion, about one-third of which was offset by insurance benefits. Earthquake damage to fixed capital other than repairable damage reduced proprietors' income by \$2½ billion, about half of which was offset by insurance benefits.

The source data used to estimate first-quarter corporate profits are not yet available; however, other data indicate that profits were reduced by about \$29 billion by the earthquake. Non-repairable damage to corporate equipment and structures amounted to \$13½ billion, about one-third of which was offset by insurance benefits. In addition, benefits paid by insurance companies reduced profits by about \$20 billion.

Motor vehicles.—Motor vehicle output and sales jumped sharply for the second consecutive quarter; inventories also increased. The first-quarter jump in output was about the same as the jump in the fourth quarter, and it was evenly split between autos and trucks. The first-quarter jump in sales was about twice the fourth-quarter jump, and it was mostly accounted for by autos. The increase in inventories was much smaller than in the fourth quarter, and it was more than accounted for by trucks.

Output increased 56.3 percent in the first quarter after increasing 53.0 percent in the fourth (table 3). Truck output increased 67.5 percent after increasing 61.7 percent; auto output increased 48.6 percent after increasing 47.1 percent.

Final sales increased 54.0 percent in the first quarter after increasing 31.0 percent in the fourth. Auto sales increased 71.5 percent after increasing 10.4 percent. Domestic-car sales accounted for nearly three-fourths of the first-quarter increase in new-car sales. In units, domestic-car sales increased to 7.5 million from 7.1 million, and imported-car sales increased to 2.0 million from 1.9 million. Truck sales increased 33.4 percent after increasing 65.3 percent. Light domestic trucks accounted for nearly all of the first-quarter increase; sales of minivans, sport utilities, and full-size pickups remained very strong. In units, light domestic trucks increased to 5.9 million from 5.5 million, light imported trucks increased

to 0.2 million from 0.1 million, and "other" trucks were unchanged at 0.4 million.

About half of the first-quarter jump in motor vehicle sales was accounted for by consumers. Business and net exports accounted for most of the rest.

Sales to consumers increased 29.3 percent after increasing 26.3 percent; auto sales accounted for three-fourths of the first-quarter jump. The strength in first-quarter sales to consumers is consistent with recent improvements in consumer attitudes and incomes. The Index of Consumer Sentiment (prepared by the University of Michigan's Survey Research Center) jumped from 84.0 in the fourth quarter to 93.0 in the first, its highest level in 5 years. Real disposable personal income increased 2.7 percent, the fourth consecutive increase; over the past four quarters, it has increased 3.9 percent. In addition, interest rates on new-vehicle loans remained low; for example, the rate on 48-month new car loans at commercial banks averaged 7.54 percent in February.

The first-quarter increase in motor vehicle inventories was more than accounted for by trucks. Auto inventories decreased in the first quarter after increasing in the fourth; based on units, the inventory-sales ratio for domestic new cars was unchanged at 2.5—just above the traditional industry target of 2.4.

#### Prices

The fixed-weighted price index for gross domestic purchases increased 2.3 percent in the first quarter, the same rate as in the fourth quarter (table 4). A slowdown in food prices and a downturn in energy prices roughly offset an acceleration in prices paid by the Federal Government for employee services.

Prices of personal consumption expenditures increased 2.1 percent after increasing 2.8 percent. A slowdown in food prices mainly reflected downturns in the prices of fresh fruits and vegetables and slowdowns in the prices of seafood and poultry. Gasoline and oil contributed the most to the downturn in energy prices, but electricity and gas also contributed; fuel oil and coal turned up. Slowdowns were widespread in prices of other personal consumption expenditures; two exceptions were transportation services and durable goods excluding both motor vehicles and "furniture and household equipment."

Prices of nonresidential fixed investment increased 1.8 percent after increasing 1.2 percent. Prices of nonresidential structures in-

creased somewhat less in the first quarter than in the fourth. Prices of producers' durable equipment increased after little change. Prices of transportation equipment posted the largest increase in 3 years, and prices of information processing equipment decreased again, reflecting a decrease in computer prices.

Prices of residential investment increased 2.2 percent after increasing 3.2 percent. The first-quarter increase was substantially below the 3.9-percent average rate of increase over the preceding six quarters and substantially above the

1.0-percent average rate of increase over the six quarters before that.

Prices of government purchases increased 3.7 percent after increasing 1.0 percent. Prices paid by the Federal Government increased 4.6 percent after increasing 0.5 percent; the step-up was attributable to a pay raise for Federal employees.<sup>2</sup> Prices paid by State and local governments increased 3.0 percent after increasing 1.5 percent; prices of goods turned up, and prices of serv-

#### First-Quarter 1994 Advance GDP Estimate: Source Data and Assumptions

The advance GDP estimate for the first quarter is based on the following major source data, some of which are subject to revision. (The number of months for which data were available is shown in parentheses.)

Personal consumption expenditures: Sales of retail stores (3) and unit auto and truck sales (3);

Nonresidential fixed investment: Unit auto and truck sales (3), construction put in place (2), manufacturers' shipments of machinery and equipment (3), and exports and imports of machinery and equipment (2);

Residential investment: Construction put in place (2) and housing starts (3);

Change in business inventories: Manufacturing and trade inventories (2) and unit auto and truck inventories (3);

Net exports of goods and services: Exports and imports of goods and services (2);

Government purchases: Military outlays (3), other Federal outlays (2), State and local construction put in place (2), and State and local employment (3);

GDP prices: Consumer Price Index (3), Producer Price Index (3), price indexes for nonpetroleum merchandise exports and imports (3), and values and quantities of petroleum imports (2).

The Bureau of Economic Analysis (BEA) made assumptions for the source data that were not available. A table detailing these assumptions is available on the Department of Commerce's Economic Bulletin Board or from BEA; the assumptions are summarized in table A.

Table A.—Summary of Major Data Assumptions for Advance Estimate, 1994:I
[Billions of dollars, seasonally adjusted at annual rates]

		1993			1994	
	October	November	December	January	February	March
Fixed investment:						
Nonresidential structures: Buildings, utilities, and farm:						
Value of new nonresidential construction put in place	135.6	138.7	139.0	132.2	129.6	136.8 <sup>1</sup>
Producers' durable equipment:	4.0		ا د	4.0	ا م	44.53
Manufacturers' shipments less exports, aircraft industry, nondefense	4.3 344.2	3.1 366.9	5.2 375.5	1.0 355.4	2.5 373.0	11.5 <sup>2</sup> 370.3 <sup>2</sup>
Residential structures:	0		0.0.0	00011	0.0.0	
Value of new residential construction put in place:	139.5	144.5	150.8	150.6	151.4	155.6 <sup>1</sup>
1-unit structures	10.5	11.2	11.3	10.6	10.8	11.2
Change in business inventaries performs						
Change in business inventories nonfarm:  Change in inventories for manufacturing and trade (except nonmerchant wholesalers) for						
industries other than motor vehicles and equipment in trade	6.1	37.0	-32.9	15.1	53.1	35.0
Net exports:					·	
Exports of merchandise:						
U.S. exports, excluding gold, balance-of-payments basis	457.2	459.9	486.8	457.3	440.6	456.9
U.S. imports, excluding gold, balance-of-payments basis	611.9	599.3	595.1	593.5	603.2	610.1
Net merchandise trade (exports less imports)	-154.7			-136.2		-153.2
Government purchases:						
State and local:			}			
Structures:	116.1	120.7	124.6	112.0	110.2	118.8
Value of new construction put in place	110.1	120.7	124.0	112.0	110.2	110.8

Assumed.
 Aircraft industry shipments, which were available through March, were used (along with exports and imports) to estimate the first-quarter change in producers' durable equipment.

<sup>2.</sup> In the NIPA's, an increase in the rate of Federal employee compensation is treated as an increase in the price of employee services purchased by the Federal Government.

for aircraft. Shipments of complete civilian aircraft, the usual source data, are available only through February.

ices increased somewhat more than in the fourth quarter.

The price index for GDP, which measures the prices paid for goods and services produced in the United States, increased 2.9 percent after increasing 2.3 percent. This index, unlike the index for gross domestic purchases, includes prices of exports and excludes prices of imports. Export prices increased more in the first quarter than in the fourth. All major end-use categories of exports except nonautomotive capital

Table 4.—Price Indexes (Fixed Weights): Change From Preceding Quarter

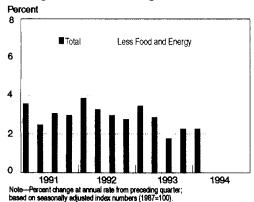
[Percent change at annual rates; based on seasonally adjusted index numbers (1987=100)]

		1993		1994
	- 11	III	IV	_
Gross domestic product	2.8	2.1	2.3	2.9
Less: Exports of goods and services	2.8 3.8	.6 -2.7	.7 1.1	3.7 -1.6
Equals: Gross domestic purchases	2.9	1.8	2.3	2.3
Less: Change in business inventories				
Equals: Final sales to domestic purchasers	2.9	1.8	2.3	2.4
Personal consumption expenditures Food Energy Other personal consumption expenditures Nonresidential lixed investment Nonresidential structures Producers' durable equipment Residential investment Government purchases		1.4 .3 -4.2 2.0 1.9 3.4 1.0 4.6 2.5	2.8 3.2 2.4 2.8 1.2 3.2 .1 3.2 1.0	2.1 1.1 -1.5 2.5 1.8 2.5 1.3 2.2 3.7
Addenda:  Merchandise imports  Petroleum and products  Other merchandise	4.1 16.1 3.0	-3.4 -36.6 .5	.3 -27.5 3.2	-1.7 -32.0 1.2

Note.—Percent changes in major aggregates are found in table 8.1 of the "Selected NIPA Tables." Most index number levels are found in tables 7.1 and 7.2.

#### **CHART 2**

#### Gross Domestic Purchases Prices (Fixed Weights): Change From Preceding Quarter



U.S. Department of Commerce, Bureau of Economic Analysis

and consumer goods contributed to the step-up. Import prices turned down. The price of imported petroleum and products posted its third straight drop of roughly 30 percent; all other major end-use categories of imports except industrial supplies and materials contributed to the downturn.

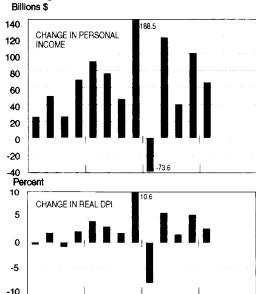
#### Personal income

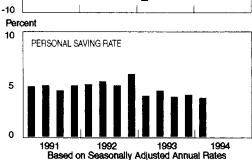
Real disposable personal income (DPI) increased 2.7 percent in the first quarter after increasing 5.4 percent in the fourth (chart 3). The deceleration was more than accounted for by a slowdown in current-dollar DPI, which increased 4.1 percent after increasing 7.8 percent. The personal saving rate—saving as a percentage of current-dollar DPI—decreased 0.3 percentage point to 3.7 percent, its lowest level in the current expansion.

Personal income increased \$65.4 billion in the first quarter after increasing \$100.0 billion in the

#### **CHART 3**

## Selected Personal Income and Saving Measures





Note--Changes are from preceding quarter.

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fourth (table 5). Proprietors' income and rental income of persons more than accounted for the slowdown.

Farm proprietors' income increased \$3.6 billion after increasing \$31.6 billion. Federal subsidy payments to farm proprietors decreased \$4.1 billion after increasing \$14.5 billion. If the subsidies and the adjustments for the effects of last year's floods and drought on fourth-quarter income are excluded, farm proprietors' income increased \$4.5 billion in the first quarter after increasing \$11.0 billion in the fourth; the slowdown reflected weaker increases in farm prices and lower livestock production.

Nonfarm proprietors' income increased \$5.0 billion after increasing \$13.0 billion. The deceleration reflected slowdowns in residential construction and in retail sales. Rental income of persons decreased \$12.9 billion after increasing \$2.7 billion. As mentioned earlier, nonfarm proprietors' income and rental income in the first

quarter were reduced by adjustments for damage resulting from the Northridge earthquake.

Wage and salary disbursements increased \$51.1 billion after increasing \$34.2 billion. Wages and salaries in both private industry and government increased more in the first quarter than in the fourth. In private industry, a step-up to \$44.5 billion from \$31.6 billion was concentrated in the service and distributive industries; manufacturing also contributed, reflecting bonus payments to employees in the motor vehicle industry. In government, a step-up to \$6.6 billion from \$2.6 billion mainly reflected the Federal pay raise; the rest was accounted for by an adjustment to State and local government compensation that reflected rescue and cleanup efforts associated with the earthquake.

Transfer payments increased \$14.8 billion after increasing \$11.3 billion. The step-up was due to cost-of-living adjustments (COLA's) to benefits under social security and several other Federal

Table 5.—Personal Income and Its Disposition
[Billions of dollars; seasonally adjusted at annual rates]

	Level	Cha	nge fron qua		ling		Level	Cha	nge fron qua		ling
	1994:1		1993		1994		1994:1		1993		1994
	100 1	11	III	IV	1		100	11	III	١V	1
Wage and salary disbursements Commodity-producing industries Manufacturing Other	3,200.7 789.5 595.8 193.7	108.4 24.4 20.6 3.8	32.7 4.3 1.2 3.1	34.2 9.9 6.3 3.6	51.1 10.2 8.0 2.2	In farm proprietors' income: Agricultural subsidy payments Uninsured losses to residential and business property and crop		-7.4	-11.0	14.5	-4.1
Distributive industries	733.5 1,075.8 602.0	26.2 55.6 2.2	5.3 16.6 6.5	5.7 15.9 2.6	13.4 21.1 6.6	losses due to Midwest floods and Southeast drought 1		0	-9.3	6.1	3.2
Other labor income	371.9	8.1	8.1	8.2	9.0	Uninsured losses to business property: <sup>1</sup>					
Proprietors' income with IVA and CCAdj Farm Nonfarm	475.6 60.0 415.6	-4.7 -8.7 4.0	-16.9 -22.2 5.2	44.5 31.6 13.0	8.6 3.6 5.0	Due to Midwest floods Due to Northridge, California earthquake		0	7 0	.7 0	0 -1.4
Rental income of persons with CCAdj Personal dividend income Personal interest income	3.5 160.7 700.2	5.2 .8 –2.3	1.0 1.2 2.6	2.7 .4 1.0	-12.9 1.3 3.5	In rental income of persons with CCAdj: Uninsured losses to nonfarm					
Transfer payments to persons	944.6	11.1	13.0	11.3	14.8	residential and business property: 1					
Less: Personal contributions for social insurance	279.1	7.9	2.3	2.4	9.9	Due to Midwest floods Due to Northridge, California earthquake	1	0	-1.9 0	1.9 0	0 -19.5
Personal income	5,578.1	118.5	39.5	100.0	65.4	'					
Less: Personal tax and nontax payments	715.7	23.9	8.0	10.2	16.5	In transfer payments to persons: Social security retroactive payments		0	0	1,2	-1.2
Equals: Disposable personal income	4,862.4	94.7	31.5	89.8	48.9	Cost-of-living increases in Federal transfer payments		0	0	ا ا	8.9
Less: Personal outlays	4,680.4	63.9	60.4	76.1	60.3	Emergency unemployment	Į.	8		-2.5	-4.7
Equals: Personal saving	182.0	30.8	-29.0	13.7	-11.4	compensation payments Midwest floods Northridge, California earthquake			.2 .3 0	-2.5 1 0	-4. <i>i</i> 2 1.4
income:  In wages and salaries: Federal Government and Postal Service pay adjustments Profit sharing and bonus pay		-2.2	1.6	-1.0	2.6	In personal contributions for social insurance: Social security rate and base changes and increase in the premium for supplementary medical insurance		0	0	0	6.2
(including accelerated bonuses) .		79.8	0	.4	1.7	illedical illodiance	***************************************	"	"	ľ	0.2

NOTE.—Most dollar levels are found in table 2.1 of the "Selected NIPA Tables." IVA Inventory valuation adjustment CCAdj Capital consumption adjustment

 These estimates mainly reflect adjustments to account for uninsured losses to residential and business property; however, some of the estimates include relatively small amounts reflecting other items. retirement and income support programs; the COLA'S, which became effective in January, added \$8.9 billion to transfer payments. Emergency unemployment benefits decreased \$4.7 billion after decreasing \$2.5 billion.

Personal contributions for social insurance, which are subtracted in deriving the personal income total, increased \$9.9 billion after increasing \$2.4 billion. The first-quarter increase was boosted \$6.2 billion by several program changes: An increase in the social security taxable wage base for employees and in the social security taxable earnings base for the self-employed from \$57,600 to \$60,600; the removal of the \$135,000 cap on the medicare taxable wage base; and an increase in the monthly premium for supplementary medical insurance.

Personal tax and nontax payments increased \$16.5 billion after increasing \$10.2 billion. The first-quarter increase in Federal income tax payments reflected the effects of tax rate changes and other provisions of the Omnibus Budget Reconciliation Act of 1993, as well as the growth in wages and salaries. The increase was restrained by the annual revision of the withholding tables to reflect the inflation indexing provisions of earlier tax law.

## Corporate Profits and Property Income in 1993

Profits from current production—profits before tax plus inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj)—increased \$59.4 billion in 1993, to \$466.6 billion, after increasing \$37.7 billion in 1992 (table 6).<sup>3</sup>

Profits from the domestic operations of nonfinancial corporations increased \$42.2 billion after increasing \$44.4 billion. In both years, real gross product of these corporations increased about 4 percent. Moreover, profits per unit increased substantially in both years, as unit labor costs increased much less than unit prices.

Profits from the domestic operations of financial corporations increased \$20.7 billion after decreasing \$2.0 billion. The upturn was more than accounted for by property and casualty insurance carriers, whose profits had turned negative in 1992 in the wake of Hurricanes Andrew and Iniki.

Profits from the rest of the world decreased \$3.6 billion after decreasing \$4.6 billion. In both years, payments (outflows) increased more than receipts

(inflows), reflecting the stronger growth in the U.S. economy than in many foreign economies.

Cash flow from current production, a profits-related measure of internally generated funds available to corporations for investment, increased \$25.4 billion after increasing \$21.4 billion. Cash flow as a percentage of nonresidential fixed investment was 85.4 percent in 1993, down from 89.7 percent in 1992, but still much higher than its 72.1-percent average in the 1980's.

Current-production measures of profits are not available for individual industries because estimates of the CCAdj by industry do not exist; profits before tax (PBT) with IVA is the best available measure. Most manufacturing industries posted smaller increases in 1993 than in 1992; however, profits from petroleum refining increased much more than in 1992. In contrast to the slowdown in manufacturing profits, profits in trade and in the transportation and utilities group turned up.

Related measures.—PBT increased \$54.0 billion after increasing \$33.1 billion. The difference be-

Table 6.—Corporate Profits

	Level	Change precedir	
	1993	1992	1993
	Billio	ons of dol	lars
Profits from current production  Domestic  Financial  Nonfinancial  Rest of the world	466.6 407.9 87.4 320.5 58.7	37.7 42.3 -2.0 44.4 -4.6	<b>59.4</b> 63.0 20.7 42.2 -3.6
CCAdj Profits before tax Profits tax liability Profits after tax	24.3 449.4 174.0 275.4	14.9 33.1 16.5 16.6	7.2 54.0 27.7 26.3
Cash flow from current production	532.4	21.4	25.4
Profits by industry: Profits before tax with IVA Domestic Financial Nonfinancial Manufacturing Trade Transportation and public utilities Other Rest of the world Receipts (inflows) Payments (outflows)	442.3 383.6 99.0 284.6 131.7 54.4 57.8 40.6 58.7 71.3 12.6	22.8 27.4 -2.6 30.1 25.7 -1.1 -2.4 7.8 -4.6 1.7 6.3	52.2 55.8 20.9 34.8 16.2 8.1 5.8 4.6 -3.6 6.1 9.6
		Dollars	
Unit prices, costs, and profits of domestic nonfinancial corporations: Unit price Unit labor cost Unit nonlabor cost Unit profits from current production	1.164 .768 .287 .109	0.012 .004 004 .013	0.015 .006 002

NOTE.—Dollar levels of these and other profits series are found in tables 1.14, 1.16, 6.16C, and 7.15 of the "Selected NIPA Tables."

IVA Inventory valuation adjustment

CCAdj Capital consumption adjustment

<sup>3.</sup> According to the revised estimates (released April 28, 1994), profits increased \$39.4 billion in the fourth quarter of 1993; the preliminary estimates, released March 31, had shown a \$42.0 billion increase.

tween the increase in PBT and the increase in profits from current production in 1993 reflected an increase in the ccadi that more than offset a decrease in the IVA.

The ccadi is the difference between the predominantly tax-based depreciation measure that underlies PBT and BEA's estimate of the consumption of fixed capital. The ccadj increased \$7.2 billion in 1993.

The IVA is an estimate, with the sign reversed, of the inventory profits that are included in PBT. Inventory profits increased \$1.8 billion in 1993.

#### Property income

Corporate property income includes net interest payments as well as profits from current production. For domestic nonfinancial corporations, net interest payments decreased \$1.6 billion in

Table 7.—Property Income of Domestic Nonfinancial Corporations and Related Series, 1959-93

[Billions of dollars]

		Pro	perty inc	ome			
Year			s from cu roduction		Net	Domes- tic in-	Net reproducible
	Total	Total	Total Profits after ability tax		interest	come	assets 1
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1980 1981 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1990	45.8 43.4 44.7 52.7 58.6 65.4 76.4 82.3 80.5 86.1 106.0 98.9 120.2 139.0 162.6 182.4 183.2 178.9 208.9 208.9 208.9 208.9 208.9 139.0 401.8 404.9 375.0 401.8 404.9 375.0 401.8 404.9 375.2 413.6 454.2	42.6 40.0 40.8 48.2 53.8 60.0 70.3 74.9 71.8 76.0 83.6 70.6 91.5 132.0 146.1 138.1 120.7 131.9 221.4 203.8 244.2 275.2 255.2 256.4 278.3 320.5	20.7 19.2 19.5 20.6 22.8 24.0 27.2 29.5 27.8 33.6 33.3 27.2 29.9 40.2 41.5 59.9 67.0 67.0 67.0 67.0 93.5 101.7 99.5 93.9 98.2 117.0	21.9 20.8 21.3 27.5 31.0 36.1 45.4 43.9 42.4 37.9 37.2 43.2 43.4 50.0 68.5 72.1 79.0 68.5 72.1 151.5 128.2 150.8 155.7 162.5 180.1 203.5	3.1 3.5 4.0 4.5 4.8 5.3 6.1 7.4 8.8 10.1 13.2 22.5 28.3 28.7 22.5 22.5 30.6 36.3 45.1 58.2 71.9 82.5 76.7 98.3 105.8 121.6 146.6 148.5 135.3 135.3 135.3	217.2 224.6 230.1 252.8 269.7 292.0 322.8 356.2 372.8 409.3 443.3 543.2 612.0 655.7 700.6 795.7 904.4 1,032.6 1,147.4 1,232.4 1,373.6 1,404.0 1,508.2 1,711.5 1,813.6 2,024.9 2,210.2 2,210.2 2,210.2 2,210.2 2,210.2 2,225.8 2,299.8	392.0 406.9 417.7 431.0 503.4 448.6 471.0 503.9 660.4 729.3 800.2 871.0 955.2 1,076.2 1,273.1 1,468.0 1,512.9 1,779.3 2,000.4 2,283.1 2,606.0 2,938.1 3,180.3 3,300.2 3,435.8 3,606.7 3,744.1 3,889.6 4,101.4 4,327.7 4,516.6 4,634.0 4,698.8 4,827.1

<sup>1.</sup> Structures, equipment, and inventories, valued at current replacement cost. Data are

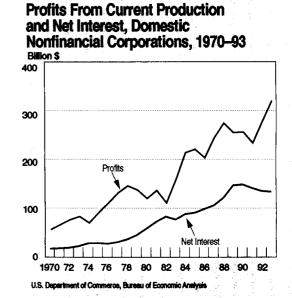
1993, to \$133.7 billion, after decreasing \$6.0 billion

Chart 4 and table 7 provide a perspective on the recent changes in both types of property income. From 1970 to 1990, both types trended up, but net interest, which increased at an average annual rate of 11.4 percent, generally increased much faster than profits, which increased at an average annual rate of 7.8 percent. As a result, the share of net interest in property income rose from 23.0 percent in 1970 to 36.7 percent in 1990.

Since 1990, however, net interest has decreased each year (at an average rate of 3.4 percent); the downtrend reflects the ebbing of the wave of leveraged buyouts that were so prominent in the 1980's, the efforts by corporations to restructure balance sheets, and falling interest rates. Profits, in contrast, decreased only in 1991; in 1992 and 1993, profits increased at an average rate of 17.1 percent. As a consequence, the share of net interest in property income slid to 29.4 percent in 1993.

Further perspective on recent changes in property income can be gained by examining the relationship of property income to the stock of net reproducible assets and to domestic income. Net reproducible assets consist of fixed capital stock and inventories, both of which are measured at current replacement cost; these assets increased 2.7 percent in 1993 after increasing 1.2 percent in 1992. From 1970 to 1990, in contrast, these assets grew at an average rate of 9.0 percent. Domestic income of corporations is property

#### **CHART 4**



averages of end-of-year values for adjacent years.

NOTE.—Property income is profits from current production plus net interest. Profits from current production is corporate profits with inventory valuation adjustment and capital consumption adjustment. Profits after tax is also shown with inventory valuation adjustment and capital consumption adjustment. Current data on most series are shown in table 1.16 of the "Selected NIPA Tables." The value of structures and equipment through 1992 are from Fixed Reproducible Tangible Wealth in the United States, 1925-89, (Washington DC: U.S. Government Printing Office, 1993) and from SURVEY OF CURRENT BUSINESS 73 (September 1993): 64-65. Data on structures and equipment for 1993 and all data on inventories are unpublished RFA estimates.

income plus compensation of employees; it increased 5.7 percent in 1993 after increasing 5.5 percent in 1992.

The ratio of property income to the stock of net reproducible assets is the average rate of return on these assets. The use of property income, rather than profits alone, as the numerator of this ratio captures the total return to investment (profits plus interest) regardless of whether the investment was financed by equity or by debt.<sup>4</sup>

The ratio of property income to domestic income is property income's share of domestic income—that is, the fraction of domestic income that is not used to compensate labor. Property

Table 8.—Rate of Return, Income Share, and Average Product of Capital, Domestic Nonfinancial Corporations, 1959–93

[Percent]

				Percent	·j						
		Ra	te of ret	um		Share of domestic income					
		Prop	erty inc	ome	Property income						
Year			s from c roductio				Prof- its from		Aver- age		
	Total	Total	Prof- its tax liabil- ity	Profits after tax	Net inter- est	Total	cur- rent pro- duc- tion	Net inter- est	prod- uct of cap- ital		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
1959 1960 1961	11.7 10.7 10.7	10.9 9.8 9.8	5.3 4.7 4.7	5.6 5.1 5.1	0.8 .9 .9	21.1 19.3 19.4	19.6 17.8 17.7	1.4 1.5 1.7	0.555 .554 .552		
1962 1963 1964	12.2 13.1 13.9	11.2 12.0 12.7	4.8 5.1 5.1	6.4 6.9 7.7	1.1 1.1 1.1	20.8 21.7 22.4	19.1 19.9 20.6	1.8 1.8 1.8	.587 .604 .621		
1965 1966 1967	15.2 14.9 13.3	14.0 13.6 11.9	5.4 5.4 4.6	8.6 8.2 7.3	1.2 1.3 1.5	23.7 23.1 21.6	21.8 21.0 19.2	1.9 2.1 2.4	.641 .645 .616		
1968 1969 1970	13.0 11.6 9.3	11.5 9.8 7.1	5.1 4.6 3.4	6.4 5.2 3.7	1.5 1.8 2.1	21.0 19.0 16.4	18.6 16.1 12.6	2.5 3.0 3.8	.619 .611 .567		
1971 1972 1973 1974	9.8 10.1 9.9 7.8	7.7 8.1 7.8 5.5	3.4 3.5 3.7	4.3 4.5 4.0 2.2	2.1 2.0 2.1 2.2	17.5 17.7 17.3 15.1	13.8 14.2 13.7 10.8	3.7 3.5 3.7 4.3	.560 .571 .572 .517		
1974 1975 1976	8.2 8.6 9.1	6.2 6.9 7.4	3.3 2.8 3.3 3.4	3.4 3.6 4.1	2.2 2.0 1.7 1.7	17.2 17.5 18.0	13.1 14.0 14.6	4.3 4.1 3.5 3.4	.477 .491 .506		
1977	9.1	7.4	3.4	3.9	1.8	17.7	14.1	3.4	.514		

Source: Table 7.

1979

1981

1982

1983

1984

1986

1988

1989 1990

1991

1993

2.1 2.5 2.1 3.0 4.1 4.2 3.4 3.9 4.2

3.6

3.3

2.2

2.6 2.3 2.6 2.5 2.6 2.7 3.0 3.4 3.3 3.0 4.7 5.2 5.9 5.1 5.0 5.2 5.2 5.3 6.3

9.9 7.9

10.8

12.4

10.6

9.6

15.6 17.6

16.0

17.9

16.7

15.4

.476 .467 .442 .500 .509 .506 .520 .542 .538 .539

2.6 2.2 1.5 1.8

2.0 2.4 2.5 2.3

2.1

4.6 4.7 3.5 4.8 6.2 6.1 5.4 6.3

6.7 5.9

5.0

6.1 7.2 8.8

8.7

8.1

9.7

9.0

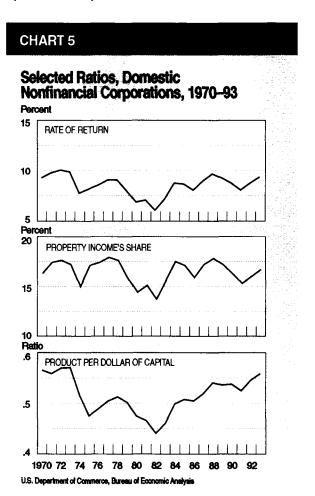
8.1

income's share is related to the rate of return by a third ratio—the ratio of domestic income to the value of net reproducible assets, which measures the average annual product per dollar of capital.<sup>5</sup>

The three ratios are plotted for 1970–93 in chart 5 and are reported, along with related ratios, for 1959–93 in table 8. Property income's rate of return (column 1) and its share of domestic income (column 6) appear to have shifted to lower levels around 1970. The rate of return fell from an average of 12.8 percent in 1959–69 to an average of 8.6 percent in 1970–93; the share of domestic income fell from an average of 21.2 percent to an average of 16.6 percent.

In 1993, property income's rate of return and its share of domestic income continued to rebound from cyclical decreases in 1991 that took the ratios to their lowest levels in almost a decade. Higher profits were responsible for the rebounds in both ratios.

<sup>5.</sup> It should be noted that this ratio is not appropriate for use in productivity analysis; for productivity analysis, the denominator should measure capital services, not capital stock.



<sup>4.</sup> Rates of return can be calculated in many other ways; several are discussed in some detail in the box "Rates of Return" in Survey of Current Business 69 (April 1989): 8.

NOTE.—Columns 1-5 are percentages of the stock of net reproducible assets (structures, equipment, and inventories) valued at current replacement cost. Columns 6-8 are percentages of domestic income. Column 9 is calculated as the ratio of column 1 to column 6.

#### NATIONAL INCOME AND PRODUCT ACCOUNTS

#### Selected NIPA Tables

New estimates in this issue: "Advance" estimates for the first quarter of 1994.

The selected set of national income and product accounts (NIPA) tables shown in this section presents quarterly estimates, which are updated monthly. (In most tables, the annual estimates are also shown.) These tables are available on the day of the gross domestic product (GDP) news release on printouts and diskettes on a subscription basis or from the Commerce Department's Economic Bulletin Board. For order information, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, Washington, DC 20230 or call (202) 606–5304.

Tables containing the estimates for 1929–87 are available in the two-volume set *National Income and Product Accounts of the United States*; see inside back cover for order information. For 1988–92, the complete official time series of NIPA estimates can be found as follows:

	1988	1989	1990–92
Most tables	" Sept. 1993 Survey	July 1992 SURVEY " Sept. 1992 SURVEY Sept. 1993 SURVEY Apr. 1993 SURVEY	Aug. 1993 SURVEY Sept. 1993 SURVEY "

Summary NIPA series back to 1929 are in the September 1993 Survey. Errata to published NIPA tables appear in the September 1992, April 1993, October 1993, and March 1994 issues. NIPA tables are also available, most beginning with 1929, on diskettes or magnetic tape. For more information on the presentation of the estimates, see "A Look at How Bea Presents the NIPA's" in the February 1994 Survey.

Note.—This section of the Survey is prepared by the National Income and Wealth Division and the Government Division.

Table 1.1.—Gross Domestic Product

a	•	
[Billions of dollars]		

			8	ual rates				
	1992	1993	1992	·	19	93		1994
			I۷	I	[]	III	IV	I
Gross domestic product	6,038.5	6,377.9	6,194.4	6,261.6	6,327.6	6,395.9	6,526.5	6,609.4
Personal consumption expenditures	4,139.9	4,391.8	4,256.2	4,296.2	4,359.9	4,419.1	4,492.0	4,549.4
Durable goods Nondurable goods Services	497.3 1,300.9 2,341.6	1,350.0	516.6 1,331.7 2,407.9	1,335.3	1,344.8	1,352.4		577.4 1,376.1 2,595.9
Gross private domestic investment	796.5	891.7	833.3	874.1	874.1	884.0	934.5	978.0
Fixed investment	789.1 565.5 172.6	876.1 623.7 178.7	821.3 579.5 171.1	594.7	619.1	624.9		943.8 664.7 178.9
equipment	392.9 223.6	252.4	241.8	244.9	241.9	251.3	271.6	
inventories Nonfarm Farm	7.3 2.3 5.0	21.1	9.5	33.0	16.8	7.7 22.6 -14.9	12.0	34.2 33.7 .5
Net exports of goods and services	-29.6	-63.6	38.8	-48.3	65.1	-71.9	69.1	82.4
Exports	640.5 670.1							
Government purchases	1,131.8	1,158.1	1,143.8	1,139.7	1,158.6	1,164.8	1,169.1	1,164.4
Federal  National defense  Nondefense  State and local	448.8 313.8 135.0 683.0	303.4 140.1	315.7 136.7	304.8 137.9	307.6 140.0	301.9 141.7	299.2 140.7	292.8 141.2

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 1.2.—Gross Domestic Product in Constant Dollars
[Billions of 1987 dollars]

			1007 001					
			5	Seasonall	y adjuste	ed at ann	ual rates	
	1992	1993	1992		19	93		1994
			IV	- 1	11	III	IV	Ī
Gross domestic product	4,986.3	5,136.0	5,068.3	5,078.2	5,102.1	5,138.3	5,225.6	5,259.0
Personal consumption expenditures	3,341.8	3,453.2	3,397.2	3,403.8	3,432.7	3,469.6	3,506.9	3,539.8
Durable goods Nondurable goods Services	456.6 1,062.9 1,822.3		1,081.8	471.9 1,076.0 1,855.9	1,083.1	1,093.0		
Gross private domestic investment	732.9	820.3	763.0	803.0	803.6	813.4	861.4	896.7
Fixed investment	726.4 529.2 150.6	591.8	754.3 543.7 148.0		790.6 584.3 151.1	806.9 594.8 151.2		
equipment Residential Change in business	378.6 197.1		395.7 210.6		433.2 206.2	443.6 212.1	227.2	232.2
inventories Nonfarm Farm	6.5 2.7 3.8	19.7	7.5				12.9	
Net exports of goods and services	-33.6	<b>-76.5</b>	-38.8	_59.9	<b>-75.2</b>	<b>–86.3</b>	<b>–84.5</b>	_104.2
Exports	578.0 611.6							
Government purchases	945.2	938.9	946.9	931.3	941.1	941.7	941.7	926.8
Federal  National defense  Nondefense  State and local	373.0 261.2 111.8 572.2	242.4 112.5	261.3 112.4	246.0 111.5	246.4 113.0	240.1 113.7	237.1 111.8	228.4 109.6

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 1.3.—Gross Domestic Product by Major Type of Product

			8	Seasonal	y adjuste	ed at ann	nual rates	3
	1992	1993	1992		19	93		1994
			IV	1	11	III	IV	ı
Gross domestic product	6,038.5	6,377.9	6,194.4	6,261.6	6,327.6	6,395.9	6,526.5	6,609.4
Final sales of domestic product	6,031.2 7.3				6,314.5 13.1			
Goods I					2,408.1		Į į	
Final sales Change in business inventories	2,305.5 7.3				2,395.0 13.1	,	i	,
Durable goods Final sales Change in business	977.9 975.8	1,047.9 1,037.0	1,007.1 1,008.3	1,018.6 1,003.5	1,040.5 1,037.8	1,047.7 1,032.9	1,084.7 1,073.7	1,118.0 1,087.9
inventories	2.0	10.9	-1.2	15.0	2.7	14.8	11.0	30.1
Nondurable goods Final sales Change in business					1,367.5 1,357.1			
inventories	5.3	4.7	13.2	19.5	10.4	-7.2	-4.1	4.1
Services 1	3,221.1	3,410.5	3,296.1	3,341.8	3,388.1	3,437.8	3,474.3	3,516.5
Structures	504.6	545.5	520.8	522.4	531.5	548.7	579.5	573.1

<sup>1.</sup> Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Table 1.5.—Relation of Gross Domestic Product, Gross Domestic Purchases, and Final Sales to Domestic Purchasers

[Billions of dollars]

Gross domestic product	6,038.5	6,377.9	6,194.4	6,261.6	6,327.6	6,395.9	6,526.5	6,609.4
Less: Exports of goods and services	640.5 670.1							
Equals: Gross domestic purchases 1	6,068.2	6,441.5	6,233.2	6,309.9	6,392.7	6,467.8	6,595.6	6,691.8
Less: Change in business inventories	7.3	15.6	12.0	34.6	13.1	7.7	6.9	34.2
Equals: Final sales to domestic purchasers <sup>2</sup>	6,060.8	6,425.9	6,221.2	6,275.4	6,379.5	6,460.1	6,588.7	6,657.6

Table 1.7.—Gross Domestic Product by Sector [Billions of dollars]

		_						
Gross domestic product	6,038.5	6,377.9	6,194.4	6,261.6	6,327.6	6,395.9	6,526.5	6,609.4
Business	5,114.4	5,404.5	5,254.4	5,303.0	5,359.0	5,416.6	5,539.5	5,607.9
Nonfarm		515.9 82.4	4,639.6 499.1 83.6	4,674.0 510.8	512.7 83.3	4,812.8 517.4 73.2	4,926.4 522.8 89.2	4,967.7 541.0
Households and institutions	267.0	286.3	275.7	280.3	284.7	288.1	292.3	297.8
Private households Nonprofit institutions	10.1 256.9							
General government	657.1	687.1	664.3	678.4	683.9	691.2	694.7	703.7
FederalState and local	199.8 457.3	207.0 480.1	198.7 465.6		206.2 477.7			
Addendum: Gross domestic business product less housing	4,608.9							

Table 1.4.—Gross Domestic Product by Major Type of Product in Constant Dollars

[Billions of 1987 dollars]

				Seasonal	y adjuste	ed at ann	nual rates	3
	1992	1993	1992		19	93		1994
			IV	1	11	III	IV	ı
Gross domestic product	4,986.3	5,136.0	5,068.3	5,078.2	5,102.1	5,138.3	5,225.6	5,259.0
Final sales of domestic product	4,979.8 6.5	· ·					5,217.1 8.5	
Goods 1	2,005.7	2,083.8	2,057.7	2,060.2	2,069.1	2,074.9	2,130.9	2,161.0
Final salesChange in business inventories	1,999.2 6.5			1			2,122.5 8.5	
Durable goods Final sales Change in business	914.0 911.7			951.2 938.2	968.9 964.9		1,022.2 1,010.5	
inventories	2.4	10.6	8	13.0	3.9	13.9	11.7	26.9
Nondurable goods Final sales Change in business	1,087.6	1,098.9	1,106.4	1,092.7	1,091.1	1,099.8	1,108.7 1,111.9	1,109.7
inventories	4.1	ł .	1				-3.2	
Services 1	2,534.7	2,586.4	2,556.5	2,565.3	2,577.5	2,596.7	2,606.0	2,617.7
Structures	445.8	465.9	454.2	452.7	455.5	466.6	488.7	480.3

<sup>1.</sup> Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Table 1.6.—Relation of Gross Domestic Product, Gross Domestic Purchases, and Final Sales to Domestic Purchasers in Constant **Dollars** 

Gross domestic product	4,986.3	5,136.0	5,068.3	5,078.2	5,102.1	5,138.3	5,225.6	5,259.0
Less: Exports of goods and services	578.0	598.3	591.6	588.0	593.2	591.9	620.0	605.0
services	611.6	674.8	630.3	647.9	668.4	678.2	704.5	709.3
Equals: Gross domestic purchases 1	5,019.9	5,212.5	5,107.1	5,138.1	5,177.4	5,224.6	5,310.0	5,363.3
Less: Change in business inventories	6.5	14.3	8.7	29.3	13.0	6.5	8.5	30.5
Equals: Final sales to domestic purchasers <sup>2</sup>	5,013.4	5,198.2	5,098.4	5,108.8	5,164.3	5,218.1	5,301.6	5,332.8

Table 1.8.—Gross Domestic Product by Sector in Constant Dollars [Billions of 1987 dollars]

Gross domestic product	4,986.3	5,136.0	5,068.3	5,078.2	5,102.1	5,138.3	5,225.6	5,259.0			
Business	4,267.6	4,408.0	4,346.2	4,353.9	4,374.1	4,408.4	4,495.4	4,527.3			
Nonfarm		74.4	3,839.3 400.7 79.7	3,844.8 402.6 78.2	3,883.7 404.4 76.2	3,924.0 406.1 67.5	4,010.6 408.1 75.7	4,036.6 410.0 79.7			
Households and institutions	209.1	217.0	212.4	213.5	216.8	218.4	219.4	221.1			
Private households Nonprofit institutions	8.8 200.4										
General government	509.5	511.1	509.8	510.8	511.3	511.5	510.8	510.6			
FederalState and local	150.5 359.0	147.2 363.9			147.8 363.4		145.1 365.7	143.9 366.7			
Addendum: Gross domestic business product less housing	3,864.9										

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

<sup>1.</sup> Purchases by U.S. residents of goods and services wherever produced.
2. Final sales to U.S. residents of goods and services wherever produced.

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Purchases by U.S. residents of goods and services wherever produced.
 Final sales to U.S. residents of goods and services wherever produced.

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 1.9.—Relation of Gross Domestic Product, Gross National Product, Net National Product, National Income, and Personal Income

			Seasonally adjusted at annual rates					
				easonal	y adjuste	o at ani	iuai rates	·
	1992	1993	1992		19	93		1994
			IV	1	=	111	IV	ı
Gross domestic product	6,038.5	6,377.9	6,194.4	6,261.6	6,327.6	6,395.9	6,526.5	6,609.4
Plus: Receipts of factor income from the rest of the world <sup>1</sup>	129.2	131.7	122.3	122.8	131.9	135.1	137.2	***************************************
income to the rest of the world 2	121.9	131.6	124.8	122.4	132.3	128.7	142.8	
Equals: Gross national product	6,045.8	6,378.1	6,191.9	6,262.1	6,327.1	6,402.3	6,520.9	
Less: Consumption of fixed capital	657.9	671.3	648.0	663.2	663.3	679.7	679.0	734.5
consumption allowances Less: Capital consumption	605.7	630.0	612.1	622.3	624.8	636.3	636.4	664.9
adjustment	-52.1	-41.3	-36.0	-40.9	-38.4	-43.4	-42.6	-69.5
Equals: Net national product	5,387.9	5,706.8	5,543.9	5,598.8	5,663.9	5,722.6	5,841.9	
Less: Indirect business tax and nontax liability	502.8	530.5	515.7	515.6	526.2	532.4	547.7	549.7
payments Statistical discrepancy Plus: Subsidies less current	27.6 23.6	27.9 15.2	28.1 32.1	27.0 34.4		28.4 13.3	28.3 1.2	28.3
surplus of government enterprises	2.7	7.0	7.7	17.1	6.1	-5.3	10.3	7.2
Equals: National income	4,836.6	5,140.3	4,975.8	5,038.9	5,104.0	5,143.2	5,275.0	
Less: Corporate profits with inventory valuation and capital consumption								
adjustments  Net interest  Contributions for	407.2 442.0	466.6 445.6	439.5 447.7	432.1 450.1	458.1 443.2	468.5 444.6	507.9 444.5	
social insurance Wage accruals less	555.6	585.3	564.6	568.9	585.9	590.5	595.9	613.7
disbursements Plus: Personal interest income Personal dividend	-20.0 694.3	20.0 695.2	-80.0 694.5	80.0 695.4	0 693.1	0 695.7	0 696.7	0 700.2
income	140.4	158.3	152.3	157.0	157.8	159.0	159.4	160.7
persons	836.8	890.2	855.4	873.0	883.7	896.4	907.5	922.6
persons	21.6		22.0	21.4				22.0
Equals: Personal income	5,144.9	5,388.3	5,328.3	5,254.7	5,373.2	5,412.7	5,512.7	5,578.
Addenda:  Net domestic product  Domestic income  Gross national income	5,380.7 4,829.4 6,022.2	5,140.1	4,978.3		5,104.5	5,136.8	5,847.5 5,280.6 6,519.7	

<sup>1.</sup> Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

Table 1.10.—Relation of Gross Domestic Product, Gross National Product, Net National Product, and National Income in Constant Dollars

[Billions of 1987 dollars]

			\$	Seasonall	ly adjuste	ed at ann	ual rates	3
	1992	1993	1992		19	93		1994
			IV	1	11	III	IV	
Gross domestic product	4,986.3	5,136.0	5,068.3	5,078.2	5,102.1	5,138.3	5,225.6	5,259.0
Plus: Receipts of factor income from the rest of the world <sup>1</sup>	105.5 97.7	104.7 102.2						
Equals: Gross national product	4,994.0	5,138.6	5,068.4	5,080.7	5,104.1	5,145.8	5,223.7	
Less: Consumption of fixed capital	595.0	598.6	584.0	595.0	592.5	604.4	602.4	648.9
Equals: Net national product	4,399.0	4,540.0	4,484.4	4,485.8	4,511.6	4,541.4	4,621.3	
Less: Indirect business tax and nontax liability plus business transfer payments less subsidies plus current surplus of government enterprises	402.0 19.7	417.5 12.5						
Equals: National income	3,977.3	4,110.1	4,048.6	4,045.9	4,087.0	4,111.4	4,196.0	
Addenda:  Net domestic product  Domestic income  Gross national income	4,391.2 3,969.5 4,974.3	4,537.5 4,107.5 5,126.1	4,484.4 4,048.5 5,041.9	4,483.3 4,043.4 5,052.5	4,509.6 4,085.0 5,094.3	4,533.8 4,103.9 5,135.0	4,623.2 4,197.8 5,222.7	4,610.1

Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

Table 1.11.—Command-Basis Gross National Product in Constant **Dollars** 

4,994.0	5,138.6	5,068.4	5,080.7	5,104.1	5,145.8	5,223.7	
009.3	119.5	092.4	700.4	712.0	710.1	740.0	
4,999.8	5,155.0	5,070.3	5,094.8	5,118.4	5,164.9	5,241.9	
100.9	102.3	100.3	102.0	102.1	102.7	102.5	
	683.5 689.3 <b>4,999.8</b>	683.5 703.0 689.3 719.5 <b>4,999.8 5,155.0</b>	683.5 703.0 690.4 689.3 719.5 692.4 4,999.8 5,155.0 5,070.3	683.5 703.0 690.4 686.4 689.3 719.5 692.4 700.4 4,999.8 5,155.0 5,070.3 5,094.8	683.5 703.0 690.4 686.4 698.1 689.3 719.5 692.4 700.4 712.5 4,999.8 5,155.0 5,070.3 5,094.8 5,118.4	683.5 703.0 690.4 686.4 698.1 699.0 689.3 719.5 692.4 700.4 712.5 718.1 4,999.8 5,155.0 5,070.3 5,094.8 5,118.4 5,164.9	689.3 719.5 692.4 700.4 712.5 718.1 746.8 4,999.8 5,155.0 5,070.3 5,094.8 5,118.4 5,164.9 5,241.9

<sup>1.</sup> Exports of goods and services and receipts of factor income deflated by the implicit price deflator for

Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

in parts of goods and services and payments of factor income.

2. Ratio of the implicit price deflator for exports of goods and services and receipts of factor income.

2. Ratio of the implicit price deflator for exports of goods and services and receipts of factor income to the corresponding implicit price deflator for imports with the decimal point shifted two places to the right.

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 1.14.—National Income by Type of Income [Billions of dollars]

		[5,111,011,0	- 40141	~, 				
-				Seasonal	ly adjuste	ed at ani	nual rates	 }
	1992	1993	1992		19	93		1994
			IV		П	lif	IV	1
National income	4,836.6	5,140.3	4,975.8	5,038.9	5,104.0	5,143.2	5,275.0	
Compensation of employees	3,582.0	3,772.2	3,658.6	3,705.1	3,750.6	3,793.9	3,839.2	3,907.2
Wages and salaries Government Other	2,953.1 567.5 2,385.6	3,100.5 589.7 2,510.8	3,015.8 574.2 2,441.6	3,054.3 584.1 2,470.2	3,082.7 586.3 2,496.3	3,115.4 592.8 2,522.6	3,149.6 595.4 2,554.2	3,200.7 602.0 2,598.8
Supplements to wages and salaries Employer contributions	629.0	671.7	642.8	650.7	668.0	678.5	689.6	706.5
for social insurance Other labor income	306.3 322.7	321.0 350.7	311.3 331.5	312.2 338.5	321.4 346.6	323.8 354.7	326.7 362.9	334.5 371.9
Proprietors' income with IVA and CCAdj	414.3	443.2	431.2	444.1	439.4	422.5	467.0	475.6
Farm	43.7	46.0	47.6	55.7	47.0	24.8	56.4	60.0
Proprietors' income with IVA CCAdj	51.2 -7.5	53.1 -7.1	54.8 -7.2	62.8 -7.1	54.1 -7.1	32.1 -7.3	63.5 -7.0	67.0 7.0
Nonfarm Proprietors' income IVA	370.6 358.0 5	397.3 385.3 -1.0	383.6 362.2 7.8	388.4 376.4 -1.6	392.4 380.3 1.2	397.6 385.4 4	399.2	415.6 405.2 -1.0
CCAdj	13.1	13.0	13.7	13.7	13.3	12.7	12.3	11.5
Rental income of persons with CCAdj	-8.9	12.6	-1.2	7.5	12.7	13.7	16.4	3.5
Rental income of persons CCAdj	57.4 -66.3	75.2 62.6	57.4 -58.6	71.3 –63.8	73.2 -60.4	77.2 -63.5	79.0 62.6	89.1 -85.6
Corporate profits with IVA and CCAdj	407.2	466.6	439.5	432.1	458.1	468.5	507.9	
Corporate profits with IVA Profits before tax Profits tax liability Profits after tax Dividends Undistributed profits IVA	390.1 395.4 146.3 249.1 150.5 98.6 -5.3	442.3 449.4 174.0 275.4 169.0 106.4 -7.1	414.8 409.9 155.0 254.9 162.9 92.0 4.9	258.9 167.5 91.4	433.4 445.6 173.3 272.3 168.5 103.9 -12.2	444.8 443.8 169.5 274.3 169.7 104.6 1.0	488.4 192.5 295.9 170.3 125.6	171.7
CCAdj	17.1	24.3	24.7	25.1	24.7	23.8	23.9	20.6
Net interest	442.0	445.6	447.7	450.1	443.2	444.6	444.5	
Addenda: Corporate profits after tax with IVA and CCAdj Net cash flow with IVA	260.9	292.6	1			299.1		***************************************
and CAdj Undistributed profits with IVA and CCAdi	507.0 110.4	532.4 123.6	1		521.5 116.3	' ' '	ļ	
Consumption of fixed capital	396.6	408.8	1	402.2		414.0		432.8
Less: IVA Equals: Net cash flow	-5.3 512.3	-7.1 539.5	4.9 513.2	-12.7 518.7	-12.2 533.7	1.0 542.3	-4.3	-17.7

Table 1.16.—Gross Domestic Product of Corporate Business in Current Dollars and Gross Domestic Product of Nonfinancial Corporate Business in Current and Constant Dollars

Corporate business	Seasonally adjusted at annual rates							
				seasonai			iuai rates	
	1992	1993	1992	<del></del>		93		1994
			IV	-			IV	
				Billions o	of dollars			
Gross domestic product of corporate business	3,571.7	3,784.1	3,668.8	3,678.4	3,759.2	3,803.8	3,895.2	
Consumption of fixed capital	396.6	408.8			405.2	414.0	413.9	432.8
Net domestic product	3,175.1	3,375.3	3,272.3	3,276.2	3,354.0	3,389.8	3,481.3	
Indirect business tax and nontax liability plus business transfer								
payments less subsidies	359.6		368.3	! i				
Domestic income Compensation of		2,996.9			2,976.8		· ·	
employees Wages and salaries Supplements to wages	1,940.9	2,038.4	1,983.9	l	2,029.0	2,048.7	2,073.3	
and salaries Corporate profits with	396.5	421.8	406.3	405.3	419.7	427.0	435.0	446.7
IVA and CCAdj Profits before tax	344.9 333.2	407.9 390.7	384.8 355.2	360.7	400.0 387.5	405.8 381.1	433.3	
Profits tax liability Profits after tax	146.3 186.9	174.0 216.6	155.0 200.2		173.3 214.3	169.5 211.6		
Dividends	127.3	155.0	147.4		152.9	152.5		
Undistributed profits	59.6	61.6	52.8	43.2	61.4		82.9	
CCAdj Net interest	-5.3 17.1 133.2	-7.1 24.3 128.7	4.9 24.7 128.9	12.7 25.1 129.9	-12.2 24.7 128.1	1.0 23.8 127.9	-4.3 23.9 129.0	-17.7 20.6
Gross domestic product of financial corporate business	328.3	366.8	337.2	346.7	363.3	371.6	385.8	
Gross domestic product of nonfinancial	2 242 4	2 417 2	2 221 6	2 224 7	3,395.9	2 420 0	3 500 4	
corporate business  Consumption of fixed capital	352.7	i '			l '			ł
Net domestic product					3,036.8		l	
Indirect business tax and nontax liability plus business transfer					,			
payments less subsidies	327.7	345.2	l	ļ	ł			l .
Compensation of	1	<b>,</b>		l '	2,692.8 2,244.7			
employees Wages and salaries Supplements to wages	1,782.4	1,866.4	1,820.0	1,840.3	1,857.3	2,267.1 1,873.3		
and salaries Corporate profits with	367.0	389.2	375.9	374.7	387.4	393.8	400.9	411.2
IVA and CCAdj Profits before tax Profits tax liability Profits after tax Dividends	278.3 255.1 98.2 156.9 105.2	291.6 117.0 174.7	314.1 273.2 105.8 167.4 120.7	268.4 106.4 162.0	117.6 173.6	318.2 281.8 112.5 169.3 124.0	325.2 131.4 193.7	
Undistributed profits IVACCAdj	51.7 5.3 28.5		46.7 4.9 36.0	-12.7 36.4			-4.3 35.9	-17.7 33.5
Net interest	135.3	133.7	133.9	134.9	133.1	132.8	134.0	
			Bill	lions of 1	987 dolla	ars		
Gross domestic product of nonfinancial corporate business	2 822 3	2,936.3	2 887 4	2 867 5	2,916.6	2 948 9	3,012.1	
Consumption of fixed capital	318.4	1 '	317.2		· ·	l '	1	
Net domestic product					2,595.2			
business transfer payments less subsidies Domestic income	258.7 2,245.2	270.2 2,341.9		265.7 2,280.8	268.4 2,326.8	271.6 2,349.3	275.1 2,410.5	277.8

Table 2.1.—Personal Income and Its Disposition

	Seasonally adjusted at annual rates							
	1992	1993	1992		19	93		1994
			IV	I	II	III	IV	ı
Personal income	5,144.9	5,388.3	5,328.3	5,254.7	5,373.2	5,412.7	5,512.7	5,578.1
Wage and salary disbursements	2,973.1	3,080.5	3,095.8	2,974.3	3,082.7	3,115.4	3,149.6	3,200.7
Commodity-producing industries	756.5	763.6	783.3	740.7	765.1	769.4	779.3	789.5
Manufacturing	577.6	577.3	602.0	559.7	580.3	581.5	587.8	595.8
Distributive industries Service industries	682.0 967.0	706.6	709.9 1,028.4	682.9 966.6	709.1 1,022.2	714.4 1,038.8	720.1 1,054.7	733.5 1,075.8
Government	567.5	589.7	574.2	584.1	586.3	592.8	595.4	602.0
Other labor income	322.7	350.7	331.5	338.5	346.6	354.7	362.9	371.9
Proprietors' income with inventory valuation and capital consumption adjustments	414.3	443.2	431.2	444.1	439.4	422.5	467.0	475.6
Farm	43.7	46.0	47.6	55.7	47.0	24.8	56.4	60.0
Nonfarm	370.6	397.3	383.6	388.4	392.4	397.6	410.6	415.6
Rental income of persons with capital consumption								
adjustment	-8.9	12.6	-1.2	7.5	12.7	13.7	16.4	3.5
Personal dividend income	140.4	158.3	152.3	157.0	157.8	159.0	159.4	160.7
Personal interest income	694.3	695.2	694.5	695.4	693.1	695.7	696.7	700.2
Transfer payments to	]							
persons Old-age, survivors, disability, and health	858.4	912.1	877.4	894.4	905.5	918.5	929.8	944.6
insurance benefits Government unemployment	413.9	438.4	420.8	433.1	435.0	439.4	446.1	457.6
insurance benefits Veterans benefits	39.2 19.3	34.1 20.0	37.8 19.0	34.5 20.0	34.4 20.2	35.1 20.1	32.3 19.6	26.9 19.9
Government employees retirement benefits	108.3	115.5	110.2	112.8	114.6	116.4	118.3	119.0
Other transfer payments Aid to families with	277.7	304.1	289.7	294.0	301.3	307.5	313.5	321.2
dependent children Other	23.3 254.4	23.9 280.2	23.5 266.2	23.6 270.4	24.1 277.2	24.0 283.5	24.1 289.4	23.9 297.3
Less: Personal								
contributions for social insurance	249.3	264.3	253.3	256.6	264.5	266.8	269.2	279.1
Less: Personal tax and nontax payments	644.8	681.6	670.7	657.1	681.0	689.0	699.2	715.7
Equals: Disposable personal income	4,500.2	4,706.7	4,657.6	4,597.5	4,692.2	4,723.7	4,813.5	4,862.4
Less: Personal outlays	4,261.5	4,516.8	4,377.9	4,419.7	4,483.6	4,544.0	4,620.1	4,680.4
Personal consumption expenditures Interest paid by persons Personal transfer payments	4,139.9 111.1	4,391.8 114.0	4,256.2 111.3		4,359.9 112.7	4,419.1 114.1		
to rest of the world (net)	10.4	11.0	10.5	11.0	11.0	10.8	11.2	11.7
Equals: Personal saving	238.7	189.9	279.7	177.9	208.7	179.7	193.4	182.0
Addenda: Disposable personal income:								
Total, billions of 1987 dollars Per capita:	3,632.5	3,700.9	3,717.6	3,642.6	3,694.4	3,708.7	3,757.9	3,783.3
Current dollars	17,615 14,219		18,153 14,490		18,196 14,326	18,265 14,341	18,561 14,491	18,705 14,554
Population (mid-period, millions)	255.5	1	ŀ	ŀ	257.9	258.6	259.3	
Personal saving as percentage of disposable personal income	5.3	4.0	6.0	3.9	4.4	3.8	4.0	3.7
					Щ			

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 2.2.—Personal Consumption Expenditures by Major Type of Product

[Billions of dollars]

			\$	Seasonal	y adjuste	ed at ann	ual rates	3
	1992	1993	1992		19	93		1994
			IV	ı	11	LIII	IV	1
Personal consumption expenditures	4,139.9	4,391.8	4,256.2	4,296.2	4,359.9	4,419.1	4,492.0	4,549.4
Durable goods	497.3	537.9	516.6	515.3	531.6	541.9	562.8	577.4
Motor vehicles and parts Furniture and household	204.3	222.3	213.7	211.7	220.8	221.7	235.1	250.0
equipment Other	194.5 98.5		202.7 100.2	203.3 100.3		214.0 106.2	220.8 106.9	219.8 107.6
Nondurable goods	1,300.9	1,350.0	1,331.7	1,335.3	1,344.8	1,352.4	1,367.5	1,376.1
Food	633.7 228.2 103.4 13.8 321.8	103.7	236.1 105.2 13.9	106.0 15.1	103.6 14.9	102.4 15.4	242.7	671.7 243.2 101.4 16.9 342.8
Services	2,341.6	2,503.9	2,407.9	2,445.5	2,483.4	2,524.8	2,561.8	2,595.9
Housing  Household operation  Electricity and gas  Other household	600.0 234.4 105.8	627.9 251.2 113.4				631.1 255.2 116.4		256.5
operation Transportation Medical care Other	128.7 155.4 628.4 723.5	137.8 170.0 680.9 773.8	162.4	166.3		138.7 170.9 686.9 780.7	699.2	

Table 2.3.—Personal Consumption Expenditures by Major Type of Product in Constant Dollars

Personal consumption expenditures	3,341.8	3,453.2	3,397.2	3,403.8	3,432.7	3,469.6	3,506.9	3,539.8
Durable goods	456.6	490.0	473.4	471.9	484.2	493.1	510.9	522.9
Motor vehicles and parts Furniture and household	182.3	191.7	188.6	185.7	191.3	189.9	199.7	211.7
equipment Other	194.8 79.5		204.2 80.6		212.4 80.6	219.4 83.7	227.1 84.1	227.2 84.0
Nondurable goods	1,062.9	1,088.1	1,081.8	1,076.0	1,083.1	1,093.0	1,100.2	1,106.7
Food	520.5 193.7 83.9 11.9 252.9	199.5 84.9 13.0	200.0 84.4 11.9	194.8 83.9 12.9	197.8 84.1 12.6	200.6 86.2 13.2	204.6 85.4 13.1	205.5 84.6 14.5
Services	1,822.3	1,875.2	1,842.0	1,855.9	1,865.4	1,883.5	1,895.8	1,910.2
Household operation	484.2 211.7 95.3	218.9		217.9		220.8	221.3	222.8
Other household operation	116.4 122.7 449.2 554.4	126.3 463.4	123.7 453.2	458.0	126.1 461.1	126.5 465.1	128.0 469.3	128.7 472.7

Table 3.2.—Federal Government Receipts and Expenditures
[Billions of dollars]

Seasonally adjusted at annual rates 1994 1992 1993 1992 1993 ١V ١V 1 Ш 1,269.5 1,183.0 1,221.1 1,218.4 1,268.0 1,275.9 1,315.7 Receipts ..... Personal tax and nontax 549.0 receipts ... Income taxes ...... Estate and gift taxes ..... 506.0 13.2 1.5 478.0 11.3 506.7 13.0 498.3 12.1 489. 11. 512.7 12.8 519.0 14.4 532.5 14.6 Nontaxes 1.6 1.5 1.7 1.9 132.4 15.7 116.7 120.2 Corporate profits tax accruals 143.1 127.1 142.4 139.3 158. Federal Reserve banks ..... 15.8 111.3 15.3 127.2 16.8 15.1 Other ...... 103.5 127.7 142.8 Indirect business tax and 83.5 92.9 81.3 87.3 86.7 95.0 nontax accruals ...... 81.5 86.2 Excise taxes Customs duties ..... 18.3 19.8 19.1 18.8 15.3 20.4 17.3 20.0 17.8 20.1 19.6 Nontaxes 16.2 17.2 18.0 18.3 18.9 Contributions for social insurance 490.7 517.8 498.7 502.3 518.7 522.8 527.5 544.6 ,495.9 ,488.5 ,522.6 1,497.1 Expenditures 1,459.3 ,485.3 1,481.9 ,490.6 447.5 307.6 Purchases 448.8 443.4 452.4 442.7 443.6 440.0 434.0 National defense ..... 304.8 137.9 303.4 301.9 292.8 313.8 315.7 136.7 Nondefense 135.0 140.1 140.0 141.7 140.7 141.2 624.5 608.2 642.0 628.9 645.6 632.7 652.8 639.1 667.2 643.7 665.2 652.3 Transfer payments (net) ....... 651.9 636.1 617.1 To rest of the world (net) ... 15.8 13. 13.7 12.8 Grants-in-aid to State and 176.7 197.4 187.9 local governments ...... 171 4 186.2 176.1 182.8 188 6 Net interest paid ......Interest paid ..... 178.3 187.1 180.8 181.3 182.5 182.2 180.4 174.8 219.0 176.9 219.9 216.4 175.0 219.9 To persons and business To rest of the world (net) Less: Interest received by 175.0 172.4 178.7 176.7 174.0 169.1 42.5 41.6 43.2 43.2 43.2 41.2 41.4 42.1 36.7 35.1 35.7 36.5 37.7 36.7 37.5 32.8 government Subsidies less current surplus of government enterprises Subsidies ..... 42.9 43.7 32.3 35.9 37.7 35.1 37.7 36.2 36.1 24.8 40.5 Less: Current surplus of 2.7 2.9 2.8 2.5 government enterprises 4.1 3.6 3.4 Less: Wage accruals less disbursements ..... 0 0 0 0 0 0 0 0 Surplus or deficit (--), national income and product accounts .... -276.3 -226.4 -264.2 -263.5 -222.6 -212.7 -207.0 Social insurance funds .. 30.2 57.2 -308.5 -267.8 300.6 -293.7 -267.8 -257.4 -252.3

Table 3.3.—State and Local Government Receipts and Expenditures
[Billions of dollars]

		{Dillollo	or dollar.	-,				
			9	Seasonall	y adjuste	ed at ann	ual rates	3
	1992	1993	1992		19	93		1994
			١٧	1	11	Ш	IV	ı
Receipts	837.8	888.1	861.6	860.2	881.0	894.2	917.0	
Personal tax and nontax receipts	154.0 116.7 18.3 19.0	160.3 120.8 19.7 19.9	158.8 120.8 18.8 19.2	155.0 116.4 19.2 19.5	160.3 121.0 19.5 19.8	162.0 122.1 19.8 20.0	164.1 123.6 20.2 20.3	166.6 125.5 20.5 20.6
Corporate profits tax accruals	26.0	31.0	27.9	28.5	30.8	30.1	34.4	
Indirect business tax and nontax accruals	421.5 200.8 177.7 43.0	443.1 211.7 186.9 44.5	432.2 205.7 181.4 45.1	434.1 206.5 183.9 43.6	440.0 209.3 186.5 44.3	445.7 212.8 187.9 45.0	452.7 218.2 189.3 45.2	456.7 220.2 190.8 45.7
Contributions for social insurance	64.9	67.4	65.9	66.5	67.2	67.7	68.3	69.0
Federal grants-in-aid	171.4	186.2	176.7	176.1	182.8	188.6	197.4	187.9
Expenditures	830.6	886.2	848.0	859.4	880.0	895.9	909.7	916.7
Purchases  Compensation of employees  Other	683.0 457.3 225.7	714.6 480.1 234.5	691.4 465.6 225.7	697.0 472.1 224.9	711.1 477.7 233.4	721.2 483.0 238.3	729.2 487.6 241.6	730.3 492.9 237.4
Transfer payments to persons	228.6	254.1	238.4	244.1	251.0	257.2	263.9	270.2
Net interest paid Interest paid Less: Interest received by government	-46.0 66.1 112.1	-45.3 68.7 113.9	-45.7 67.1	-45.5 67.7 113.2	-45.3 68.4 113.7	-45.2 69.0 114.2	-45.0 69.6	-44.9
Less: Dividends received by government	10.2	10.7	10.5	10.5	10.7	10.8	10.9	11.0
Subsidies less current surplus of government enterprises . Subsidies	-24.8 .4 25.2	-26.5 .5 27.0	-25.5 .4 25.9	-25.8 .4 26.2	-26.2 .5 26.6	-26.7 .5 27.1	-27.4 .5 27.9	-27.9 .5
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Surplus or deficit (-), national income and product accounts	7.2	1.8	13.5	.8	1.1	-1.7	7.2	
Social insurance funds Other	59.4 -52.2	58.6 -56.7	59.6 -46.0	59.0 -58.2	58.9 -57.8	58.5 -60.2	57.9 -50.7	57.2 

Table 3.7B.—Government Purchases by Type

				Seasonal	ly adjuste	ed at ann	nual rates	3
	1992	1993	1992		19	93		1994
			IV	ı	II	111	IV	ı
Government purchases	1,131.8	1,158.1	1,143.8	1,139.7	1,158.6	1,164.8	1,169.1	1,164.4
Federal	448.8	443.4	452.4	442.7	447.5	443.6	440.0	434.0
National defense	313.8 79.0 10.3 218.9		315.7 78.9 9.8 221.0	304.8 74.4 9.0 216.4		67.4 9.3	65.1 9.1	292.8 62.2 8.0 217.5
employees	135.7 90.7 45.0 83.2 5.6	137.0 91.0 46.0 81.2 5.3	133.7 89.2 44.5 87.3 6.0	137.2 91.5 45.7 79.1 5.0	136.4 91.2 45.2 80.6 5.0	90.7 47.2	136.3 90.5 45.8 83.5 5.2	138.1 91.6 46.5 79.4 5.2
Nondefense  Durable goods  Nondurable goods  Commodity Credit  Corporation	<b>135.0</b> 7.1 8.6	<b>140.1</b> 7.5 7.2	1 <b>36.7</b> 7.4 9.3	137.9 7.3 7.8	<b>140.0</b> 7.9 7.6	141.7 7.3 7.3	140.7 7.3 6.3	<b>141.2</b> 7.0 6.4
inventory change Other nondurables Services Compensation of	7 9.2 109.0	3 7.5 114.6	0 9.3 109.7	4 8.1 112.2	3 7.9 114.3	2 7.5 116.1	2 6.5 115.6	2 6.6 116.9
employees Other services Structures	64.1 44.9 10.3	70.0 44.6 10.8	65.0 44.7 10.3	69.0 43.2 10.5	44.6	70.4 45.7 11.0	70.8 44.8 11.5	72.6 44.3 10.9
State and local	683.0	714.6	691.4	697.0	711.1	721.2	729.2	730.3
Durable goods	37.6 60.2 485.3	39.3 62.2 506.9	38.2 60.7 493.5	38.7 61.7 499.6	39.2 63.0 504.4	39.7 62.3 509.9		40.4 63.0 519.9
employees Other services Structures	457.3 28.0 99.8	480.1 26.8 106.2	465.6 27.9 99.0	472.1 27.5 97.1	477.7 26.6 104.5	483.0 26.9 109.4	487.6 26.3 113.6	492.9 27.0 107.0

Table 3.10.—National Defense Purchases

[Billions of dollars]

National defense purchases	313.8	303.4	315.7	304.8	307.6	301.9	299.2	292.8
Durable goods	79.0	70.6	78.9	74.4	75.3	67.4	65.1	62.2
Military equipment	73.2 22.7 14.3 12.1 3.8 6.6 13.6	66.3 20.9 12.1 10.7 3.0 6.3 13.3	72.6 21.9 14.2 11.6 3.9 7.1 14.0	70.5 20.8 13.5 11.1 4.2 6.6 14.2	70.5 22.5 12.9 11.3 3.2 6.8 13.9	63.1 20.1 11.6 10.0 2.3 6.4 12.6	60.9 20.1 10.4 10.1 2.1 5.6 12.5	58.2 19.3 10.4 9.1 2.2 5.5
Other durable goods	5.8	4.3	6.3	3.9	4.8	4.3	4.2	4.0
Nondurable goods	10.3	9.4	9.8	9.0	10.2	9.3	9.1	8.0
Petroleum products Ammunition Other nondurable goods	3.5 3.4 3.4	3.2 3.6 2.7	3.0 3.6 3.2	3.0 3.5 2.5	3.4 4.0 2.7	3.3 3.1 2.9	2.9 3.8 2.5	2.5 3.1 2.4
Services	218.9	218.1	221.0	216.4	217.0	219.4	219.8	217.5
Compensation of employees	135.7 90.7 45.0 83.2	137.0 91.0 46.0 81.2	133.7 89.2 44.5 87.3	137.2 91.5 45.7 79.1	136.4 91.2 45.2 80.6	137.9 90.7 47.2 81.5	136.3 90.5 45.8 83.5	138.1 91.6 46.5 79.4
development	26.5 23.4 10.0 13.3	26.6 23.2 9.1 12.8	27.5 24.3 10.0 13.4	27.2 22.1 9.1 11.6	26.6 21.9 9.6 12.2	25.5 24.9 9.1 13.3	27.1 24.0 8.6 14.1	24.5 24.5 8.1 14.2
material	5.8 6.2 –2.0	5.2 6.3 –2.1	6.1 7.2 –1.1	5.0 6.3 –2.2	5.3 6.4 –1.5	5.6 6.5 –3.3	5.0 6.0 –1.3	4.8 4.8 -1.3
Structures	5.6	5.3	6.0	5.0	5.0	5.8	5.2	5.2
Military facilities	3.5 2.1	3.2 2.1	3.8 2.2	3.0 2.0	3.0 2.1	3.6 2.2	3.0 2.2	3.0 2.2

<sup>1.</sup> Includes utilities, communications, rental payments, maintenance and repair, and payments to contractors to operate installations.
2. Includes depot maintenance and contractual services for weapons systems, other than research and

Table 3.8B.—Government Purchases by Type in Constant Dollars [Billions of 1987 dollars]

·								
			5	Seasonall	y adjuste	ed at ann	ual rates	3
	1992	1993	1992		19	93		1994
			IV	I	1	III	IV	I
Government purchases	945.2	938.9	946.9	931.3	941.1	941.7	941.7	926.8
Federal	373.0	354.9	373.7	357.6	359.4	353.7	349.0	338.0
National defense	<b>261.2</b>	242.4	<b>261.3</b>	246.0	246.4	240.1	237.1	228.4
	73.2	63.6	72.6	67.2	67.4	60.9	58.9	55.8
	9.4	8.7	8.6	8.3	9.2	8.7	8.5	7.6
	173.6	165.6	174.7	166.1	165.5	165.4	165.3	160.6
employees Military Civilian Other services Structures	100.9	95.8	99.0	97.7	96.4	95.3	93.8	93.1
	66.4	63.4	65.4	64.4	63.8	63.1	62.2	61.8
	34.5	32.4	33.7	33.3	32.7	32.2	31.6	31.3
	72.7	69.8	75.7	68.4	69.0	70.1	71.5	67.6
	5.0	4.5	5.3	4.4	4.4	5.0	4.4	4.3
Nondefense	<b>111.8</b>	<b>112.5</b>	<b>112.4</b>	111.5	113.0	<b>113.7</b>	111.8	<b>109.6</b>
	7.5	8.1	7.9	7.8	8.4	8.1	8.2	7.3
	7.9	6.5	8.4	7.2	6.9	6.4	5.4	5.6
inventory change Other nondurables Services Compensation of	4	3	0	2	2	3	3	2
	8.3	6.8	8.4	7.4	7.1	6.7	5.8	5.8
	87.4	88.6	87.2	87.3	88.9	89.8	88.4	87.4
employees Other services Structures	49.6	51.3	49.8	51.0	51.4	51.6	51.3	50.8
	37.8	37.3	37.4	36.3	37.4	38.2	37.2	36.7
	9.0	9.2	8.9	9.1	8.7	9.4	9.8	9.2
State and local	572.2	584.0	573.2	573.7	581.6	588.0	592.8	588.9
Durable goods  Nondurable goods  Services  Compensation of	33.3	34.1	33.6	33.8	34.0	34.3	34.5	34.7
	52.1	53.5	52.7	53.0	53.4	53.8	54.0	54.4
	395.8	402.6	398.2	400.1	401.9	403.4	405.0	406.4
employees	359.0	363.9	361.0	362.0	363.4	364.5	365.7	366.7
	36.7	38.7	37.3	38.1	38.4	38.9	39.3	39.7
	91.1	93.8	88.6	86.9	92.4	96.5	99.3	93.3

Table 3.11.—National Defense Purchases in Constant Dollars

National defense purchases	261.2	242.4	261.3	246.0	246.4	240.1	237.1	228.4
Durable goods	73.2	63.6	72.6	67.2	67.4	60.9	58.9	55.8
Military equipment	67.1	58.7	66.3	62.9	62.1	55.9	53.9	51.6
	20.2	17.5	19.0	17.7	18.8	16.6	16.7	15.7
	15.3	12.7	15.7	14.1	13.2	12.4	11.2	11.6
	10.3	8.9	9.8	9.3	9.5	8.3	8.4	7.5
	3.4	2.5	3.4	3.6	2.6	2.0	1.8	1.9
	6.1	5.8	6.5	6.0	6.2	5.9	5.1	5.0
	11.8	11.4	11.9	12.1	11.8	10.8	10.7	10.0
	6.1	4.9	6.4	4.4	5.3	5.0	5.0	4.2
Nondurable goods	9.4	8.7	8.6	8.3	9.2	8.7	8.5	7.6
Petroleum products	2.9	2.8	2.4	2.7	2.9	2.9	2.6	2.5
Ammunition	3.5	3.6	3.3	3.4	3.9	3.1	3.8	2.8
Other nondurable goods	3.0	2.4	2.9	2.2	2.4	2.7	2.2	2.2
Services	173.6	165.6	174.7	166.1	165.5	165.4	165.3	160.6
Compensation of employees	100.9	95.8	99.0	97.7	96.4	95.3	93.8	93.1
	66.4	63.4	65.4	64.4	63.8	63.1	62.2	61.8
	34.5	32.4	33.7	33.3	32.7	32.2	31.6	31.3
	72.7	69.8	75.7	68.4	69.0	70.1	71.5	67.6
development	23.6	23.4	24.1	23.8	23.4	22.4	24.2	21.7
	20.6	20.1	21.2	19.4	19.1	21.4	20.5	21.0
	8.4	7.4	8.2	7.4	7.8	7.4	6.9	6.4
	10.0	9.6	9.9	8.7	9.1	10.0	10.6	10.6
material	6.1	5.4	6.6	5.3	5.4	5.8	5.3	4.6
Travel of persons	5.6	5.4	6.4	5.4	5.5	5.6	5.1	4.1
Other	–1.6	–1.6	8	–1.6	–1.1	–2.5	–1.0	9
Structures	5.0	4.5	5.3	4.4	4.4	5.0	4.4	4.3
Military facilities	3.3	2.9	3.5	2.8	2.8	3.3	2.8	2.7
Other	1.7	1.6	1.8	1.6	1.6	1.7	1.7	1.6

<sup>1.</sup> Includes utilities, communications, rental payments, maintenance and repair, and payments to contractors to

development.

3. Includes compensation of foreign personnel, consulting, training, and education.

operate installations.

2. Includes depot maintenance and contractual services for weapons systems, other than research and development.

3. Includes compensation of foreign personnel, consulting, training, and education.

Table 4.1.—Foreign Transactions in the National Income and Product Accounts

			Se	asonally	adjust	easonally adjusted at annual rates				
	1992	1993	1992		19	93	·	1994		
			IV	1	11	III	I۷	ı		
Receipts from rest of the world	769.7	793.4	777.0	774.1	791.8	788.3	819.6			
Exports of goods and services  Merchandise <sup>1</sup> Durable  Nondurable  Services <sup>1</sup>	640.5 448.7 300.8 147.9 191.7			453.2 306.9 146.3	458.6 314.0 144.6	452.2		668.8 465.8 321.7 144.1 203.0		
Receipts of factor income 2	129.2	131.7	122.3	122.8	131.9	135.1	137.2			
Capital grants received by the United States (net)	0	0	0	0	0	0	0	0		
Payments to rest of the world .	769.7	793.4	777.0	774.1	791.8	788.3	819.6			
Imports of goods and services  Merchandise   Durable  Nondurable  Services   Imports from the services services from the	670.1 544.5 346.3 198.2 125.6	385.7 206.4	693.5 564.7 359.7 205.1 128.7	569.6 368.8 200.7	725.0 592.6 379.5 213.1 132.4		751.5 614.2 409.8 204.4 137.2	614.6 414.6 200.0		
Payments of factor income 3	121.9	131.6	124.8	122.4	132.3	128.7	142.8			
From persons (net) From government (net) From business	32.7 10.4 16.3 6.0	11.0 15.8		29.7 11.0 13.1 5.6	29.9 11.0 12.9 6.0	30.9 10.8 13.7 6.3	23.5	11.7		
Net foreign investment	-55.1	-96.2	-82.4	-77.6	-95.4	-96.4	-115.5			

<sup>1.</sup> Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Table 4.3.—Exports and Imports of Merchandise by End-Use Category
[Billions of dollars]

Exports of merchandise	448.7	461.5	462.0	453.2	458.6	452.2	482.0	465.8
Foods, feeds, and beverages	40.3	40.5	41.9	40.8	39.6	38.9	42.6	39.4
Industrial supplies and materials	105.2	103.2	104.9	103.0	103.0	102.4	104.3	100.9
Durable goods	36.9	37.6	37.2	37.2	37.6	38.1	37.6	36.9
Nondurable goods	68.4	65.5	67.7	65.8	65.4	64.2	66.7	64.1
Capital goods, except automotive	176.9	183.4	182.0	177.8	183.3	178.5	193.8	188.4
Civilian aircraft, engines, and parts	37.7	32.8	37.1	33.1	36.4	27.1	34.5	33.5
Computers, peripherals, and parts	28.8	29.3	30.0	28.8	28.0	29.6	30.7	31.2
Other	110.4	121.3	114.9	115.9	118.8	121.9	128.6	123.7
Automotive vehicles, engines, and parts	47.1	51.6	50.9	51.2	51.3	48.4	55.6	54.1
Consumer goods, except automotive	50.4	53.6	53.3	51.5	52.2	54.2	56.6	54.0
Durable goods	25.6	27.4	26.5	26.3	27.2	27.5	28.7	27.9
Nondurable goods	24.8	26.2	26.8	25.2	25.1	26.7	27.9	26.2
Other	28.9	29.3	28.9	28.8	29.3	29.9	29.1	28.9
Durable goods	14.5	14.6	14.5	14.4	14.6	14.9	14.6	14.5
Nondurable goods	14.5	14.6	14.5	14.4	14.6	14.9	14.6	14.5
Imports of merchandise	544.5	592.1	564.7	569.6	592.6	591.9	614.2	614.0
Foods, feeds, and beveragesIndustrial supplies and materials, except	27.9	28.1	27.6	27.4	27.5	28.3	29.0	28.8
petroleum and products	82.3	89.1	84.2	86.4	87.3	89.0	93.6	97.0
Durable goods	39.5	43.6	40.3	41.7	41.1	43.3	48.2	48.7
Nondurable goods	42.8	45.5	43.9	44.8	46.2	45.7	45.3	48.2
Petroleum and products	51.6	51.5	54.9	51.0	57.3	50.2	47.5	40.9
Capital goods, except automotive	134.2	152.3	141.8	142.6	150.7	152.6	163.1	168.7
Civilian aircraft, engines, and parts	12.6	11.3	13.0	10.5	11.8	10.5	12.4	10.3
Computers, peripherals, and parts	31.8	38.2	34.6	35.9	37.2	39.0	40.5	41.7
Other	89.8	102.8	94.2	96.2	101.7	103.1	110.2	116.
Automotive vehicles, engines, and parts	91.8	102.4	95.1	100.5	102.1	100.1	106.9	105.9
Consumer goods, except automotive	123.0	134.3	126.5	128.9	132.9	137.6	137.7	137.3
Durable goods	63.9	70.2	65.2	67.7	68.2	71.5	73.3	73.2
Nondurable goods	59.1	64.1	61.3	61.2	64.7	66.2	64.4	64.1
Other	33.8	34.5	34.8	32.7	34.8	33.9	36.6	36.0
Durable goods	16.9	17.3	17.4	16.4	17.4	17.0	18.3	18.0
Nondurable goods	16.9	17.3	17.4	16.4	17.4	17.0	18.3	18.0
Addenda:								
Exports of agricultural products 1	44.0	43.6	45.5	43.4	43.1	42.4	45.4	43.0
Exports of nonagricultural products	404.7	418.0	416.4	409.9	415.5	409.8	436.6	422.9

<sup>1.</sup> Includes parts of: exports of foods, feeds, and beverages, of nondurable industrial supplies and materials, and of nondurable consumer goods, except automotive.

Table 4.2.—Exports and Imports of Goods and Services and Receipts and Payments of Factor Income in Constant Dollars

[Billions of 1987 dollars]

			Sea	asonally	adjuste	ed at an	nual ra	tes
	1992	1993	1992		19	93		1994
			IV	1	11	593.2 591.9 620.0 134.5 434.1 463.0 302.4 302.2 324.9 132.1 131.9 138.1 158.6 157.8 157.0 105.0 107.1 108.5 166.4 678.2 704.5 166.7 574.9 598.9 172.1 381.0 404.5 193.6 193.9 194.4 102.7 103.3 105.6		
Exports of goods and services	<b>578.0</b> 422.7 288.0 134.7 155.4	<b>598.3</b> 440.5 306.5 134.0 157.8	437.3 300.0	430.2 296.5 133.7	<b>593.2</b> 434.5 302.4 132.1 158.6	434.1 302.2 131.9	463.0 324.9 138.1	446.7 318.0 128.8
Receipts of factor income 2	105.5	104.7	98.9	98.3	105.0	107.1	108.5	
Imports of goods and services  Merchandise   Durable  Nondurable  Services   Imports of goods and services   Nondurable	611.6 511.9 332.5 179.4 99.7	<b>674.8</b> 571.4 379.5 191.8 103.4	530.3	545.9	668.4 565.7 372.1 193.6 102.7	574.9 381.0 193.9	598.9 404.5 194.4	604.0 410.6 193.4
Payments of factor income <sup>3</sup>	97.7	102.2	98.8	95.8	103.0	99.6	110.4	

<sup>1.</sup> Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Table 4.4.—Exports and Imports of Merchandise by End-Use Category in Constant Dollars

Exports of merchandise	422.7	440.5	437.3	430.2	434.5	434.1	463.0	446.7
Foods, feeds, and beverages	35.7	35.4	37.7	36.4	35.2	33.7	36.4	32.4
Industrial supplies and materials	97.5	95.1	96.6	94.7	94.0	94.3	97.4	92.3
Durable goods	32.1	31.1	31.9	31.1	30.6	31.4	31.2	29.9
Nondurable goods	65.4	64.0	64.7	63.6	63.4	63.0	66.2	62.4
Capital goods, except automotive	178.4	192.7	186.8	184.3	189.5	190.5	206.5	203.5
Civilian aircraft, engines, and parts	30.9	26.1	30.0	26.6	29.0	21.6	27.2	26.3
Computers, peripherals, and parts	51.0	60.8	56.4	55.9	57.0	62.5	67.6	69.7
Other	96.6	105.8	100.5	101.8	103.4	106.3	111.7	107.5
Automotive vehicles, engines, and parts	41.9	45.6	45.1	45.3	45.3	42.8	49.1	47.5
Consumer goods, except automotive	43.5	45.9	45.5	44.1	44.9	46.5	48.2	46.0
Durable goods	22.7	24.3	23.4	23.2	24.1	24.4	25.4	24.6
Nondurable goods	20.8	21.7		21.0	20.8	22.1	22.8	21.4
Other	25.6	25.7	25.5	25.4	25.7	26.3	25.5	25.1
Durable goods	12.8	12.9	12.8	12.7	12.8	13.1	12.8	12.5
Nondurable goods	12.8	12.9	12.8	12.7	12.8	13.1	12.8	12.5
Imports of merchandise	511.9	571.4	530.3	545.9	565.7	574.9	598.9	604.0
Foods, feeds, and beverages	26.0	25.8	25.6	26.1	25.6	25.7	25.8	25.6
petroleum and products	72.0	78.0	73.3	75.3	76.0	78.8	81.9	83.9
Durable goods	34.1	37.2	34.8	35.3	34.9	37.6	41.1	40.6
Nondurable goods	37.9	40.8		40.0	41.1	41.1	40.8	43.3
Petroleum and products	51.2	56.5		53.4	57.8	56.7	58.1	55.2
Capital goods, except automotive	148.4	179.3	160.0	165.3	175.8	181.4	194.5	202.6
Civilian aircraft, engines, and parts	10.3	9.0	10.5	8.5	9.4	8.4	9.8	8.1
Computers, peripherals, and parts	59.7	82.5		73.1	79.0		92.0	96.4
Other	78.3	87.8		83.8	87.4	87.2	92.7	98.2
Automotive vehicles, engines, and parts	79.7	87.4		87.0	87.4	85.3	89.8	88.5
Consumer goods, except automotive	105.2	114.7	106.7	110.2	113.0	117.8	117.6	117.5
Durable goods	55.6	60.8		58.6	58.9	62.0		63.5
Nondurable goods	49.6	53.9	50.5	51.6	54.1	55.8		54.0
Other	29.5	29.7	30.1	28.5	30.0	29.3		30.7
Durable goods	14.7	14.9	15.0	14.2	15.0			15.3
Nondurable goods	14.7	14.9	15.0	14.2	15.0	14.6	15.6	15.3
Addenda:								
Exports of agricultural products 1	39.7	38.5		38.7	38.8			35.4
Exports of nonagricultural products Imports of nonpetroleum products	382.9 460.8	402.0 514.8		391.5 492.5			423.9 540.7	411.3 548.8

<sup>1.</sup> Includes parts of: exports of foods, feeds, and beverages, of nondurable industrial supplies and materials, and of nondurable consumer goods, except automotive.

Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

<sup>2.</sup> Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations.

Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

Table 5.1.—Gross Saving and Investment

			8	Seasonall	y adjuste	ed at ann	nual rates	3
	1992	1993	1992		19	93		1994
			IV	1	IJ	III	IV	ı
Gross saving	717.8	780.2	718.8	762.0	766.7	774.3	817.8	
Gross private saving Personal saving Undistributed corporate profits with inventory valuation and capital	<b>986.9</b> 238.7	<b>1,004.8</b> 189.9	<b>969.4</b> 279.7	<b>1,024.8</b> 177.9	<b>988.3</b> 208.7	<b>988.7</b> 179.7	<b>1,017.5</b> 193.4	182.0
consumption adjustments Undistributed profits Inventory valuation	110.4 98.6	123.6 106.4	121.7 92.0	103.7 91.4	116.3 103.9	129.3 104.6	145.1 125.6	************
adjustment	-5.3	-7.1	4.9	-12.7	-12.2	1.0	-4.3	-17.7
adjustment	17.1	24.3	24.7	25.1	24.7	23.8	23.9	20.6
fixed capital  Noncorporate consumption	396.6	408.8	396.5	402.2	405.2	414.0	413.9	432.8
of fixed capital	261.3	262.5	251.5	261.0	258.1	265.7	265.1	301.7
disbursements	-20.0	20.0	-80.0	80.0	0	0	0	0
Government surplus or deficit (-), national income and product accounts Federal State and local	- <b>269.1</b> 276.3 7.2	- <b>224.6</b> 226.4 1.8	- <b>250.6</b> -264.2 13.5			- <b>214.4</b> -212.7 -1.7		
Capital grants received by the United States (net)	0	0	0	0	0	0	0	0
Gross investment	741.4	795.4	750.9	796.5	778.7	787.6		
Gross private domestic investment	796.5 55.1	891.7 -96.2	833.3 -82.4	874.1 -77.6	874.1 -95.4	884.0 96.4	-115.5	978.0
Statistical discrepancy	23.6	15.2	32.1	34.4	12.0	13.3	1.2	

Table 5.4.—Fixed Investment by Type

[Billions of dollars]

			Sea	asonally	adjuste	ed at an	inual ra	tes
	1992	1993	1992		19	93		1994
			IV	1	II	IN	١٧	ı
Fixed investment	789.1	876.1	821.3	839.5	861.0	876.3	927.6	943.8
Nonresidential	565.5	623.7	579.5	594.7	619.1	624.9	656.0	664.7
Structures	172.6	178.7	171.1	172.4	177.6	179.1	185.8	178.9
farmUtilities	114.6 35.8	119.4 36.5	111.9 36.9	114.8 35.1	117.1 36.6	119.6 36.6	125.9 37.8	122.5 35.4
wellsOther structures	12.4 9.8	13.7 9.2	12.6 9.7	12.8 9.7	14.0 9.8	14.4 8.6	13.5 8.6	
Producers' durable equipment Information processing and related	392.9	445.0	408.3	422.2	441.6	445.8	470.2	485.8
equipment	135.5	151.9	139.7	142.7	147.0	154.6	163.4	168.1
equipment 1	39.8		40.7	45.8	46.1	49.5		52.3
OtherIndustrial equipment Transportation and related	95.7 87.2		98.9 91.2		100.9 95.9	105.1 98.7		
equipment Other	90.7 79.5	105.4 89.9	96.1 81.3	101.3 85.8	110.1 88.5	101.9 90.6		
Residential	223.6	252.4	241.8	244.9	241.9	251.3	271.6	279.1
Structures Single family Multifamily Other structures	216.3 116.5 13.1 86.7	244.6 133.8 10.8 100.1	234.3 124.3 11.7 98.3	132.4 10.3		131.1 11.4	144.0 11.1	10.9
Producers' durable equipment	7.3	7.8	7.5	7.5	7.6	7.9	8.1	8.0

<sup>1.</sup> Includes new computers and peripheral equipment only.

Table 5.5.—Fixed Investment by Type in Constant Dollars
[Billions of 1987 dollars]

			Sea	sonally	adjuste	ed at an	nual rat	ies
	1992	1993	1992		19	93		1994
			IV	1	II	iii	١V	1
Fixed investment	726.4	806.0	754.3	773.7	790.6	806.9	852.9	866.2
Nonresidential	529.2	591.8	543.7	562.3	584.3	594.8	625.7	634.1
Structures	150.6	151.5	148.0	148.2	151.1	151.2	155.6	148.9
farmUtilities	100.8 30.9	101.8 30.6	97.5 31.6	99.3 29.9	100.5 30.6	101.5 30.5	106.0 31.2	102.6 29.0
wellsOther structures	10.0 8.9	11.1 8.1	10.3 8.6	10.4 8.6	11.4 8.7	11.7 7.5	10.9 7.5	10.6 6.8
Producers' durable equipment	378.6	440.2	395.7	414.1	433.2	443.6	470.0	485.1
Information processing and related equipment	159.9	195.2	168.5	178.6	186.8	200.9	214.6	222.4
equipment <sup>1</sup> Other Industrial equipment	71.2 88.7 72.7	100.4 94.8 80.2	77.2 91.3 75.7	89.5 89.0 76.7	94.5 92.3 78.8	105.1 95.9 80.5	112.4 102.2 84.7	117.2 105.2 87.9
Transportation and related equipment Other	77.7 68.3	88.8 76.1	82.1 69.4	85.7 73.2	92.8 74.9	85.7 76.5	91.0 79.7	94.1 80.7
Residential	197.1	214.2	210.6	211.4	206.2	212.1	227.2	232.2
Structures Single family Multifamily Other structures	190.1 102.7 11.8 75.6	<b>206.8</b> 113.1 9.3 84.4	107.9 10.4	<b>204.1</b> 113.9 9.1 81.1	198.9 108.7 9.0 81.2	110.0 9.8		224.6 125.6 9.3 89.7
Producers' durable equipment	7.0	7.4	7.2	7.3	7.3	7.5	7.7	7.6

<sup>1.</sup> Includes new computers and peripheral equipment only.

Table 5.10.—Change in Business Inventories by Industry

			Sea	asonally	adjust	ed at ar	nual ra	ates	
	1992	1993	1992		19	93		1994	
			I۷	1	11	Ш	IV	ı	
Change in business inventories	7.3	15.6	12.0	34.6	13.1	7.7	6.9	34.2	
Farm	5.0	-5.5	2.4	1.5	-3.7	-14.9	-5.0	.5	
Nonfarm	2.3 8.8 –6.4	31.2	9.5 3.3 6.2	33.0 51.7 18.7	16.8 34.8 ~18.0		12.0 16.2 -4.3	57.4	
Manufacturing Durable goods Nondurable goods	-6.0 -10.6 4.6		14.2 17.0 2.8	-1.8 -5.5 3.7	4.2 .4 3.9	2.9 2.6 .2	-8.7 -4.3 -4.4	7.2 5.3 1.8	
Wholesale trade Durable goods Nondurable goods	6.1 3.9 2.2	4.2 1.3 2.8	13.5 3.8 9.7	.7 -3.2 3.9	6.8 .6 6.3	7.7 7.0 .7	1.4 1.0 .4	4.6 7.2 –2.6	
Merchant wholesalers	6.3 4.4 1.8 2 5	3.9 1.0 2.9 .2 .3 1	15.0 5.5 9.5 -1.5 -1.7	3 -3.7 3.5 .9 .5	6.1 1.8 4.2 .8 –1.3 2.0	-2.2	0 2 .2 1.4 1.2	2.3 5.4 -3.1 2.3 1.8 .5	
Retail trade	6.5 4.8 7 5.5 1.6	12.2 8.7 3.2 5.5 3.5	10.5 6.5 -1.9 8.4 4.0	27.6 21.9 19.0 2.9 5.8	3.0 .4 6 1.0 2.6	5.3 4 -8.4 8.0 5.7	12.8 12.9 2.9 10.0 1	13.8 12.3 7.5 4.8 1.6	
Other  Durable goods  Nondurable goods	-4.3 3.8 -8.1	5.6 2.6 3.0	2 5.5 -5.8	6.5 1.9 4.6	2.8 1.4 1.4	6.7 5.6 1.1	6.5 1.4 5.1	8.1 5.3 2.8	

Table 5.12.—Inventories and Final Sales of Domestic Business by Industry

[Billions of dollars]

	,	Seasonal	ly adjust	ed quarte	erly totals	
	1992		19	93		1994
	IV	ı	ŧI	III	IV	1
Inventories 1	1,099.0	1,119.5	1,119.6	1,130.9	1,134.8	1,149.9
Farm	95.1	99.1	95.4	95.1	92.7	95.6
Nonfarm	1,003.9 580.9 423.0		1,024.2 592.1 432.2	1,035.8 600.3 435.5	1,042.1 607.5 434.6	1,054.3 618.0 436.3
Manufacturing	400.9 251.0 149.9		402.4 250.7 151.7	407.0 254.2 152.8	405.0 253.8 151.2	407.7 256.6 151.1
Wholesale trade Durable goods Nondurable goods	247.9 155.4 92.5	249.6 155.9 93.7	251.3 156.6 94.7	159.1	256.7 160.3 96.4	258.9 163.1 95.8
Merchant wholesalers Durable goods Nondurable goods Nonmerchant wholesalers Durable goods Nondurable goods	221.4 139.4 82.0 26.5 16.0 10.4	222.6 139.5 83.1 27.0 16.4 10.6	224.1 140.5 83.7 27.2 16.1 11.1	227.6 142.5 85.0 27.0 16.6 10.4	229.4 143.3 86.0 27.3 17.0 10.4	230.6 145.3 85.3 28.3 17.8 10.5
Retail trade Durable goods Automotive Other Nondurable goods	269.5 129.4 62.5 67.0 140.1	280.1 137.0 68.2 68.7 143.1	281.2 138.0 69.3 68.7 143.3	282.7 138.2 66.9 71.3 144.5	286.6 143.0 68.5 74.5 143.6	291.4 146.4 70.7 75.8 145.0
Other	85.6	88.7	89.3	91.5	93.8	96.3
Final sales of domestic business 2 Final sales of goods and structures of domestic business 2	436.9 240.5	439.0 240.4	445.5 243.9	450.7 245.9	461.1 253.8	464.5 254.9
Ratio of inventories to final sales of domestic business	_ 10.0		24010		23010	231.6
Inventories to final sales	2.52 2.30	2.55 2.32	2.51 2.30	2.51 2.30	2.46 2.26	2.48 2.27
structures	4.17	4.24	4.20	4.21	4.11	4.14

Table 5.11.—Change in Business Inventories by Industry in Constant **Dollars** 

[Billions of 1987 dollars]

			Sea	asonally	adjuste	ed at an	inual ra	nual rates	
	1992	1993	1992		19	93		1994	
			I۷	_	Ħ	III	IV	-	
Change in business inventories	6.5	14.3	8.7	29.3	13.0	6.5	8.5	30.	
Farm	3.8	-5.3	1.2	0	-4.1	-12.9	-4.4	:	
Nonfarm	2.7	19.7	7.5	29.3	17.1	19.4	12.9	30.	
Manufacturing Durable goods Nondurable goods	-4.7 -8.9 4.2	.5 –.5 1.0	-12.5 -15.1 2.6	−.8 −4.6 3.8	5.0 1.4 3.6	3.1 2.8 .3	-5.3 -1.7 -3.6	7. 5. 2.	
Wholesale trade Durable goods Nondurable goods	5.4 3.6 1.8	3.7 1.3 2.4	10.7 3.4 7.3	.7 -2.8 3.6	6.6 .6 6.1	6.4 6.3 .1	1.2 1.1 0	4. 6. –1.	
Merchant wholesalers	5.6 4.0 1.6 2 4 .3	3.5 .9 2.5 .3 .4 1	5.0 7.7 –2.1 –1.6	1 -3.3 3.2 .8 .4 .4	5.9 1.7 4.2 .7 -1.2 1.8	8.5 5.6 2.9 2.1 .8 2.8	4 3 1 1.6 1.4	2. 4. –2. 2. 1.	
Retail trade  Durable goods  Automotive  Other  Nondurable goods	5.9 4.3 6 4.9 1.6	10.7 7.6 2.9 4.8 3.1	9.7	24.0 18.9 16.6 2.3 5.1	3.0 .8 5 1.2 2.3	4.8 1 -7.1 7.0 4.9	11.1 11.0 2.4 8.6 .1	11. 10. 6. 4. 1.	
Other  Durable goods  Nondurable goods	-3.9 3.4 -7.3	4.7 2.2 2.5	4 4.9 -5.3	5.4 1.6 3.8	2.4 1.2 1.2	5.0 4.8 .2	5.9 1.2 4.7	6. 4. 2.	

Table 5.13.—Inventories and Final Sales of Domestic Business by Industry in Constant Dollars

		Seasonail	ly adjuste	ed quarte	rly totals	
	1992		19	93		1994
	IV	1	- 11	HI	IV	1
Inventories 1	985.3	992.6	995.9	997.5	999.6	1,007.2
Farm	88.1	88.1	87.1	83.9	82.8	82.7
Nonfarm	897.2 525.3 371.8	904.5 528.6 375.9	908.8 529.6 379.2	913.6 533.0 380.6	916.8 535.9 380.9	924.5 542.7 381.8
Manufacturing	365.9 231.9 134.0	365.7 230.7 135.0	366.9 231.1 135.8	367.7 231.8 135.9	366.4 231.4 135.0	368.4 232.8 135.6
Wholesale trade Durable goods Nondurable goods	217.7 138.5 79.2	217.9 137.8 80.1	219.6 138.0 81.6	221.2 139.5 81.6	221.5 139.8 81.7	222.7 141.5 81.2
Merchant wholesalers Durable goods Nondurable goods Nonmerchant wholesalers Durable goods Nondurable goods	193.8 124.0 69.8 23.9 14.6 9.4	193.8 123.1 70.6 24.2 14.7 9.5	195.3 123.6 71.7 24.3 14.4 9.9	197.4 125.0 72.4 23.8 14.6 9.2	197.3 124.9 72.4 24.2 14.9 9.3	197.9 126.1 71.8 24.7 15.4 9.4
Retail trade	236.4 115.2 56.5 58.7 121.2	242.4 119.9 60.6 59.3 122.5	243.2 120.1 60.5 59.6 123.0	244.4 120.1 58.7 61.4 124.2	247.1 122.9 59.4 63.5 124.3	250.0 125.4 60.9 64.5 124.6
Other	77.1	78.5	79.1	80.3	81.8	83.5
Final sales of domestic business 2 Final sales of goods and structures of domestic business 2	361.5 208.6	360.4 207.0	363.4 209.3	366.8 211.3	373.9 217.6	374.7 217.6
Ratio of inventories to final sales of domestic business						
Inventories to final sales	2.73 2.48 4.30	2.75 2.51 4.37	2.74 2.50 4.34	2.72 2.49 4.32	2.67 2.45 4.21	2.69 2.47 4.25
1 Investories are as of the end of the quarter Or						

<sup>1.</sup> Inventories are as of the end of the quarter. Quarter-to-quarter changes calculated from this table are at quarterly rates, whereas the constant-dollar change in business inventories component of GDP is stated at annual

I. Inventories are as of the end of the quarter.
 Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and general government and includes a small amount of final sales by farm.

rates.

2. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and general government and includes a small amount of final sales by farm.

Table 6.1C.—National Income Without Capital Consumption Adjustment by Industry

			5	Seasonall	y adjuste	d at ann	ual rates	
	1992	1993	1992		19	93		1994
			IV	- 1	11	III	IV	ı
National income without capital consumption adjustment	4,880.3	5,172.7	5,003.2	5,071.1	5,133.6	5,177.6	5,308.6	
Domestic industries	4,873.0	5,172.5	5,005.7	5,070.7	5,134.1	5,171.2	5,314.2	
Private industries	4,138.5	4,407.2	4,262.0	4,313.3	4,372.8	4,401.9	4,540.7	
Agriculture, forestry, and fisheries	100.9 38.5 212.8 895.3 501.7 393.6	105.3 40.1 228.0 928.2 522.6 405.6	104.3 40.1 218.1 919.0 518.8 400.2	112.5 40.2 219.3 909.6 507.6 401.9	106.7 39.3 224.7 925.8 518.0 407.7	84.2 39.6 231.6 922.5 520.8 401.8	954.8 543.9	
Transportation and public utilities	356.1 151.0 103.7	376.1 161.8 107.4	361.4 154.4 106.4 100.6	369.0 157.4 105.4	370.7 158.9 108.2	378.4 164.4 108.5	386.1 166.7 107.3	
Wholesale trade	283.6 416.7 748.9 1,085.8	444.9 816.0	428.7 768.3	432.2 801.2	441.1 805.9	449.1	457.3 838.8	
Government	734.5	765.3	743.8	757.4	761.3	769.2	773.5	
Rest of the world	7.3	.2	-2.5	.4	5	6.4	-5.6	

Table 6.16C.—Corporate Profits by Industry

[Billions of dollars]

			Sea	sonally	adjuste	ed at an	nual ra	tes
	1992	1993	1992		19	93		1994
			١٧	1	11	U)	١٧	ì
Corporate profits with inventory valuation and capital consumption adjustments	407.2	466.6	439.5	432.1	458.1	468.5	507.9	
Domestic industries	344.9	407.9	384.8	373.0	400.0	405.8	452.8	
FinancialNonfinancial	66.7 278.3	87.4 320.5	70.7 314.1	81.0 292.1	85.0 315.0	87.6 318.2	96.1 356.7	
Receipts from the rest of the world Less: Payments to the rest of the	<b>62.3</b> 65.2	<b>58.7</b> 71.3	<b>54.7</b> 60.5	<b>59.0</b> 66.7	<b>58.1</b> 71.4	<b>62.7</b> 74.0	<b>55.1</b> 73.2	
world	3.0	12.6	5.8	7.7	13.3	11.3	18.1	
Corporate profits with inventory valuation adjustment	390.1	442.3	414.8	407.0	433.4	444.8	484.0	
Pomestic industries Financial Federal Reserve banks Other Nonfinancial Manufacturing Durable goods Primary metal industries Fabricated metal products Industrial machinery and equipment Electronic and other electric equipment Motor vehicles and equipment Other Nondurable goods Food and kindred products Chemicals and allied	327.8 78.1 17.8 60.3 249.8 115.5 48.3 .6 7.4 6.6 12.1 3.5 18.1 67.2 17.0	131.7 60.2 1.4 6.5 7.2 14.6 9.0 21.4 71.6 15.1	0 6.6 7.8 17.6 4.9 21.0 70.0 15.2	19.4 70.9 18.0	14.8	282.8 126.7 59.9 1.1 6.3 8.8 14.4 8.1 21.3 66.8 14.6	108.1 16.2 91.9 320.8 148.9 74.4 2.6 7.6 8.0 17.2 15.0 24.1 74.5 13.0	
products Peteroleum and coal products Other Transportation and public utilities Wholesale and retail trade Other Rest of the world	15.7 6.1 28.5 52.0 46.3 36.0 <b>62.3</b>	27.7 57.8 54.4 40.6	32.1 50.4 57.7 42.0	27.3 53.3 46.0 37.5	55.4 37.2	12.0 25.6 59.0 55.1 42.1	14.9 28.6 64.9 61.4 45.8	

Table 7.1.—Fixed-Weighted and Alternative Quantity and Price Indexes for Gross Domestic Product

								, numbe	is, 1907±100]	1		1					
				Se	asonall	adjust	ed						Se	asonall	y adjust	ed	
	1992	1993	1992		19	93		1994		1992	1993	1992		19	93		1994
			IV	1	II	III	1V	1				١٧	1	- 11	IXI	IV	1
Gross domestic product: Current dollars	133.0	140.5	136.4	137.9	139.4	140.9	143.8	145.6	Nonresidential: Current dollars	113.6	125.3	116.4	119.5	124.4	125.5	131.8	133.5
Fixed 1987 weights	109.8 109.5 109.4	113.1 112.5 112.3	111.3		112.4 111.9 111.7	112.5	115.1 114.2 114.0		Fixed 1987 weights Chain-type annual weights Benchmark-years weights	106.3 103.3 104.1	113.3	109.2 105.7 106.7	108.4	117.4 112.4 113.5	113.4	125.7 119.0 120.1	127.4
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Implicit price deflator	122.1 121.5 121.7 121.1			123.8 124.1	125.6 124.7 124.9 124.0	125.3 125.6	126.0 126.3		Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	111.4 109.9 109.1	111.0	112.0 110.1 109.4		113.1 110.9 110.1	111.2		114.5
Personal consumption expenditures: Current dollars	135.6	143.9	139.4	140.8	142.8	144.8	147.2	149.1	Implicit price deflator  Structures:	106.9		106.6	105.7			104.8	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights	109.5 109.0 109.1	113.1 112.3 112.4				112.8	113.9		Current dollars Quantity indexes: Fixed 1987 weights	87.9	88.5	99.9 86.4	100.6 86.5	88.2	88.3	90.8	86.9
Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights		128.7 128.0 128.1	125.9	126.8 127.0	128.4 127.7 127.9	128.2	129.1 129.2		Chain-type annual weights Benchmark-years weights . Price indexes: Fixed 1987 weights	87.9 87.9 114.6	88.5	86.4 86.4 115.6	86.5 86.5 116.3	88.3 88.3	88.3 88.4 118.4	90.9 90.9 119.3	
Implicit price deflator  Durable goods:  Current dollars	123.9 123.2		125.3 128.0	126.2 127.6	127.0	127.4	128.1 139.4	128.5	Chain-type annual weights Benchmark-years weights Implicit price deflator	114.6 114.6	117.9	115.6 115.6	116.3 116.3	117.4 117.4	118.4	119.3 119.3	
Quantity indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes:	113.1 111.6 111.8		115.5	114.8	117.7	119.5	126.6 123.6 123.8		Producers' durable equipment: Current dollars	120.3	136.3	125.1	129.3	135.3	136.6	144.0	148.8
Fixed 1987 weights	110.4 110.2	113.8 112.2 112.1 109.8	110.8 110.7		113.5 112.0 111.9 109.8	112.5 112.4	113.1		Fixed 1987 weights Chain-type annual weights Benchmark-years weights .	116.0 111.8 112.8	127.0	116.4	126.9 120.4 121.7	132.7 125.8 127.1	135.9 127.2 128.6	144.0 134.5 136.0	
Nondurable goods: Current dollarsQuantity indexes:	128.7 105.1	133.5 107.6	131.7	132.1	133.0 107.1			136.1	Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights .	109.7 107.6 106.7	107.7 106.9	107.5 106.7	110.4 107.6 106.8	107.8 107.0	107.9 107.1	107.7 106.9	
Fixed 1987 weights	104.9 104.9	107.2 107.2	106.7 106.7	106.1 106.1	106.8 106.8	107.7 107.7	108.4 108.4	••••••	Implicit price deflator  Residential:  Current dollars	99.3		103.2	102.0	101.9		100.0	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Implicit price deflator	123.0 122.7 122.7 122.4	124.9 124.5 124.6 124.1	123.5	124.5 124.5	125.0 124.6 124.7 124.2	124.3	124.8 124.8	125.2  124.3	Quantity indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	87.5 87.5 87.5	95.1	93.5 93.5 93.5	93.8 93.8 93.9		94.1	100.9 100.9	
Services: Current dollarsQuantity indexes:	143.0			149.4	151.7				Price indexes: Fixed 1987 weights Chain-type annual weights	113.4		114.8	115.8	117.2		119.5	120.1
Fixed 1987 weights	111.0 111.0	114.0	112.0 112.1	112.8 112.9	113.4 113.5	114.4 114.5	115.2 115.2		Benchmark-years weights Implicit price deflator Exports of goods and services:	113.4 113.4	117.7 117.8	114.8	115.8	117.2 117.3		119.4 119.5	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Implicit price deflator	129.5 128.9 129.1 128.5	133.9 134.2	130.9 131.2	132.8 132.1 132.4 131.8	133.5 133.8	134.5 134.7	135.6 135.9		Current dellare		181.8 164.4				179.5 162.6		183.8 166.2
Gross private domestic investment: Current dollars Quantity indexes:	106.3			116.7				130.5	Chain-type annual weights Benchmark-years weights Price indexes:	156.8	160.0 161.0	160.0	157.9 158.9	160.2	158.8	166.0	
Fixed 1987 weights	97.8 96.2 96.5	109.5 105.9 106.4	99.9	107.2 104.4 104.9	107.2 104.1 104.6	104.6	115.0 110.6 111.2	119.7	Fixed 1987 weights	112.9 112.3	115.4 113.9 113.4 110.6	113.2 112.6	113.4 112.9	114.1 113.5	115.7 114.1 113.5 110.4	114.2 113.6	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Implicit price deflator									Imports of goods and services: Current dollars	132.2	143.0	136.8	138.0	143.0	143.0	148.2	148.1
Fixed investment: Current dollarsQuantity indexes:	109.1	121.2	113.6	116.1	119.1	121.2	128.3	130.5	Fixed 1987 weights Chain-type annual weights Benchmark-years weights	120.6 116.6 117.7		124.3 119.5 120.9	122.3	125.8	133.8 127.0 128.4	131.6	139.9
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes:	100.5 98.4 98.9		101.9 102.6	103.8 104.5	105.9 106.6	107.3 108.1	113.3 114.1		Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	113.4 112.3	112.8 111.7	114.1 113.0	112.5 111.5	113.4 112.4	114.8 112.5 111.5	112.6 111.5	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Implicit price deflator	110.3	112.3	110.9	111.4	112.1	112.7	113.1	116.2	Implicit price deflator	109.6	107.5	110.0	108.0	108.5	106.9	106.7	105.9

Table 7.1.—Fixed-Weighted and Alternative Quantity and Price Indexes for Gross Domestic Product—Continued

Quantity indexes:     107.2     106.5     107.4     105.6     106.8     106.8       Fixed 1987 weights     107.0     106.4     107.2     105.6     106.8     106.8       Chain-type annual weights     106.9     106.2     107.1     105.6     106.6     106.6       Price indexes:       Fixed 1987 weights     120.6     124.3     121.7     123.2     124.0     124.8	106.5 125.1	1994     132.1   105.1
Government purchases:         128.4         131.4         129.8         129.3         131.4         132.1           Quantity indexes:         Fixed 1997 weights         107.2         106.5         107.4         105.6         106.8         106.8           Chain-type annual weights         107.0         106.4         107.2         105.6         106.6         106.6           Benchmark-years weights         106.9         106.2         107.1         105.4         106.5         106.5           Price indexes:         Fixed 1987 weights         120.6         124.3         121.7         123.2         124.0         124.8	132.6 106.8 106.6 106.5 125.1	132. 105.
Current dollars     128.4     131.4     129.8     129.3     131.4     132.1       Quantity indexes:     Fixed 1987 weights     107.2     106.5     107.4     105.6     106.8     106.8       Chain-type annual weights     107.0     106.4     107.2     105.6     106.6     106.6     106.6       Benchmark-years weights     106.9     106.2     107.1     105.4     106.5     106.5       Price indexes:     Fixed 1987 weights     120.6     124.3     121.7     123.2     124.0     124.8	106.8 106.6 106.5 125.1	105.1
Quantity indexes:     107.2     106.5     107.4     105.6     106.8     106.8       Fixed 1987 weights     107.0     106.4     107.2     105.6     106.6     106.6     106.6       Benchmark-years weights     106.9     106.2     107.1     105.4     106.5     106.5       Price indexes:     106.9     106.2     107.1     105.4     106.5     106.5       Fixed 1987 weights     120.6     124.3     121.7     123.2     124.0     124.8	106.8 106.6 106.5 125.1	105.1
Fixed 1987 weights	106.6 106.5 125.1	
Chain-type annual weights	106.6 106.5 125.1	
Benchmark-years weights	106.5 125.1	
Price indexes: 120.6 124.3 121.7 123.2 124.0 124.8	125.1	
Fixed 1987 weights		
Chain-type annual weights   190 ft   193 ft   191 ft   199 ft   199 ft   199 ft		
	124.4	
	124.6	
Implicit price deflator	124.1	125.6
Federal:		
	114.3	112.8
Quantity indexes:	00.7	٠,,
Fixed 1987 weights	90.7 90.8	
Benchmark-years weights 96.3 92.0 96.5 92.7 93.2 91.6		
Price indexes:	50.5	
	127.0	128.
Chain-type annual weights   120.7   124.8   121.5   123.6   124.3   125.4	125.9	
	126.4	
Implicit price deflator   120.3   124.9   121.1   123.8   124.5   125.4	126.1	128.
National defense:		
	102.5	100.
Quantity indexes:		
Fixed 1987 weights	81.2	
Chain-type annual weights 88.6 82.5 88.5 83.8 84.0 81.6	80.8	
Benchmark-years weights   88.7   82.7   88.6   83.9   84.1   81.8   Price indexes:	80.9	
	128.1	129.
Chain-type annual weights   121.2   125.8   122.2   124.4   125.3   126.6	126.9	
Benchmark-years weights   121.2   125.9   122.2   124.5   125.4   126.6	127.0	
Implicit price deflator   120.1   125.1   120.8   123.9   124.8   125.7	126.2	128.
Nondefense:		ĺ
Current dollars	151.5	152.
Quantity indexes:		
Fixed 1987 weights   120.4   121.1   121.1   120.1   121.7   122.4	120.4	
Chain-type annual weights   122.1   123.0   122.9   121.8   123.5   124.4	122.5	
Benchmark-years weights   120.7   121.6   121.5   120.4   122.0   122.9	121.1	
Price indexes: Fixed 1987 weights	123.6	125.
Chain-type annual weights 119.1 122.3 119.7 121.6 121.8 122.5	123.3	
Benchmark-years weights   120.5   123.8   121.2   123.0   123.3   124.0	124.8	
Implicit price deflator	125.9	
State and local:		
Current dollars	146.8	147.
Quantity indexes:		1
Fixed 1987 weights 115.2 117.6 115.4 115.5 117.1 118.4	119.4	
Chain-type annual weights 115.0 117.3 115.3 115.4 116.8 118.0	118.9	
Benchmark-years weights 115.1 117.4 115.3 115.4 116.9 118.1	119.0	)
Price indexes: Fixed 1987 weights	123.6	124
Fixed 1987 weights	123.5	
Benchmark-years weights	123.4	 
Implicit price deflator	123.0	

NOTE.—The quantity and price indexes in this table are calculated from weighted averages of the detailed output and prices used to prepare each aggregate and component. The fixed-weighted measures use as weights the composition of output in 1987. For the alternative indexes, the chain-type indexes with annual weights use weights for the preceding and current years, and the indexes with benchmark-years weights use weights of 1959, 1963, 1967, 1972, 1977, 1982, and 1987 and the most recent year. Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.2.—Fixed-Weighted and Alternative Quantity and Price Indexes for Gross Domestic Product, Final Sales, and Purchases

Įmae.	X HUIHO	915, 190	1 = 100]					
				Sea	asonally	adjuste	ed .	
	1992	1993	1992		19	93		1994
			IV	ı	H	III	IV	_
Gross domestic product:								
Current dollars	133.0	140.5	136.4	137.9	139.4	140.9	143.8	145.6
Fixed 1987 weights	109.8	113.1	111.6	111.9	112.4	113.2	115.1	
Chain-type annual weights	109.5	112.5	111.3	111.4	111.9	112.5	114.2	
Benchmark-years weights	109.4	112.3	111.1	111.2	111.7	112.3	114.0	
Price indexes:	122.1	105.0	123.5	124.8	125.6	100.0	107.0	107.0
Fixed 1987 weights Chain-type annual weights	121.5	125.9 125.0	123.5	123.8	124.7	126.3 125.3	127.0 126.0	
Benchmark-years weights	121.7	125.0		124.1	124.9	125.6	126.3	
Implicit price deflator	121.1		122.2	123.3	124.0	124.5	124.9	125.7
	1	12.4.2	1	.20.0		121.0		120.1
Final sales of domestic product 1: Current dollars	133.6	141.0	137.0	138.0	139.9	141.5	144.4	145.7
Quantity indexes: Fixed 1987 weights	110.3	113.5	112.1	111.9	112.7	113.7	115.6	115.8
Chain-type annual weights	109.9	112.8			112.2		114.6	
Benchmark-years weights	109.9	112.7			112.1			
Price indexes:	100.0	. ,,				. ,		
Fixed 1987 weights	122.2	126.0	123.6	124.9	125.7	126.4	127,1	128.0
Chain-type annual weights	121.6	125.0	122.7	123.9	124.7	125.4	126.1	
Benchmark-years weights	121.7	125.3	122.9	124.2	125.0	125.6	126.4	
Implicit price deflator	121.1	124.2	122.2	123.3	124.1	124.5	125.0	125.8
Gross domestic purchases 2:	1					1		
Current dollars	129.6	137.6	133.1	134.7	136.5	138.1	140.8	142.9
Quantity indexes:								
Fixed 1987 weights	107.2	111.3	109.1	109.7	110.6	111.6	113.4	114.5
Chain-type annual weights	106.7	110.2		108.9	109.6		112.0	
Benchmark-years weights	106.7	110.3	108.5	108.9	109.7	110.5	112.1	
Price indexes:	400.0		ا		405.0		400.0	107.0
Fixed 1987 weights	122.0	125.6			125.3		126.6	
Chain-type annual weights	121.5 121.5	124.9 124.9		123.8 123.8	124.6 124.6		125.9	
Benchmark-years weights Implicit price deflator	120.9			122.8	123.5	123.8	124.2	
	120.5	120.0	122.1	122.0	120.0	120.0	127.2	124.0
Final sales to domestic purchasers 3:						l		
Current dollars	130.2	138.0	133.6	134.8	137.0	138.7	141.5	143.0
Quantity indexes:	407.7		100 5	400.7	1100		1,,,,	1115
Fixed 1987 weights	107.7				110.9 109.9			114.5
Chain-type annual weights Benchmark-years weights	107.1							
Price indexes:	107.2	' '0.0	100.9	100.9	'''	' ' ' '	112.5	
Fixed 1987 weights	122.1	125.7	123.4	124.5	125.4	126.0	126.7	127.4
Chain-type annual weights	121.6							
Benchmark-years weights	121.5	124.9	122.8					
Implicit price deflator	120.9	123.6	122.0	122.8	123.5	123.8	124.3	124.8

<sup>1.</sup> Equals GDP less change in business inventories.
2. Equals GDP less net exports of goods and services or equals the sum of personal consumption expenditures, gross private domestic investment, and government purchases.
3. Equals gross domestic purchases less change in business inventories or equals the sum of personal consumption expenditures, gross private domestic fixed investment, and government purchases.

Note.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.3.—Fixed-Weighted and Alternative Quantity and Price Indexes for Gross National Product and Command-Basis Gross National **Product** 

			Seasonally adjusted							
	1992	1993	1992		19	93		1994		
			I۷	ı	II	111	IV	ī		
Gross national product: Current dollars Quantity indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	133.0 109.9 109.6 109.5 122.1 121.4 121.6	113.1 112.4 112.3 125.9 124.9	111.5	111.8 111.3 111.2 124.7 123.8	112.3 111.8 111.7 125.6 124.6	112.5 112.4 126.2 125.2	114.9 114.0 113.9 126.9 126.0			
Implicit price deflator	121.1 164.1 145.7	124.1	122.2	123.3 165.0	124.0	124.4	124.8 174.8			
Plus: Command-basis exports of goods and services and receipts of factor income: Current dollars	176.0 147.0		179.9 147.6				187.5 159.2			
Equals: Command-basis gross national product: Current dollars	133.0 110.0		136.3 111.6		139.2 112.6					

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.4.—Price Indexes for Personal Consumption Expenditures by Major Type of Product, Fixed 1987 Weights

[Index numbers, 1987=100]

Personal consumption expenditures	124.9	128.7	126.5	127.5	128.4	128.9	129.8	130.4
Durable goods	111.5	113.8	112.1	112.6	113.5	114.1	114.9	115.4
Motor vehicles and parts Furniture and household equipment Other	112.2 104.0 124.2	104.3	104.2	103.9		104.3	105.0	117.9 105.3 128.3
Nondurable goods	123.0	124.9	123.8	124.9	125.0	124.5	125.1	125.2
Food Clothing and shoes Gasoline and oil Fuel oil and coal Other	122.0 117.9 123.3 116.5 128.8	119.1 122.2	122.7 118.2 124.7 117.3 130.3	123.5 119.8 126.3 116.2 131.4	123.1 117.4	118.8 116.5	118.8 120.4 114.3	118.6 119.8 115.9
Services	129.5	134.7	131.6	132.8	134.2	135.2	136.3	137.4
Housing Household operation Electricity and gas Other household operation Transportation Medical care Other	124.1 112.5 111.0 113.8 128.3 140.9 132.2	115.6 114.6 116.4 135.5 148.5	125.4 113.9 112.7 114.9 131.9 144.0 134.4	126.5 113.5 112.2 114.6 134.4 145.9 135.4	115.3 114.2 116.2 134.9 147.9	136.0 149.3	116.0 118.0 136.7 150.7	117.4 115.5 119.2 138.2
Addenda: Price indexes for personal consumption expenditures: Chain-type annual weights Benchmark-years weights	124.4 124.5	128.0 128.1	125.8 125.9	126.8 127.0		128.2 128.3	129.1 129.2	

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.6.—Price Indexes for Fixed Investment by Type, Fixed 1987 Weights

[Index numbers, 1987=100]

				Se	asonally	adjust	ed	
	1992	1993	1992		19	93		1994
			IV	ı	11	III	IV	
Fixed investment	112.0	114.7	112.8	113.5	114.4	115.2	115.7	116.2
Nonresidential	111.4	113.3	112.0	112.4	113.1	113.6	114.0	114.5
Structures	114.6			116.3	117.4	118.4	119.3	120.1
farmUtilities	113.7 115.6	117.2 119.3	114.8 116.4	115.6 117.3	116.5 119.4		118.8 120.8	119.4 122.2
wellsOther structures	123.5 110.7	123.3 113.6		122.9 112.3	123.6 113.7		123.3 114.7	125.1 115.1
Producers' durable equipment Information processing and related	109.7	110.9	110.1	110.4	110.9	111.2	111.2	111.6
equipment	93.1	92.3	92.8	92.7	92.3	92.1	91.9	91.8
equipment <sup>1</sup> Other	59.6 107.9	53.0 109.6	57.0 108.5	55.7 109.0	53.6 109.5	52.2 109.7	50.5 110.2	49.5 110.5
Industrial equipment Transportation and related	120.2	122.5	120.9	121.1		123.2	123.4	
equipment Other	116.8 117.1	119.2 119.1	117.3 118.0	118.4 118.2	119.1 119.1	119.6 119.4	119.6 119.6	121.4 119.8
Residential	113.4	117.7	114.8	115.8	117.2	118.5	119.5	120.1
Structures Single family Multifamily Other structures	113.6 113.4 111.3 114.7	118.1	115.0	116.1 116.2 113.5 116.7	117.5 117.3 114.6 118.7	119.2	119.8 120.4 117.6 119.7	120.7
Producers' durable equipment	104.9	105.5	104.9	104.5	105.4	105.9	106.3	106.8
Addenda:  Price indexes for fixed investment: Chain-type annual weights Benchmark-years weights	111.0 110.3	112.9 112.3	111.5 110.9	112.0 111.4				

#### Table 7.9.—Price Indexes for Exports and Imports of Goods and Services and for Receipts and Payments of Factor Income, Fixed 1987 Weights

Exports of goods and services	113.7	115.4	114.3	114.7	115.5	115.7	115.9	116.9
Merchandise <sup>1</sup>	109.6 109.3 110.2 123.7		109.8 109.5	109.4	110.5 111.1 109.3 127.7	110.8	110.8 110.4	112.7
Receipts of factor income <sup>2</sup>	122.5	125.7	123.7	124.9	125.6	126.1	126.5	
Imports of goods and services	115.1	115.0	115.9	114.5	115.6	114.8	115.1	114.6
Merchandise <sup>1</sup>	112.1 112.8 110.7 128.9	112.0 114.3 108.0 128.4		108.6	110.3	107.3	115.4 105.7	115.9
Payments of factor income <sup>3</sup>	125.0	129.1	126.6	127.9	128.9	129.6	130.1	
Addenda: Price indexes for exports of goods and services: Chain-type annual weights Benchmark-years weights Price indexes for imports of goods and services:	112.9 112.3				114.1 113.5			
Chain-type annual weights Benchmark-years weights	113.4 112.3	112.8 111.7	114.1 113.0					

<sup>1.</sup> Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.

Includes new computers and peripheral equipment only.
 NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign affiliates of U.S. corporations. 3. Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S.

affiliates of foreign corporations.

NOTE.— Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.10.—Price Indexes for Exports and Imports of Merchandise by End-Use Category, Fixed 1987 Weights

				Se	asonally	/ adjust	ed	
:	1992	1993	1992		19	93		1994
			I۷	I	ll .	111	IV	ı
Exports of merchandise	109.6	110.4	109.7	110.0	110.5	110.5	110.7	111.8
Foods, feeds, and beverages	114.5 108.3 116.5 104.6 105.8 122.1 58.9 116.5 112.3 118.0 114.5 113.0 113.0	116.1 109.2 125.2 101.9 105.9 125.6 52.1 117.2 119.8 115.0 124.0 113.9 113.9	111.7 108.8 118.7 104.4 105.5 56.3 117.0 118.8 115.0 122.1 113.4 113.4	113.1 109.1 122.3 103.1 105.8 124.6 54.9 117.1 113.3 119.6 115.4 123.3 113.4 113.4	113.1 110.4 127.5 102.6 106.0 125.4 52.7 117.9 113.3 119.7 114.9 114.1 114.1	118.2 109.1 126.2 101.3 105.7 125.1 51.2 118.1 119.7 114.8 124.1 113.8 113.8	120.1 108.3 124.9 100.8 106.0 126.8 49.7 118.6 113.3 120.1 114.8 124.8 114.1 114.1	124.8 110.5 128.0 102.5 106.0 127.2 48.9 118.6 115.2 115.3 115.3
Imports of merchandise	112.1	112.0	113.1	111.6	112.7	111.8	111.9	111.4
Foods, feeds, and beverages	108.1 114.2 115.3 113.1 100.8 107.3 122.2 61.4 116.5 114.8 118.3 116.9 120.1 114.7 114.7	107.9 114.3 117.0 111.5 91.4 108.0 125.6 55.6 118.4 116.9 119.4 120.7 115.9	107.2 114.4 114.7 114.0 104.0 108.0 123.5 59.0 117.8 115.9 122.3 115.8 115.8	117.9 119.8 114.8	106.6 115.0 117.4 112.4 99.1 107.7 125.4 56.3 117.8 116.5 119.7 120.9 115.8 115.8	115.5 111.1 88.5 108.6 125.2 55.0 119.3 117.0 119.5 118.4 120.8 116.0	110.7 114.0 117.3 110.4 81.6 109.0 126.9 53.4 120.1 118.9 119.7 118.6 121.1 117.3 117.3	110.9 115.4 120.0 110.6 74.7 108.8 120.5 120.5 119.8 118.9 117.4 117.4
Addenda: Exports of agricultural products ' Exports of nonagricultural products Imports of nonpetroleum products	111.5 109.4 113.4	113.3 110.0 114.3	109.8 109.7	111.1 109.8 113.4	110.5 110.5 114.3	115.0 109.9	116.6 109.9 115.3	121. 110. 115.

<sup>1.</sup> Includes parts of: exports of foods, feeds, and beverages, of nondurable industrial supplies and materials, and of nondurable consumer goods, except automotive.

Table 7.11.—Price Indexes for Government Purchases by Type, Fixed 1987 Weights

[index numbers, 1907=100]												
				Se	asonally	adjust	ed					
	1992	1993	1992		19	93		1994				
			١٧		II	III	IV					
Government purchases	120.6	124.3	121.7	123.2	124.0	124.8	125.1	126.2				
Federal	121.8	126.2	122.8	125.1	125.8	126.8	127.0	128.4				
National defense  Durable goods  Nondurable goods  Services  Compensation of employees  Military  Civilian  Other services  Structures	122.3 113.7 115.6 127.1 134.6 136.6 130.6 116.4 114.0	127.2 117.6 113.1 132.9 143.1 143.8 141.7 118.5 117.7	123.5 115.3 117.8 128.0 135.1 136.6 132.0 117.8 116.2	125.9 117.1 113.0 131.2 140.6 142.3 137.1 117.8 117.2	126.8 117.9 115.9 132.1 141.7 143.3 138.3 118.5 117.4	127.9 117.9 112.6 134.0 144.7 143.9 146.5 118.8 117.3	128.1 117.6 110.8 134.4 145.4 145.7 144.9 118.8 118.8	129.2 117.8 106.1 136.5 148.6 148.6 148.5 119.3 119.7				
Nondefense  Durable goods  Nondurable goods  Commodity Credit Corporation	<b>120.2</b> 101.2	<b>123.0</b> 93.1	<b>120.9</b> 96.9	<b>122.5</b> 94.0	<b>122.5</b> 94.0	<b>123.4</b> 94.1	<b>123.6</b> 90.3	<b>125.8</b> 92.1				
inventory change	107.9 124.5 129.3 117.9 113.7	105.9 129.0 136.4 118.7 116.5	106.0 125.5 130.6 118.4 114.8	106.0 128.0 135.2 118.1 115.1	106.3 128.3 135.7 118.1 116.2	106.0 129.3 136.4 119.3 116.8	105.2 130.4 138.2 119.5 117.7	106.7 133.3 143.0 119.8 118.3				
State and local	119.6 113.2 115.4 122.6 127.5 69.3 109.5	122.8 115.3 116.0 126.1 132.1 60.5 113.1	120.9 113.6 114.9 124.0 129.2 67.0 111.6	121.8 114.5 116.2 125.0 130.6 63.9 111.5	122.7 115.4 117.9 125.7 131.6 60.3 113.0	123.2 115.8 115.6 126.6 132.7 60.1 113.3		115.5 128.1				
Addenda:												
Price indexes for government purchases: Chain-type annual weights	120.0 120.2	123.5 123.7	121.0 121.3	122.4 122.6	123.2 123.5	123.9 124.2						
defense purchases: Chain-type annual weights Benchmark-years weights Price indexes for Federal nondefense	121.2 121.2	125.8 125.9	122.2 122.2	124.4 124.5	125.3 125.4	126.6 126.6						
purchases: Chain-type annual weights Benchmark-years weights Price indexes for State and local purchases:	119.1 120.5	122.3 123.8	119.7 121.2	121.6 123.0	121.8 123.3	122.5 124.0	123.3 124.8					
Chain-type annual weights Benchmark-years weights	119.6 119.5			121.7 121.6	122.6 122.5							

Table 7.12.—Price Indexes for National Defense Purchases, Fixed 1987 Weights

				Se	asonally	/ adjust	ed	
	1992	1993	1992		19	93		1994
			IV	-	I	III	IV	1
National defense purchases	122.3	127.2	123.5	125.9	126.8	127.9	128.1	129.2
Durable goods	113.7	117.6	115.3	117.1	117.9	117.9	117.6	117.8
Military equipment Aircraft Missiles Ships Vehicles Electronic equipment Other Other durable goods	114.4 118.4 98.6 118.4 120.9 109.2 116.6 106.5	118.8 125.7 98.3 121.7 128.0 109.8 118.2 106.1	116.2 121.8 97.4 119.2 124.1 109.6 117.9 106.3	118.2 124.8 99.1 120.7 126.0 109.7 118.2 106.3	119.1 125.3 99.9 121.4 130.8 109.6 118.2 106.2	119.0 127.0 96.8 122.7 126.9 109.6 117.9 105.8	118.8 125.8 97.5 122.1 128.3 110.0 118.3 106.0	118.9 127.5 91.0 123.3 131.0 110.3 118.8 106.3
Nondurable goods	115.6	113.1	117.8	113.0	115.9	112.6	110.8	106.1
Petroleum products Ammunition Other nondurable goods	119.7 108.5 117.9	112.5 111.4 115.3	124.2 111.5 116.8	111.1 111.3 116.7	119.7 111.1 116.2	110.8 112.6 114.3	108.3 110.5 113.8	94.0 111.0 114.7
Services	127.1	132.9	128.0	131.2	132.1	134.0	134.4	136.5
Compensation of employees	134.6 136.6 130.6 116.4	141.7 118.5	135.1 136.6 132.0 117.8	140.6 142.3 137.1 117.8	141.7 143.3 138.3 118.5	144.7 143.9 146.5 118.8	145.4 145.7 144.9 118.8	
development	111.9 113.5 120.5 134.7 104.6 110.6	115.7 124.4 136.0 105.2	113.5 114.5 122.1 136.8 104.5 111.3	113.8 113.8 123.1 134.9 104.9 115.6	113.6 115.4 124.0 136.4 104.8 115.6	113.2 116.8 124.4 136.0 105.8 116.2	111.7 116.9 126.1 136.9 105.3 118.2	112.5 117.0 127.7 136.7 105.3 119.2
Structures	114.0	117.7	116.2	117.2	117.4	117.3	118.8	119.7
Military facilities	106.1 128.6	108.3 135.0	107.5 132.2	108.1 133.9	108.0 134.8	107.7 135.0	109.4 136.0	110.7 136.2
Addenda:  Price indexes for national defense purchases: Chain-type annual weights	121.2 121.2		122.2 122.2	124.4 124.5	125.3 125.4	126.6 126.6		

<sup>1.</sup> Includes utilities, communications, rental payments, maintenance and repair, and payments to contractors to

Table 7.13.—Implicit Price Deflators for the Relation of Gross Domestic Product, Gross National Product, Net National Product, and National Income

[Index numbers, 1987=100]

Gross domestic product	121.1	124.2	122.2	123.3	124.0	124.5	124.9	125.7
Plus: Receipts of factor income from the rest of the world <sup>1</sup>	122.5	125.8	123.7	124.9	125.6	126.1	126.5	
rest of the world 2	124.8	128.7	126.3	127.7	128.4	129.2	129.4	
Equals: Gross national product	121.1	124.1	122.2	123.3	124.0	124.4	124.8	
Less: Consumption of fixed capital	110.6	112.2	111.0	111.5	111.9	112.5	112.7	113.2
Equals: Net national product	122.5	125.7	123.6	124.8	125.5	126.0	126.4	
Less: Indirect business tax and nontax liability plus business transfer payments less subsidies plus current surplus of government enterprises Statistical discrepancy	131.3 119.8							133.4
Equals: National income	121.6	125.1	122.9	124.5	124.9	125.1	125.7	
Addenda: Net domestic product Domestic income	122.5 121.7	125.8 125.1	123.7 123.0	124.9 124.6		126.1 125.2		127.4

<sup>1.</sup> Consists largely of receipts by U.S. residents of interest and dividends and reinvested earnings of foreign

Table 7.14.—Implicit Price Deflators for Gross Domestic Product by Sector

[Index numbers, 1987=100]

				Se	asonally	/ adjust	ed	
	1992	1993	1992		19	93		1994
			١٧	ŧ		Ш	IV	1
Gross domestic product	121.1	124.2	122.2	123.3	124.0	124.5	124.9	125.7
Business	119.8	122.6	120.9	121.8	122.5	122.9	123.2	123.9
Nonfarm  Nonfarm less housing  Housing  Farm  Statistical discrepancy	120.1 119.5 125.5 106.1 119.8	122.8 122.4 127.3 110.7 122.6	121.2 120.8 124.5 104.9 120.9	121.6 126.9	122.8 122.3 126.8 109.3 122.5	122.7 127.4	128.1 117.8	131.9
Households and institutions	127.7	131.9	129.8	131.3	131.3	131.9	133.2	134.7
Private households Nonprofit institutions	115.7 128.2	119.4 132.5			118.7 131.9			121.7 135.3
General government	129.0	134.4	130.3	132.8	133.8	135.1	136.0	137.8
FederalState and local	132.8 127.4	140.6 131.9			139.5 131.4			146.5 134.4
Addendum: Gross domestic business product less housing	119.3							

Table 7.15.—Current-Dollar Cost and Profit Per Unit of Constant-**Dollar Gross Domestic Product of Nonfinancial Corporate Business** 

[Dollars]

Current-dollar cost and profit per unit of constant-dollar gross domestic product 1	1.149	1.164	1.154	1.162	1.164	1.164	1.165	
Consumption of fixed capital	.125	.123	.122	.124	.123	.124	.122	
Net domestic product	1.024	1.040	1.032	1.037	1.041	1.039	1.044	
Indirect business tax and nontax liability plus business transfer payments less subsidies	.116 .908 .762	.923			.923			
valuation and capital consumption adjustments Profits tax liabilityProfits after tax with inventory valuation and capital	.099 .035	.109 .040	.109 .037	.102 .037	.108 .040	.108 .038	.118 .044	
consumption adjustments	.064 .048	.069 .046	.072 .046	.065 .047	.068 .046	.070 .045	.075 .044	

<sup>1.</sup> Equals the deflator for gross domestic product of nonfinancial corporate business with the decimal point shifted two places to the left.

<sup>2.</sup> Includes depot maintenance and contractual services for weapons systems, other than research and

<sup>3.</sup> Includes compensation of foreign personnel, consulting, training, and education.

affiliates of U.S. corporations.

2. Consists largely of payments to foreign residents of interest and dividends and reinvested earnings of U.S. affiliates of foreign corporations.

Table 8.1.—Percent Change From Preceding Period in Selected Series [Percent]

			San	sonally	adiueto	d at an	nual ro	tos	-	<u> </u>		See	sonally	adiueto	d at an	nual re	ates
	1992	1993	1992	SUITALITY	199		iuai ia	1994		1992	1993	1992	Sorially	199		iuai ia	1994
	1002	1000	IV	1	11	<del>   </del>	IV	1004		1002	1000	IV	1			IV	1
Gross domestic product: Current dollars	5.5 2.6 2.3	5.6 3.0 2.7	9.2 5.7 5.5	4.4 .8 .4	4.3 1.9 1.8	4.4 2.9 2.2	8.4 7.0 6.2	2.6	Structures: Current dollars Quantity indexes: Fixed 1987 weights Chain-type annual weights	-5.5 -6.0 -6.0	3.5 .6	-2.1	3.1 .5 .6	12.6 8.1 8.4	3.4 .3 .3		-14.0 -16.1
Benchmark-years weights . Price indexes: Fixed 1987 weights . Chain-type annual weights Benchmark-years weights .	3.3 3.1 3.2	2.7 3.1 2.9 2.9	5.5 3.1 2.8	4.3 4.1 4.1	1.8 2.8 2.7 2.7	2.2 2.1 2.1 2.1	6.2 2.3 2.4	2.9	Benchmark-years weights . Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights .	-6.0 .6 .6	.7	-1.9 2.7 2.8	.6 2.5 2.4 2.4	8.4 3.8 3.9 3.9	3.4 3.3 3.3	3.2 3.3 3.3	2.5
Personal consumption expenditures: Current dollars Quantity indexes: Fixed 1987 weights Chain-type annual weights	6.0 2.6 2.3	6.1 3.3 3.0	9.9 5.6 5.1	3.8 .8 .6	6.1 3.4 3.2	5.5 4.4 4.0	6.8 4.4 3.9	3.8	Producers' durable equipment: Current dollars	5.3 6.9			14.3 19.9	19.7 19.8	3.9 10.0	23.8 26.0	1
Benchmark-years weights Price indexes: Fixed 1987 weights Chain-type annual weights	2.5 3.7 3.6	3.1 3.0 2.9	5.2 3.1 2.9	.6 3.4 3.3	3.2 2.9 2.9	4.0 1.4 1.5 1.5	3.9 2.8 2.8	2.1	Chain-type annual weights Benchmark-years weights . Price indexes: Fixed 1987 weights Chain-type annual weights	4.7 5.7 1.3	13.5 13.8 1.1 .1	11.9 –.2	14.5 14.5 1.2 .3	19.1 19.1 1.8 .8	4.7 4.7 1.0 .3	25.0 25.0 .1 5	1.3
Benchmark-years weights  Durable goods: Current dollars Quantity indexes:	3.6 8.6	8.2	13.1	3.3 -1.0	13.3	8.0	16.3		Benchmark-years weights .  Residential:  Current dollars	.5 .8 17.9	.2	9	.3 5.2	.8 -4.8	.3	5 36.4	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes: Fixed 1987 weights	7.0 6.7 6.8 2.2	7.3 6.5 6.6 2.0	13.2 12.1 12.2 1.1	-1.3 -2.2 -2.2	10.8 10.4 10.4 3.3	7.6 6.4 6.4 2.0	15.2 14.1 14.1 2.6		Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes:	16.3 16.3 16.3	8.7	32.8 32.9 32.8	1.5 1.6 1.6	-9.5 -9.4 -9.4	1	31.7 31.9 31.9	
Chain-type annual weights Benchmark-years weights Nondurable goods:	1.8 2.0	1.7 1.7	1.0 1.1	1.4 1.4	2.8 2.8	1.8 1.8	2.4 2.4	**********	Fixed 1987 weights Chain-type annual weights Benchmark-years weights  Exports of goods and services:	1.3 1.4 1.4	3.8 3.8 3.8	3.6		5.0 5.1 5.1	4.6 4.3 4.3	3.2 3.1 3.1	
Current dollars	3.4 1.4 1.4 1.4	3.8 2.4 2.2 2.3	7.3	-2.1 -2.2	2.9 2.7 2.5 2.5	2.3 3.7 3.5 3.5	4.5 2.7 2.5 2.5	2.4	Current dollars	6.5 6.4 5.6 6.0	3.5 2.6	8.8 8.1	-2.4 -2.7	5.5 3.6 3.3 3.3	9 -3.4	19.1 20.4 19.3 19.3	-9.3
Fixed 1987 weights Chain-type annual weights Benchmark-years weights	2.1 2.0 2.1	1.6 1.5 1.5	1.1	3.5 3.4 3.4	.5 .4 .4	-1.6 -1.3 -1.3	1.8 1.9 1.9		Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	1.2 .8 1.0	9. ا	.8	1.5 .8 .8	2.8 2.4 2.4		.7 .3 .3	
Services:  Current dollars	6.9 2.2 2.0 2.1	6.9 2.9 2.7 2.8	2.9 2.6	6.4 3.1 2.8 2.8	6.3 2.1 2.0 2.0	6.8 3.9 3.8 3.8	6.0 2.6 2.5 2.5	3.1	Imports of goods and services:  Current dollars	7.2	10.3 8.7	5.6 5.0	11.6 9.8	13.3 11.8		15.4 16.4 15.3 15.3	2.8
Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights Gross private domestic investment:	5.0 4.8 4.9	4.0 3.9 4.0	4.4	3.7 3.7 3.7	4.3 4.2 4.2	2.9 2.9 2.9	3.4 3.4 3.4		Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	1.2	1 5 5	-1.3 -1.0	-4.7 -5.3	3.8 3.2 3.2	-3.1	1.1 .2 .2	
Current dollars		10.2	13.3 13.8	19.3	0 .3 –1.2	4.6 5.0 2.0	24.9 25.8 25.1	17.4	Government purchases: Current dollars Quantity indexes: Fixed 1987 weights Chain-type annual weights	2	7	-1.4 8	-5.9	4.3 4.0	.3	1.5 0 .1	-6.2
Benchmark-years weights Price indexes: Fixed 1987 weights									Benchmark-years weights	3.4 3.1	3.1 2.9	2.6 2.5	-5.9 5.0	4.0 2.6 2.7	0	1.0 1.5 1.5	3.7
Fixed investment: Current dollarsQuantity indexes:	5.8	11.0	15.3	9.2	10.6	7.3	25.6	7.2	Federal: Current dollars	.7	-1.2	4	-8.3	4.4	-3.4	-3.2	2 -5.3
Fixed 1987 weights	5.1 5.6 1.1	2.4	14.1 14.3	7.7 7.7	9.0 8.2 8.2 3.3	5.7 5.7 2.7	24.1		Fixed 1987 weights	-3.4 -3.5	-4.6 -4.5	-2.1 2.1	-15.0 -15.0 7.5	2.2 2.2 2.3	−6.5 −6.5	-5.2 -4.7 -4.7	7 7 
Chain-type annual weights Benchmark-years weights  Nonresidential: Current dollars	.8 .9	1.8 1.8	1.1 1.2	1.7	2.7 2.7	2.1 2.1	1.4 1.4		Chain-type annual weights Benchmark-years weights National defense:	4.2 4.4	3.4 3.5	1.8 2.0	7.2 7.2	2.3 2.3	3.5 3.5	1.5 1.5	5
Quantity indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	2.9 1.2 2.0	11.8 9.6	7.6 7.4	14.4 10.3	16.6 16.0	7.4 3.4	22.5 21.2	5.5	Chain-type annual weights Benchmark-years weights	-7.1 -7.1	-7.2 -6.8	-4.6 -3.0	-13.1 -21.4 -19.6 -19.6	.7 .8	-9.8 -10.6	-4.9 -4.1	-13.9 1
Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	.5	1.7 .9 1.0	1.	1.0	2.5 1.8 1.8	1.2	.е	3	Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	4.7	3.8	1.8	7.6	2.9	4.0	.5 1.0 1.0	o

Table 8.1.—Percent Change From Preceding Period in Selected Series—Continued

[Percent]

			Sea	asonally	adjust	ed at an	nual ra	tes
	1992	1993	1992		19	93		1994
			IV	-	11	III	IV	
Nondefense: Current dollars	9.4	3.8	1.8	3.6	6.2	4.9	-2.8	1.4
Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes:	6.2 6.2 6.2	.6 .8 .8	4 1 1	-3.2 -3.5 -3.5	5.5 5.5 5.5	2.5 2.9 2.9	-6.5 -5.9 -5.9	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights	3.1 3.1 3.1	2.4 2.7 2.7	1.9 1.9 1.9	5.7 6.3 6.3	0 .8 .8	2.9 2.3 2.3	.6 2.6 2.6	
State and local: Current dollars Quantity indexes:	4.5	4.6	3.1	3.3	8.3	5.8	4.5	.6
Fixed 1987 weights	2.2 2.1 2.1	2.1 2.0 2.0	.1 .1	.3 .4 .4	5.6 5.2 5.2	4.5 4.2 4.2	3.3 3.1 3.1	
Fixed 1987 weights Chain-type annual weights Benchmark-years weights	2.5 2.4 2.4	2.6 2.6 2.6	2.9 2.9 2.9	3.0 2.9 2.9	2.9 3.0 3.0	1.8 1.6 1.6	1.5 1.4 1.4	
Addenda: Final sales of domestic product: Current dollars	5.2	5.5	9.1	2.9	5.7	4.8	8.5	3.5
Quantity indexes:  Fixed 1987 weights  Chain-type annual weights  Benchmark-years weights	2.3 2.0 2.1	2.8 2.6 2.5	5.8 5.6 5.5	8 -1.1 -1.1	3.2 3.0 3.0	3.4 2.7 2.7	6.8 6.1 6.1	.9
Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	3.3 3.1 3.2	3.1 2.9 3.0	3.2 2.7 2.8	4.3 4.1 4.1	2.8 2.7 2.7	2.1 2.1 2.1	2.3 2.4 2.4	2.9
Gross domestic purchases: Current dollars	5.7	6.2	9.1	5.0	5.4	4.8	8.1	6.0
Quantity indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	2.9 2.5 2.7	3.8 3.3 3.3	5.4 5.1 5.1	2.5 1.7 1.7	3.1 2.7 2.7	3.7 3.0 3.0	6.7 6.0 6.0	4.1
Price indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights	3.3 3.1 3.2	2.9 2.8 2.8	2.8 2.7 2.7	3.5i 3.4 3.4	2.9 2.8 2.8	1.8 1.7 1.7	2.3 2.4 2.4	2.3
Final sales to domestic purchasers:  Current dollars	5.4	6.0	9.0	3.5	6.8	5.2	8.2	4.2
Fixed 1987 weights	2.5 2.2 2.4	3.7 3.2 3.2	5.5 5.2 5.2	.8 .3 .3	4.4 4.0 4.0	4.2 3.5 3.5	6.6 5.8 5.8	
Fixed 1987 weights	3.3 3.1 3.2	2.9 2.8 2.8	2.8 2.7 2.7	3.5 3.3 3.3	2.9 2.8 2.8	1.8 1.7 1.7	2.3 2.4 2.4	
Gross national product: Current dollars	5.4	5.5	8.5	4.6	4.2	4.8	7.6	
Quantity indexes: Fixed 1987 weights Chain-type annual weights Benchmark-years weights Price indexes:	2.5 2.2 2.3	2.9 2.6 2.6	5.0 4.9 4.8	1.0 .6 .6	1.9 1.7 1.7	3.3 2.7 2.7	6.2 5.4 5.4	
Fixed 1987 weights	3.3 3.1 3.2	3.1 2.9 2.9	3.1 2.7 2.8	4.3 4.1 4.1	2.8 2.7 2.7	2.1 2.1 2.1	2.4	
Command-basis gross national product: Quantity index, fixed 1987 weights	2.5	3.1	4.7	1.9	1.9	3.7	6.1	
Disposable personal income: Current dollars	6.4 2.9	4.6 1.9	15.1 10.6	-5.1 -7.8	8.5 5.8	2.7 1.6	7.8 5.4	4.1 2.7

NOTE.—Except for disposable personal income, the quantity and price indexes in this table are calculated from weighted averages of the detailed output and prices used to prepare each aggregate and component. The fixed-weighted measures use as weights the composition of output in 1987. For the alternative indexes, the chain-type indexes with annual weights use weights for the preceding and current years, and the indexes with benchmark-years weights use weights of 1959, 1963, 1967, 1972, 1977, 1982, and 1987 and the most recent year.

Table 8.2.—Selected Per Capita Product and Income Series in Current and Constant Dollars and Population of the United States [Dollars]

				Seasona	ally adjuste	ed at annu	ual rates	
	1992	1993	1992		19	93		1994
			IV	1	11	111	IV	ı
Current dollars:								
Gross domestic product	23,637	24,696	24,143	24,346	24,538	24,732	25,166	25,426
product Personal income . Disposable	23,665 20,139	24,697 20,864	24,134 20,767	24,347 20,430		24,756 20,930		21,458
personal income Personal	17,615	18,225	18,153	17,876	18,196	18,265	18,561	18,705
consumption expenditures Durable goods Nondurable	16,205 1,947	17,006 2,083	16,589 2,013			17,088 2,095	17,321 2,170	17,501 2,221
goods Services	5,092 9,166	5,227 9,695	5,190 9,385			5,229 9,763	5,273 9,878	5,294 9,986
Constant (1987) dollars:								
Gross domestic product	19,518	19,888	19,754	19,744	19,786	19,869	20,150	20,231
product Disposable	19,548	19,897	19,755	19,754	19,793	19,898	20,143	
personal income Personal	14,219	14,330	14,490	14,163	14,326	14,341	14,491	14,554
consumption expenditures Durable goods Nondurable	13,081 1,787	13,372 1,897	13,241 1,845	13,234 1,835	13,312 1,878	13,416 1,907	13,523 1,970	13,617 2,012
goods Services	4,161 7,133	4,213 7,261	4,216 7,179	4,184 7,216	4,200 7,234	4,226 7,283	4,242 7,310	4,257 7,348
Population (mid- period, thousands)	255,472	258,254	256,569	257,197	257,872	258,612	259,334	259,949

Table 8.3.—Auto Output

			Sea	sonally	adjuste	ed at an	nual ra	es
	1992	1993	1992			1994		
			IV	1	II	Ш	IV	ı
Auto output	133.2	142.5	136.4	142.8	145.9	134.6	146.7	166.3
Final sales  Personal consumption expenditures  New autos  Net purchases of used autos  Producers' durable equipment  New autos  Net purchases of used autos  Net exports  Exports  Imports  Government purchases	133.5 126.7 87.3 39.5 37.6 62.2 -24.6 -32.8 14.3 47.0 2.0	91.3 43.0 39.1 67.0 -28.0 -37.7 14.5 52.2	90.3 40.6 37.1 62.7 -25.6 -32.6 15.9 48.4	127.7 86.8 40.9 36.9 61.8 -24.9 -35.3	43.3 42.2 72.6 -30.4 -37.0 14.9	90.2 45.2 38.9 67.4 -28.5 -39.3 13.2 52.5	66.4 -28.2 -39.2 15.4	
Change in business inventories of new and used autos	<b>3</b> .3 6	<b>4.9</b> 3.4 1.4	<b>8</b> 7 1	11.4 12.0 7	<b>5.0</b> 1.6 3.5	-3.4	<b>5.5</b> 3.5 2.0	<b>5.1</b> 6.1 -1.0
Addenda:  Domestic output of new autos <sup>1</sup> Sales of imported new autos <sup>2</sup>	104.1 60.1	110.7 64.1	108.0 60.5		111.9 65.5			

- Consists of final sales and change in business inventories of new autos assembled in the United States.
   Consists of personal consumption expenditures, producers' durable equipment, and government purchases.

Table 8.5.—Truck Output

[Billions of dollars]

Truck output 1	83.3	101.3	93.7	100.0	97.0	98.0	110.3	127.2
Final sales  Personal consumption expenditures  Producers' durable equipment  Net exports  Exports  Imports  Government purchases	82.2 43.3 37.1 -5.1 5.6 10.7 6.9	101.8 52.3 49.2 -5.4 5.8 11.2 5.6	47.8 41.1 -4.6 6.0 10.7	<b>92.4</b> 49.7 45.3 -6.7 5.2 11.9 4.1	102.0 52.0 48.2 -6.4 5.7 12.1 8.2	50.0 48.6 -4.8 5.4 10.2	57.7 54.8 -3.6 6.9 10.5	123.1 61.2 60.2 -3.5 6.6 10.1 5.2
Change in business inventories	1.2	5	1.7		-5.0		-2.8	4.2

<sup>1.</sup> Includes new trucks only.

#### Table 8.4.—Auto Output in Constant Dollars

[Billions of 1987 dollars]

			Sea	easonally adjusted at annual rates								
	1992	1993	1992		19	93		1994				
			١٧	1	11	Ш	IV	1				
Auto output	117.4	121.1	120.1	122.5	123.4	113.5	125.0	138.0				
Final sales  Personal consumption expenditures  New autos  Producers' durable equipment  New autos  Net purchases of used autos  Net purchases of used autos  Net exports  Exports  Imports  Government purchases	117.8 113.9 77.9 36.0 32.8 55.5 -22.7 -30.5 12.7 43.3 1.7	115.5 79.5 36.0 34.7 58.4 -23.7 -34.1 12.7 46.9	115.8 79.9 35.9 32.7 55.5 -22.8 -30.4 14.1 44.5	76.5 35.7 32.6 54.5 -21.9 -32.6 12.8	115.5 78.9 36.6 37.5 63.5 -26.0 -33.5	115.4 78.2 37.2 34.6 58.5 -23.9 -35.4 11.6	118.8 84.4 34.0 57.1 -23.2 -34.9 13.6	127.2 88.4 38.9 35.5 61.2 -25.7 -27.7 14.5 42.2				
Change in business inventories of new and used autos	<b>4</b> .1 6	3.4 2.2 1.2		<b>8.5</b> 9.1 –.6	<b>2.2</b> 7 3.0	-3.7	<b>5.8</b> 4.2 1.6					
Addenda:  Domestic output of new autos <sup>1</sup> Sales of imported new autos <sup>2</sup>	92.8 53.6		96.8 53.6		96.5 57.3	85.8 60.4						

- Consists of final sales and change in business inventories of new autos assembled in the United States.
   Consists of personal consumption expenditures, producers' durable equipment, and government purchases.

#### Table 8.6.—Truck Output in Constant Dollars

Truck output 1	71.4	83.5	79.5	83.7	80.2	79.9	90.1	102.5
Final sales	70.4	83.8	78.1	77.3	84.2	81.4	92.3	99.2
Personal consumption expenditures	37.1	43.3	40.7	42.0	43.3	40.9	46.9	49.5
Producers' durable equipment	31.8	40.4	34.8	37.6	39.6	39.5	44.8	48.4
Net exports	-4.4	-4.5	-3.9	-5.7	-5.4	-4.0	-2.9	-2.9
Exports	4.8	4.8	5.1	4.4	4.6	4.4	5.7	5.3
Imports	9.1	9.2	9,1	10.1	10.0	8.4	8.6	8.1
Government purchases	5.9	4.6	6.6	3.4	6.7	4.9	3.5	4.2
Change in business inventories	1.0	4	1.4	6.3	<b>-4.1</b>	-1.5	-2.3	3.3

<sup>1.</sup> Includes new trucks only.

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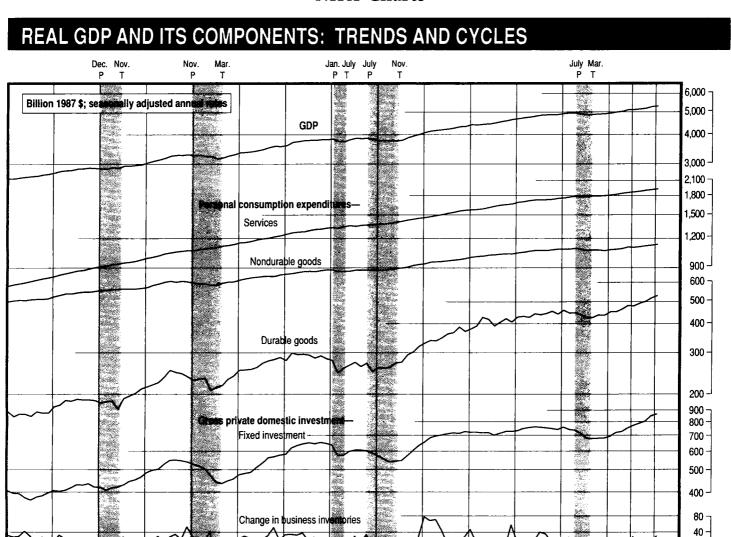
500

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#### NIPA Charts



anige Sales

Net exports of goods and services

imports

Government purchases—

Exports

Federal

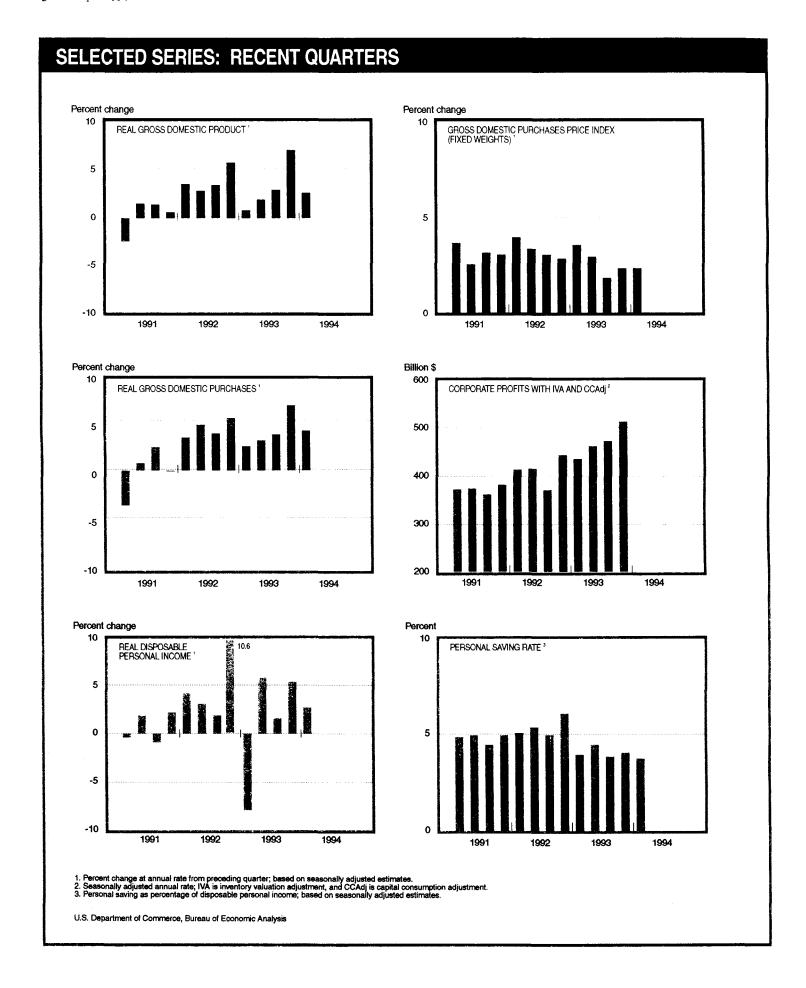
68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89

State and local

(Marija)

1966 67

權計



## **Selected Monthly Estimates**

#### Table 1.—Personal Income

[Billions of dollars; monthly estimates seasonally adjusted at annual rates]

	1992	1993						1993		****				1994				
	1992	1993	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan."	Feb.	Mar. P		
Personal income	5,144.9	5,388.3	5,249.1	5,289.2	5,365.6	5,380.4	5,373.6	5,365.1	5,432.3	5,440.6	5,478.7	5,511.2	5,548.1	5,501.1	5,600.0	5,633.1		
Wage and salary disbursements  Private industries  Commodity-producing industries  Manufacturing  Distributive industries  Service industries  Government	2,973.1 2,405.6 756.5 577.6 682.0 967.0 567.5	3,080.5 2,490.8 763.6 577.3 706.6 1,020.6 589.7	2,976.3 2,393.9 742.7 561.0 684.3 967.0 582.3	2,975.8 2,392.9 740.8 559.6 683.0 969.0 583.0	3,068.3 2,483.8 765.2 582.1 704.9 1,013.6 584.5	3,093.8 2,507.3 766.7 580.3 713.1 1,027.5 586.4	3,086.0 2,497.9 763.3 578.4 709.2 1,025.4 588.1	3,101.6 2,511.3 766.8 579.5 713.2 1,031.3 590.3	3,124.3 2,531.8 769.4 581.2 717.3 1,045.1 592.6	3,120.4 2,524.9 772.1 583.7 712.8 1,040.0 595.5	3,137.7 2,543.3 774.6 584.0 719.0 1,049.7 594.4	3,147.1 2,552.0 779.4 587.5 718.4 1,054.1 595.1	3,164.0 2,567.2 783.9 591.8 722.9 1,060.4 596.8	3,191.5 2,590.6 785.6 592.1 731.4 1,073.6 600.9	3,197.8 2,595.6 790.3 597.2 731.4 1,073.8 602.2	3,212.9 2,610.1 792.6 598.1 737.6 1,079.8 602.8		
Other labor income	322.7	350.7	338.5	341.2	343.9	346.6	349.3	352.0	354.7	357.4	360.1	362.9	365.8	368.8	371.9	375.1		
Proprietors' income with IVA and CCAdj	414.3 43.7 370.6	443.2 46.0 397.3	436.9 48.2 388.7	470.2 82.0 388.2	449.4 59.7 389.7	437.9 45.2 392.7	430.8 36.0 394.8	403.8 10.6 393.1	430.5 31.1 399.4	433.2 32.7 400.4	449.8 43.9 406.0	470.4 60.0 410.4	480.8 65.3 415.4	464.7 54.1 410.6	478.0 62.2 415.8	484.1 63.6 420.5		
Rental income of persons with CCAdj	8.9	12.6	9.5	8.1	14.3	12.0	11.9	7.1	16.1	17.9	16.8	16.4	15.9	-43.7	24.6	29.5		
Personal dividend income	140.4	158.3	157.1	157.2	157.5	157.8	158.2	158.6	159.0	159.3	159.4	159.4	159.5	159.7	160.4	162.0		
Personal interest income	694.3	695.2	695.3	695.2	694.1	693.1	692.0	693.6	695.7	697.8	697.3	696.7	696.2	697.9	700.1	702.5		
Transfer payments to persons Old-age, survivors, disability, and health insurance benefits Government unemployment insurance benefits	858.4 413.9 39.2 405.2	912.1 438.4 34.1 439.6	892.6 432.5 32.9 427.2	898.3 432.5 36.0 429.7	901.7 434.7 34.0 433.0	904.5 435.1 32.8 436.7	910.2 435.3 36.4 438.4	914.3 438.9 34.3 441.1	919.4 438.4 36.2 444.7	921.8 441.0 34.7 446.2	925.9 444.1 32.0 449.8	927.5 444.3 31.8 451.4	936.2 450.0 32.9 453.2	940.7 455.0 28.6 457.1	946.2 458.4 27.0 460.7	947.0 459.3 25.1 462.6		
Less: Personal contributions for social insurance	249.3	264.3	256.9	256.9	263.5	265.3	264.9	265.9	267.4	267.0	268.3	269.1	270.2	278.4	278.9	280.0		
Addenda: Total nonfarm income Total farm income 1	5,080.1 64.8	5,320.0 68.3	5,179.0 70.1	5,185.1 104.0	5,283.7 81.9	5,312.8 67.6	5,315.0 58.6	5,332.2 33.0	5,378.7 53.6	5,385.4 55.3	5,412.1 66.6	5,428.4 82.8	5,459.9 88.3	5,423.9 77.2	5,514.6 85.4	5,546.1 87.0		

Source: U.S. Department of Commerce, Bureau of Economic Analysis. CCAdj Capital consumption adjustment IVA Inventory valuation adjustment

#### Table 2.—The Disposition of Personal Income

[Monthly estimates seasonally adjusted at annual rates]

	1003															
	1992													1994		
	1332	1330	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. r	Feb. "	Mar.₽
	Billions of dollars, unless otherwise indicated															
Personal income	5,144.9	5,388.3	5,249.1	5,289.2	5,365.6	5,380.4	5,373.6	5,365.1	5,432.3	5,440.6	5,478.7	5,511.2	5,548.1	5,501.1	5,600.0	5,633.1
Less: Personal tax and nontax payments	644.8	681.6	657.3	659.0	677.8	683.1	682.0	685.5	690.7	690.9	694.8	698.7	704.1	712.9	715.3	718.9
Equals: Disposable personal income	4,500.2	4,706.7	4,591.9	4,630.1	4,687.8	4,697.3	4,691.6	4,679.6	4,741.6	4,749.7	4,783.9	4,812.5	4,844.0	4,788.3	4,884.7	4,914.2
Less: Personal outlays	4,261.5	4,516.8	4,435.1	4,409.8	4,459.4	4,481.9	4,509.4	4,527.6	4,544.0	4,560.4	4,604.7	4,618.7	4,636.9	4,635.1	4,693.5	4,712.6
Personal consumption expenditures Durable goods Nondurable goods Services	4,139.9 497.3 1,300.9 2,341.6	4,391.8 537.9 1,350.0 2,503.9	4,311.6 508.2 1,345.0 2,458.4	4,286.1 506.7 1,327.2 2,452.2	4,335.8 526.6 1,342.3 2,466.9	4,358.7 532.7 1,344.1 2,481.8	4,385.3 535.6 1,348.1 2,501.6	4,403.3 540.0 1,349.6 2,513.7	4,419.2 544.1 1,350.5 2,524.6	4,434.8 541.6 1,357.1 2,536.1	4,477.9 559.4 1,366.3 2,552.1	4,490.8 562.1 1,366.0 2,562.7	4,507.4 566.8 1,370.0 2,570.5	4,504.3 567.7 1,359.9 2,576.7	4,562.5 577.3 1,383.9 2,601.2	4,581.4 587.3 1,384.3 2,609.8
Interest paid by persons Personal transfer payments to rest of the world (net)	111.1 10.4	114.0 11.0	112.4 11.0	112.7 11.0	112.7 11.0	112.2 11.0	113.1 11.0	113.5 10.8	114.0 10.8	114.8 10.8	115.6 11.2	116.6 11.2	118.3 11.2	119.2 11.7	119.3 11.7	119.5 11.7
Equals: Personal saving	238.7	189.9	156.8	220.4	228.4	215.4	182.3	152.0	197.7	189.3	179.2	193.9	207.2	153.2	191.2	201.6
Addenda:  Disposable personal income: Total, billions of 1987 dollars <sup>1</sup> Per capita: Current dollars 1987 dollars Population (thousands)  Personal consumption expenditures: Total, billions of 1987 dollars Durable goods Nondurable goods Services Implicit price deflator, 1987=100  Personal saving as percentage of disposable personal income <sup>2</sup>	3,632.5 17,615 14,219 255,472 3,341.8 456.6 1,062.9 1,822.3 123.9	3,700.9 18,225 14,330 258,254 3,453.2 490.0 1,088.1 1,875.2 127.2	3,636.5 17,854 14,139 257,190 3,414.5 465.5 1,082.2 1,866.9 126.3	3,660.4 17,988 14,220 257,403 3,388.4 464.4 1,067.4 1,856.6 126.5	3,694.2 18,196 14,339 257,631 3,416.7 479.5 1,079.0 1,858.3 126.9	3,697.7 18,216 14,339 257,870 3,431.2 485.2 1,081.7 1,864.3 127.0	3,691.2 18,176 14,301 258,115 3,450.2 487.9 1,088.8 1,873.6 127.1	3,678.5 18,113 14,238 258,356 3,461.2 491.8 1,089.8 1,879.6 127.2	3,721.3 18,335 14,389 258,612 3,468.2 494.9 1,090.0 1,883.3 127.4 3.8	3,726.3 18,348 14,395 258,869 3,479.2 492.5 1,099.1 1,887.7 127.5 4.0	3,740.2 18,463 14,435 259,106 3,500.9 506.6 1,100.4 1,894.0 127.9 3.9	3,755.5 18,557 14,481 259,336 3,504.4 509.9 1,098.3 1,896.1 128.1	3,778.1 18,663 14,556 259,556 3,515.5 516.3 1,101.8 1,897.3 128.2	3,741.1 18,434 14,402 259,757 3,519.2 515.8 1,094.1 1,909.3 128.0 3.8	3,798.2 18,791 14,612 259,947 3,547.7 523.0 1,113.6 1,911.1 128.6	3,810.5 18,890 14,648 260,143 3,552.4 530.0 1,112.3 1,910.2 129.0
							Percent of	change from	n preceding	period						
Personal income, current dollars	6.1	4.7	0.4	0.8	1.4	0.3	-0.1	-0.2	1.3	0.2	0.7	0.6	0.7	0.8	1.8	0.6
Disposable personal income: Current dollars	6.4 2.9	4.6 1.9	.5 .2	.8 .7	1.2 .9	.2 .1	~.1 ~.2	3 3	1.3 1.2	.2 .1	.7 .4	.6 .4	.7 .6	-1.1 -1.0	2.0 1.5	.6 .3
Personal consumption expenditures: Current dollars 1987 dollars	6.0 2.6	6.1 3.3	.5 .2	6 8	1.2 .8	.5 .4	.6 .6	.4 .3	.4 .2	.4 .3	1.0 .6	.3 .1	.4 .3	1 .1	1.3 .8	.4 .1

<sup>P Preliminary.
Revised.
1. Equals farm proprietors' income, farm wages, farm other labor income, and agricultural net interest.</sup> 

<sup>P Preliminary.
Revised.

1. Disposable personal income in 1987 dollars equals the current-dollar figure divided by the implicit price deflator for personal consumption expenditures.</sup> 

Monthly estimates equal the centered 3-month moving average of personal saving as a percentage of the centered 3-month moving average of disposable personal income.Source: U.S. Department of Commerce, Bureau of Economic Analysis.

#### Table 3.—U.S. International Transactions in Goods and Services

[Millions of dollars; monthly estimates seasonally adjusted]

	1992	1000						1993						1994		
	1992	1993	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.r	Feb.P	Mar.
Exports of goods and services	619,848	643,563	51,829	54,090	53,568	53,746	52,563	52,399	52,731	53,660	54,957	54,735	57,250	54,296	52,902	
Goods Foods, feeds, and beverages Industrial supplies and materials Capital goods, except automotive Automotive vehicles, engines, and parts Consumer goods (nonfood), except automotive Other goods Adjustments <sup>1</sup>	440,138 40,209 109,307 176,709 47,080 50,382 24,476 -8,026	456,771 40,391 111,953 183,037 51,691 53,413 24,288 -8,002	36,253 3,447 8,683 14,251 4,380 4,237 1,931 -675	38,382 3,468 9,238 15,579 4,307 4,351 1,951 -513	37,841 3,411 9,109 15,226 4,424 4,242 2,067 -638	38,249 3,310 9,676 15,278 4,298 4,501 1,866 -681	36,977 3,151 8,833 15,255 4,115 4,291 1,994 –662	36,577 3,223 9,327 14,336 3,792 4,442 1,989 -532	37,224 3,053 8,967 15,296 4,170 4,491 2,073 -826	38,134 3,432 9,581 14,999 4,125 4,597 2,151 -751	39,371 3,499 9,893 15,579 4,521 4,559 2,041 -721	39,451 3,472 9,681 15,565 4,740 4,791 1,987 -785	41,469 3,666 9,792 17,186 4,635 4,666 2,288 -765	38,528 3,314 8,977 16,097 4,425 4,515 1,979 -778	37,165 3,174 8,605 15,242 4,497 4,425 1,956 -734	
Services Travel Passenger lares Other transportation Royalties and license fees Other private services Transfers under U.S. military agency sales contracts 2 U.S. Government miscellaneous services	179,710 53,861 17,353 22,773 20,238 53,601 11,015 869	186,792 56,501 17,849 23,508 20,414 56,434 11,259 827	15,576 4,722 1,519 1,891 1,628 4,735 1,027 54	15,708 4,668 1,491 2,026 1,646 4,774 1,039 63	15,727 4,796 1,522 2,000 1,725 4,588 1,002	15,497 4,690 1,491 1,942 1,746 4,543 985 99	15,586 4,700 1,517 1,951 1,752 4,606 963 97	15,822 4,911 1,542 1,916 1,732 4,683 971 68	15,507 4,705 1,475 1,893 1,725 4,703 947 60	15,526 4,669 1,459 1,951 1,718 4,761 912 56	15,586 4,726 1,476 2,052 1,709 4,728 832 63	15,284 4,531 1,416 1,938 1,705 4,829 802 63	15,781 4,874 1,507 2,009 1,705 4,836 787 63	15,767 4,898 1,539 2,005 1,719 4,703 838 66	15,737 4,857 1,509 1,983 1,721 4,764 835 69	
Imports of goods and services	659,575	720,324	55,464	61,038	60,252	58,647	60,886	59,290	59,775	61,843	63,417	62,190	61,398	60,938	62,608	
Goods Foods, feeds, and beverages Industrial supplies and materials Capital goods, except automotive Automotive vehicles, engines, and parts Consumer goods (nonfood), except automotive Other goods Adjustments <sup>1</sup>	536,276 27,857 138,273 134,193 91,779 122,973 17,590 3,611	589,210 28,050 145,021 152,788 102,447 133,852 18,354 8,699	44,992 2,174 11,052 11,718 8,347 10,264 1,278 160	50,168 2,389 12,643 12,379 8,850 11,489 1,598 821	49,331 2,240 12,643 12,426 8,777 11,094 1,481 671	48,059 2,304 12,265 12,302 8,159 10,671 1,605 753	50,076 2,341 12,753 13,094 8,589 11,307 1,614 378	48,334 2,316 12,096 12,822 7,769 11,001 1,529 800	48,871 2,331 11,734 12,456 8,523 11,680 1,373 774	50,702 2,437 12,193 13,004 8,742 11,612 1,518 1,196	52,015 2,563 12,493 13,653 8,995 11,740 1,547 1,025	50,802 2,348 12,283 13,283 8,811 11,504 1,687 887	50,217 2,343 11,561 13,966 8,912 11,080 1,740 616	49,878 2,457 11,566 14,181 8,466 11,266 1,538 403	51,051 2,379 12,092 13,965 8,823 11,431 1,572 789	
Services Travel Passenger fares Other transportation Royalties and license fees Other private services Direct defense expenditures <sup>2</sup> U.S. Government miscellaneous services	123,299 39,872 10,943 23,454 4,986 27,988 13,766 2,290	131,114 42,329 11,256 24,511 4,748 33,595 12,286 2,388	10,472 3,447 911 1,870 361 2,618 1,066 199	10,869 3,494 933 2,149 369 2,668 1,058 198	10,921 3,521 944 2,088 393 2,718 1,067 191	10,588 3,366 894 2,003 401 2,674 1,060 190	10,811 3,376 905 2,093 407 2,791 1,050 190	10,956 3,503 911 2,080 410 2,843 1,000 210	10,904 3,457 918 2,020 411 2,901 983 213	11,141 3,634 960 2,044 412 2,905 975 212	11,402 3,715 1,008 2,133 409 2,954 984 199	11,388 3,698 1,004 2,085 409 3,013 983 196	11,181 3,613 951 2,036 409 2,995 983 194	11,061 3,555 948 1,987 414 2,989 972 196	11,556 3,708 994 1,989 683 3,026 961	
Memoranda: Balance on goods	-96,138 56,411 -39,727	-132,439 55,678 -76,761	-8,739 5,104 -3,635	-11,787 4,839 -6,948	-11,491 4,806 -6,684	-9,810 4,909 -4,901	-13,098 4,775 -8,323	-11,757 4,866 -6,891	-11,647 4,603 -7,044	-12,568 4,385 -8,183	-12,643 4,184 -8,460	-11,351 3,896 -7,455	-8,748 4,600 -4,148	-11,350 4,707 -6,643	-13,886 4,181 9,706	

definitions used to prepare BEA's international and national accounts.
2. Contains goods that cannot be separately identified.
Source: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

P Preliminary.
 Revised.
 1. Reflects adjustments necessary to bring the Census Bureau's component data in line with the concepts and

# Integrated Economic and Environmental Satellite Accounts

The existing systems of national economic accounts—including national income and product accounts, input-output accounts, and balance sheets—are without question premier tools for analysis and decisionmaking. Since their origins over 50 years ago, they have been refined, extended, and updated to reflect changes in the economy and to respond to changing analytical and policy concerns. Continuing this evolution, this article and its companion "Accounting for Mineral Resources: Issues and BEA's Initial Estimates," beginning on page 50, present new work by BEA on an accounting framework that covers the interactions of the economy and the environment. To do so, this framework provides new breakdowns that are relevant to the analysis of these interactions and extends the existing accounts' definition of capital to cover natural and environmental resources. The framework takes the form of a satellite account—an account that supplements, rather than replaces, the existing accounts.

This article presents the analytical and economic accounting background for the new work, an overview of the satellite accounting framework, and a long-term plan to implement the framework. Because it introduces a topic that has both economic and environmental dimensions, some parts of the article may appear elementary—perhaps even oversimplified—to readers familiar with the economic (and economic accounting) dimensions, while other parts may appear elementary to those familiar with the environmental dimensions.

The second article discusses the conceptual and methodological issues in mineral resource accounting and presents estimates of mineral stocks and changes in those stocks for the past several decades. It is a technically oriented article that describes in some detail the alternative valuation methods and the source data and estimating procedures used to prepare the new estimates.

Over the years, the national economic accounts have benefited from discussion and critique of concepts, source data, and estimating methods. The same is to be expected for the IEESA's, as BEA's new integrated economic and environmental satellite accounts are being called. I invite your comments.

Carol S. Carson Director, Bureau of Economic Analysis

THE ECONOMY and the natural environment interact at many points, and these interactions raise analytical questions.

- The Nation's wealth includes natural resources, such as oil and gas reserves and timber, that are used in production. At what rate are these resources being used?
- The income of producers in the mineral industries includes a return to the drilling rigs, mining equipment, and other structures and equipment engaged in them and a return to the mineral. What share is attributable to the mineral?
- Economic activity adds to the proved stock of natural resources by exploration and technological innovation. How much of the use

- of natural resources in production has been offset by these additions?
- Households, governments, and business all make expenditures to maintain or restore the environment. What share of their spending is for the environment?
- The economy disposes of wastes into the air and water, and the resulting degradation of the environment imposes costs, such as lower timber yields and fish harvests and higher cleaning costs. What are these costs? Which sectors bear them?

The answers to questions such as these about the interaction of the economy and the environment are often based on partial and sometimes even inconsistent information, suggesting the need to identify and quantify the interactions within a systematic framework as a basis for more informed analysis and decisionmaking. This article introduces the integrated economic and environmental satellite accounts (IEESA's), which are meant to help fill that need. The IEESA's are a supplementary set of accounts structured to show the interactions of the economy and the environment more fully than the existing economic accounts. While the IEESA's build on the existing economic accounts, they do not replace them; likewise, IEESA measures do not replace measures, such as gross domestic product (GDP), from the existing accounts.

The Bureau of Economic Analysis (BEA) began work leading to this article—and to the companion article about mineral resources, which begins on page 50—in 1992. At that time, as part of a long-term program to modernize its economic accounts, BEA began research on two sets of accounts to supplement the existing national accounts. One of these sets of supplementary accounts, called satellite accounts, focused on the stock, and changes in the stock, of natural resources. (The roles that satellite accounts can

serve and their general structure are introduced in the accompanying box.) Work on the natural resources satellite accounts was given added impetus and extended in scope in 1993 when President Clinton, as part of his April 21 Earth Day address, gave high priority to the development of "Green gdp measures [that] would incorporate changes in the natural environment into the calculations of national income and wealth." At that time, BEA committed to producing initial estimates of natural resource depletion within a year.

The first section of this article discusses the analytical and economic accounting background of the IEESA'S and concludes with a summary of a United Nations system of satellite accounts for the environment, after which BEA'S accounts are fashioned. The second section introduces the main features of the IEESA'S, presents an inventory of available data sources, and considers uses of the new accounts. The final section describes BEA'S long-term work plan for developing the satellite accounts, the first phase of which is completed with the presentation of the two articles in this issue of the Survey of Current Business. Bibliographic references for both articles begin on page 62.

# Satellite Accounts: What Are They?

Satellite accounts are frameworks designed to expand the analytical capacity of the national accounts without overburdening them or interfering with their general-purpose orientation. In this role, satellite accounts organize information in an internally consistent way that suits the particular analytical focus at hand, yet they maintain links to the existing national accounts. Further, because they supplement, rather than replace, the existing accounts, they can be a laboratory for economic accounting in that they provide room for conceptual development and methodological refinement.

In their most flexible applications, satellite accounts may use definitions and concepts that differ from the existing accounts. For example, a satellite account may be built around a broader concept of capital formation than the existing accounts. This flexibility is being used in BEA's work on integrated economic and environmental accounts and on research and development accounts. Satellite accounts such as these use different concepts and definitions by design; in other respects, they retain consistency with the existing accounts.

Satellite accounts can add detail or other information about a particular aspect of the economy to that in the existing accounts; for instance, they can integrate monetary and physical data. They can ar-

range information differently, perhaps by cutting across sectors to assemble information on both intermediate and final consumption. For example, a satellite account can assemble business expenditures on training—treated as intermediate consumption in the existing accounts—and education-related expenditures by households and government to analyze the role of education in the economy. They can use a classification other than the primary one. For example, they can identify expenditures on "research in education" as part of research expenditures even though they are included in education expenditures in the existing accounts.

The terminology and concepts associated with satellite accounts reflect the experiences of several countries that have constructed them, largely on an ad hoc basis, for fields such as health, education, agriculture, research and development, and the environment. The System of National Accounts 1993, the newly revised international guidelines, includes a chapter that provides a general framework for satellite accounts and demonstrates how that framework can be used for some of the fields in which such accounts would be most useful. This chapter represents, in a real sense, the coming of age of satellite accounts as an analytical tool.

<sup>1.</sup> The other set, on research and development, will be introduced in an upcoming issue of the Survey of Current Business.

# The Background for Integrated Economic and Environmental Accounting

# The analytical background

It is, of course, a simplification to speak of the economy and the environment as two distinct realms. It can be argued, for example, that the economy is part of nature because the economic activity of human beings in producing food and shelter parallels the similar activity of animals. In this simplification, the economy is defined as the human activities relating to income, production, consumption, accumulation, and wealth (although there is a continuing discussion about the scope to be given, for example, to the term "production"). The term "environment" refers to the environment of human beings, which is made up of the biological resources, subsoil resources, land and related ecosystem resources, water, and air. From the standpoint of the economy, the environment can be thought of as consisting of a range of natural resource and environmental assets that provide an identifiable and significant flow of goods and services to the economy.

The economy uses these productive natural assets in a wide range of ways. Crude oil pumped from proved reserves, for example, is used in the production of petroleum products, while clean water in lakes and oceans is used in the production of fish, paper products, and electric power. The economy's uses of the goods and services provided by these environmental assets can be grouped into two general classes. When use of the natural asset permanently or temporarily reduces its quantity, the use is viewed as involving a flow of a good or service, and the quantitative reduction in the asset is called depletion. In that class of uses, biological resources, for example, are used as food, as raw materials for clothing, and as building materials and fuel. Water is used for drinking, cooling, processing, and irrigation.

When use of the natural asset reduces its quality, the qualitative reduction in the asset is called degradation. These qualitative uses include the conversion of land from one use to another, such as the partial development of forestland. The development of forestland results in a reduction in the economic value of the land as forestland because of the reduction in the flow of recreational services associated with its degradation as a wildlife area and tourist destination. In another kind of qualitative use, natural assets are used as a sink for the disposal of residual pollutants that are byproducts of production.

The use of natural assets describes only part of the interaction between the economy and the environment. There are also feedback effects. Materials balance and energy accounting highlight both the use of the natural assets and the feedback effects from the use; thus, they capture the full interaction between the economy and the environment.<sup>2</sup> In the case of natural resources, oil pumped from reserves today reduces the quantities that can be extracted from existing fields in the future; similarly, overharvesting of fish stocks today reduces yields in the future.

In the case of environmental assets, the feed-back is more complicated, with effects that often fall on other industries and consumers. For example, when businesses use environmental goods and services along with labor and capital in production, residuals—such as lead and cadmium, or carbon monoxide and sulfur oxides—are also produced and are then disposed of into the environment. Up to a point, the environment is able to assimilate these residuals; beyond that point, however, significant environmental degradation affects the ability of the environment to provide

### Acknowledgments

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<sup>2.</sup> Materials balance and energy accounting, developed in the late 1960's, is based on the first law of thermodynamics—that matter can neither be created nor destroyed. The accounts therefore describe a circular flow process: A raw material input is transformed by the processes of the economy, this transformation results in a new product and in residuals, and those residuals are transformed in the natural environment into raw materials.

raw materials to the economy (and to assimilate residuals). Degradation of air and water quality, for example, may lead to economic feedback—for example, lower timber yields and fish harvests, higher rates of depreciation in plant and equipment, additional cleaning costs, and increased health expenditures. In addition, either because of governmental regulations or the need to dispose of residuals that the environment can no longer handle, businesses and others may need to make expenditures for pollution abatement and control.

Integrated economic and environmental accounting aims to provide a picture of these interactions between the economy and the environment. Although this picture, as already noted, has numerous elements and is complex, by definition it does not cover many of the transformations and interactions within the environment itself-for example, the disposal of waste products from wild fish and mammals or the conversion of natural carbon dioxide into oxygen by plant matter on land and in the The accounts highlight the fact that economic sustainability depends on environmental sustainability, and they provide data to help analyze the costs and benefits for the careful stewardship of our economic and environmental assets. Consistent and detailed accounting of the interactions between the economy and the environment provides a common framework for integrating the work of environmental specialists, economists, and other analysts from a wide range of disciplines.

## The economic accounting background

Economic accountants have long been aware of the issues that arise with respect to natural resources and the environment. One of the issues, which is also reviewed in the companion article, is whether the economic accounts should reflect the parallelism that is apparent in business accounting between depreciation, a charge for the using up of plant and equipment in production, and depletion, a charge for the using up of natural resources in production. In particular, because depletion of mineral resources has long been chargeable against profits in the U.S. tax code and because tax return tabulations have been used as source data for profits and other property income components of the national income and product accounts (NIPA's), explicit decisions were required on the treatment of depletion in the accounts. Initially, depletion was treated symmetrically with depreciation, but no entry was made for additions to the stock of mineral resources parallel to the treatment of investments in structures and equipment. As a result of dissatisfaction with this asymmetric treatment, the entry for depletion was removed beginning in 1947.

In the late 1960's and early 1970's, environmental accounting issues came up as part of a broader interest in social accounting. Work by James Tobin and William Nordhaus, among others, on adjusting traditional economic accounts for changes in leisure time, disamenities of urbanization, exhaustion of natural resources, population growth, and other aspects of welfare produced indicators of economic well-being. However, the seemingly limitless scope, the range of uncertainty, and the degree of subjectivity involved in such measures of nonmarket activities limited the usefulness of, and interest in, these social indicators. It was felt that inclusion of such measures would sharply diminish the usefulness of traditional economic accounts for analyzing market activities. Attention subsequently focused on more readily identifiable and directly relevant market issues, such as the extent to which expenditures that relate to the protection and restoration of the environment (and other socalled defensive expenditures) are identifiable in the economic accounts.

In response to this interest in environmental protection, in the mid-1970's, BEA was a pioneer in the development of estimates of pollution abatement and control (PAC) expenditures in a national accounting framework. Further, presaging what was to come, the framework for these estimates can be viewed as an early form of a satellite account. The PAC estimates focus on an area of interest and provide detail that would have burdened presentation of the more general NIPA estimates.

The steps in the evolution of natural resource and environmental accounting since the early 1980's can be summarized in terms of international efforts, in which there was active U.S. participation, and the literature related to these effects. For this purpose, 1982 is a reasonable place to start. In that year, the United Nations Environment Program (UNEP) was given the mandate to develop methodological guidelines on environmental accounting. In its earlier work, UNEP had tried to clarify the linkages between economic development and the environment to help integrate issues of environmental and resource management into the framework of economic decisionmaking. To follow up on

the mandate, UNEP and the World Bank sponsored a series of workshops in 1983-86 to explore the current state of environmental and natural resource accounting. The general thinking was that although economists had long considered the "external effects" of production and consumption, they had not taken into account the effects on the resource system as a whole and the consequence that eventually someone was going to have to bear the "external costs." A broader view would internalize environmental costs in the production process, for which it would be essential to calculate costs and benefits properly and to distinguish clearly between true income and the drawing down of assets by depletion or degradation. Accordingly, the workshops focused on the shortcomings of traditional economic accounting: GDP does not adequately represent true income because environmental protection costs are treated as generating income and because depletion and degradation of natural resources are not charged against current income. A number of remedies for these shortcomings were proposed, but workable methodologies and good data were lacking, and some of the proposals were conflicting.3

Although the empirical foundations for integrating environmental and economic accounting estimates were lacking in the mid-1980's, a growing body of research and information was accumulating.4 France, Norway, and the Netherlands were working toward physical accounting matrices, which they have integrated into cost-benefit and cost-effectiveness work in the environmental policy field. Subsequently, Canada, the United Kingdom, Japan, and Australia all did preliminary work toward supplementing their traditional accounts. The United Nations and the World Bank jointly sponsored pilot studies with statisticians in Mexico and Papua New Guinea. In addition to these country efforts, researchers-such as Henry Peskin, working with the Environmental Protection Agency in a study of the Chesapeake Bay region, and Robert Repetto and his associates at the World Resources Institute, in their studies of China, Costa Rica, and the Philippines—have added significantly to the growing literature on environmental accounting.

In the meantime, a revision of the System of National Accounts (SNA), the international guidelines followed by most countries in preparing their economic accounts, was undertaken. A ma-

jor issue was the extent to which the revised sna would remedy the perceived shortcomings of traditional national accounts.

The discussion stimulated by the 1987 report of the World Commission on Environment and Development, Our Common Future, gave added reason to explore statistical measures that would provide appropriate tools to guide policy and decisionmaking.[34] This report focused on sustainable development—that is, development that meets the needs of the present without compromising the ability to meet the needs of the future. According to the report, the Commission had been established by the United Nations General Assembly because of the growing realization that it is impossible to separate economic development issues from environmental issues—the realization, in other words, that many forms of development erode the environmental resources upon which they are based, and that such environmental degradation can undermine economic development.

By 1989, it became clear that, given the divergent views on a number of conceptual and practical issues in natural resource and environmental accounting, international consensus in time for a fundamental change in the SNA as part of the ongoing revision was not possible. Therefore, it was agreed that the revised SNA would address links to environmental concerns, such as the definition and boundary for assets, and that a satellite account for integrated economic and environmental accounting would be pursued. The United Nations undertook the preparation of a handbook to provide guidance on the construction of the satellite account.

Subsequently, this approach found support in several forums. In May 1991, a Special Conference of the International Association for Research in Income and Wealth brought together economic accountants and environmental specialists to discuss a preliminary version of the United Nations handbook. In June 1992, the United Nations Conference on Environment and Development (the "Earth Summit") in Rio de Janeiro included a program for establishing systems of integrated accounts as a complement to the existing system in its Agenda 21.[29] Agenda 21 urged national offices that prepare economic accounts to undertake the work and urged the United Nations to distribute widely, and then refine, its handbook. In October 1992, economic accountants, in a seminar held to review the revised SNA, generally welcomed the features that link to the environment and the section of the revised SNA's chapter

<sup>3.</sup> See Salah El Serafy and Ernst Lutz [7].

<sup>4.</sup> See, for example, Henry M. Peskin and Ernst Lutz [17].

on satellite accounts that discusses integrated economic and environmental accounts based on the United Nations handbook. In February 1993, the Statistical Commission of the United Nations endorsed the revised sna.<sup>5</sup> The Commission, in highlighting the important features of the revised sna, noted that it laid the groundwork for dealing with the interaction between the economy and the environment.

# The United Nations System of Environmental and Economic Accounting

The United Nations System of Environmental and Economic Accounting (SEEA), as described in the handbook, is a flexible, expandable satellite system.[30] It draws on the materials balance approach to present the full range of interactions between the economy and the environment. The SEEA builds on, and is designed to be used with, the System of National Accounts 1993 (hereafter SNA 1993) [31]. Like the SNA, the SEEA is primarily concerned with the implications of the environment for production, income, consumption, and wealth.

The seea has four stages, each successively providing a more comprehensive accounting for the interaction between the economy and the environment. The four-stage presentation recognizes the need to develop concepts, to inventory and augment source data, and to adapt the implementation to differing analytical needs. The starting point is the SNA 1993, which incorporated several features that anticipated the needs of environmental accounting.<sup>6</sup> Stage A disaggregates, or provides additional detail on, environmentally related economic activities and assets. This stage, for example, focuses on actual expenditures intended to prevent or repair the degradation of the environment. It includes a detailed breakdown of the stocks of natural resource assets and changes in these stocks. Finally, it includes sector links to show the supply and uses of natural resources. The use of natural resources—depletion and degradation—can be broken down into intermediate inputs by industry, investment, final consumption by households and government, and imports and exports.

Stage B begins with the physical counterpart of stage A. It maps, in physical terms, the interaction between the environment and the economy. It provides the physical quantities to which prices are applied to derive the economic values included in the economic accounts. These physical accounts also provide a bridge to natural resource accounting and to materials and energy balances accounting. Stage B then links the physical quantities to monetary values.

Stage C provides far more comprehensive and explicit measures of the interaction between the economy and the environment. It does so, first, by the use of alternative valuation techniques that is, alternatives to the use of values tied to the market, the valuation used in the SNA 1993 and in traditional accounting systems. The alternative valuation techniques include estimates based on maintenance costs, or the costs necessary to maintain at least the present level of environmental assets, and estimates based on contingent valuation, or the willingness to pay for reductions in depletion or degradation of natural assets. Second, it does so by the more explicit introduction of environmental effects on the measures of national production, investment, income, and wealth. Stages A and B of the SEEA (as well as the SNA 1993) record environmental effects either as changes in the value of assets or as changes in the distribution of income among the factors of production; these changes do not explicitly affect gross domestic product, final demand, or net domestic product.

Stage D consists of further extensions of the SEEA. These extensions are provided for the purpose of "opening a window on further analytical applications," and they will require further research. They include household production and the use of recreational and other unpriced environmental services in household production.

# Framework for the IEESA's

BEA'S IEESA'S build on the accumulating experience represented in the SEEA. This experience is consistent with two lessons from social accounting in the 1970's. First, such accounts should be focused on a specific set of issues. Second, given the kind of uses to which the estimates would be put, the early stage of conceptual develop-

<sup>5.</sup> For a summary of the SNA, the revision process, and the new features, see [30].

<sup>6.</sup> The two main features that anticipated the needs of environmental accounting dealt with the coverage of assets and the recording of changes in them. First, the SNA 1993 includes within the boundary of economic assets all assets over which ownership rights can be established and enforced and that provide economic benefits to their owners. This boundary explicitly includes natural assets, both those whose growth is the result of human cultivation (for example, vineyards and livestock) and those that, although not cultivated, are under control of an owner (for example, land, subsoil assets, and water resources). Second, it records all changes in the value of assets from one balance sheet to another. As part of doing this, there is an account to record certain changes in assets not recorded as production or as costs of production; this account records, for example, the additions to, and depletion of, subsoil assets and the natural growth of uncultivated forests. Another account records changes in the value of assets due to price change. Further, the SNA 1993 describes how to use these and other features as a point of departure for an environmental satellite account.

ment, and the statistical uncertainties (even if the estimates are limited to the effect on market activities), such estimates should be developed in a supplemental, or satellite, framework.

# Structural features

The IEESA's are structured to focus on the interaction of the economy and the environment. The interactions covered are those that can be tied to market activities and thus valued in market prices or proxies thereof. They are shown as effects on production, income, consumption and wealth.

The accounts have two main structural features. First, natural resources and environmental resources are treated like productive assets. These resources, along with structures and equipment, are treated as part of the Nation's wealth, and the flow of goods and services from them are identified and their contribution to production measured. Second, the accounts provide substantial detail on expenditures and assets that are relevant to understanding and analyzing the interaction. Fully implemented IEESA's would permit identification of the economic contribution of natural and environmental resources by industry, by type of income, and by product. Ultimately, accounts by region would add an important analytical dimension.

Natural and environmental resources as productive assets.—An example helps to explain the reasoning behind treating natural and environmental resources like productive assets in the economic accounts. This example is much simplified, notably in that it shows only one side of an account, focuses on aggregates, and uses descriptive rather than technically precise terminology. In this example, all income from production goes to either "wages" or "profits." Wages are recorded as earned; however, profits—that is, total revenues less labor and other operating expenditures—are reduced by an entry for "depreciation," where depreciation is the amount that must be set aside to cover the using up of capital in production. Thus, for an industry and for all industries combined, wages plus profits and depreciation equals gross domestic product (GDP).

In the traditional accounts, the economy would be pictured as follows:

Wages	6,000
Plus: Profits	3,000
Depreciation	1,000
Gross domestic product	10,000
•	

Because depreciation is included in GDP, GDP is not a measure of sustainable income; that is, if a nation consumed all of its GDP, it would reduce the productive capacity available to future generations because it had consumed the amount it should have set aside to cover the using up of capital. In fact, the "gross" in the name, gross domestic product, refers to that feature. As a better measure of sustainable income, the traditional accounts provide net domestic product (NDP), which is calculated as GDP less depreciation.

Gross domestic product	10.000
Less: Depreciation	
Net domestic product	9,000
<u>^</u>	

Capital in the traditional accounts is limited to structures and equipment. In the IEESA's, natural and environmental resources are viewed as having characteristics similar to structures and equipment: Labor and materials are devoted to producing them, and they then yield a flow of services over time. For that reason, the IEESA's include these resources, along with structures and equipment, as part of the Nation's wealth and give them the same treatment as structures and equipment in the traditional accounts. The IEESA's deal with three points of asymmetry between the treatment of natural resources-for example, mineral reserves-and of structures and equipment encountered in traditional accounts. In traditional accounts: (1) depreciation is subtracted from profits to determine true, or sustainable, profits, but depletion is not; (2) depreciation is subtracted from GDP to estimate NDP, but depletion is not; and (3) additions to the stock of plant and equipment are added to GDP as capital formation, but additions to mineral reserves are not.

The depletion of mineral reserves is like the depreciation of plant and equipment: It is the amount that must be set aside to cover the cost of using up mineral resources in production. If an oil company earns \$3,000 in profits but depletes its mineral reserves by \$100, then its true economic profits are only \$2,900, the amount over and above its depletion of assets. In the IEESA's, therefore, an estimate is made of the amount of profits that should be recognized as depletion. This amount is subtracted from profits and entered, like depreciation, as a separate component, thereby dealing with the first point of asymmetry. Further, depletion, like depreciation, must

be subtracted from GDP to arrive at NDP. Doing so deals with the second point of asymmetry.

Wages	6,000
Plus: Profits (IEESA)	2,900
Depreciation	1,000
Depletion	100
Gross domestic product (IEESA)	10,000
Less: Depreciation	1,000
Depletion	100
Net domestic product (IEESA)	8,900

Note that recognizing depletion lowers profits and changes the composition of GDP, but the level of GDP itself is not reduced; recognizing depletion reduces NDP in comparison with the traditional accounts' NDP.

In the IEESA's, additions to mineral reserves (for example, extensions as a result of investments in improved technology or additions as a result of exploration) are treated like additions to the stock of structures and equipment—that is, as capital formation. Additions to reserves do not appear in the traditional accounts; therefore, to treat them as capital formation, they are added to GDP. In the IEESA's, additions to reserves raise capital formation, profits, GDP, and NDP. Recognizing the additions to reserves thus deals with the third point of asymmetry. If the additions amounted to 150, the economy would be pictured as follows:

Wages	6,000
Plus: Profits (IEESA)	3,050
Of which: Capital formation in mineral reserves.	150
Depreciation	1,000
Depletion	100
Gross domestic product (IEESA)	10,150
Less: Depreciation	1,000
Depletion	100
Net domestic product (IEESA)	9,050
ı	

Compared with the traditional accounts, both the composition and level of GDP differ. Thus, the IEESA's give a view of an industry's production that reflects changes in its resource base. The IEESA's measure of NDP, therefore, is a better measure of sustainable income than the traditional accounts' measure because it incorporates changes in mineral wealth as well as structures and equipment. Whether the IEESA's measure of NDP is higher or lower than in the traditional accounts depends on whether depletion or additions is larger, and this will vary from resource to resource and from period to period. Estimates of this kind for all natural and environmental resources would help gauge whether the current level of gdp can be maintained by the Nation's natural resource base.

Detail that highlights the interaction.—In the IEESA's, the standard economic accounting categories are disaggregated to show detail that highlights the interaction of the economy and the environment. For example, the expenditures detail shows spending by households, government, and business to maintain or restore the environment. The asset detail shows environmental management (conservation and development, and water supply) and waste-management projects (sanitary services, air and water pollution abatement and control) within the standard category of nonresidential fixed capital.

The estimating requirements underlying these two main structural features of the IEESA's are apparent in the IEESA tables, even when, as shown in this article, they are in skeleton form. Table 1, an asset account, and table 2, a production account, use modified forms of tables presented in the SEEA.

#### Asset accounts

Integrated economic and environmental accounting requires the measurement of stocks and flows related to assets, which are presented in an asset account. An asset account is like a balance sheet in that it presents stocks, or holdings, at a point in time. (Because an asset account is limited to nonfinancial assets, it does not include liabilities and net worth, as would a balance sheet.) However, an asset account also presents flows related to the assets during a period of time.

The IEESA's provide a complete accounting for the relevant assets—that is, they show both stocks and flows associated with changes in those stocks. Column 1 in table 1 provides for estimates of opening stocks. Columns 2-5 provide for estimates of the flows that represent different kinds of changes in the stock: First, a net total and then three flows: The decrease in stocks due to depreciation (or more formally, in economic accounting terms, consumption of fixed capital), depletion, or degradation; the increase in stocks due to capital formation in the form of new structures and equipment, additions to inventories, additions to the stock of natural and environmental assets; and changes in value due to price changes and to changes in the volume of assets other than those due to economic activity (for example, natural disasters). Column 6 provides for estimates of closing stocks.

Table 1 presents the nonfinancial assets that BEA would try to include in IEESA asset accounts. The table's rows generally follow the subcategories of the SNA 1993 and the SEEA, but some of

the subcategories are regrouped to broaden both the production boundary and the definition of assets. Nonfinancial assets are divided into made assets, developed natural assets, and environmen-

tal assets. Made assets, which largely replicate the scope of nonfinancial assets in traditional income and wealth accounts, are subdivided into fixed assets and inventories. Developed natural assets are

### Table 1.—IEESA Asset Account, 1987

[Billions of dollars]

This table can serve as an inventory of the estimates currently available for the IEESA's. In decreasing order of quality, the estimates that have been filled in are as follows: For made assets, estimates of fixed reproducible tangible stock and inventories, from BEA's national income and product accounts or based on them, and pollution abatement stock, from BEA estimates (rows 1–21); for subsoil assets, the highs and lows of the range based on alternative valuation methods, from the companion article (rows 36–41); and best-available, or rough-order-of-magnitude, estimates for some other developed natural assets (selected rows 23–35 and 42–47) and some environmental assets (selected rows 48–55) prepared by BEA based on a wide range of source data described in this article. The "n.a."—not available—outline represent a recent the conditions. entries represent a research agenda.

				Chang	 је		
	Row	Opening stocks	Total, net (3+4+5)	Depreciation, depletion, degradation	Capital formation	Revaluation and other changes	Closing stocks (1+2)
		(1)	(2)	(3)	(4)	(5)	(6)
PRODUCED ASSETS							
Made assets	1	11,565.9	667.4	-607.9	905.8	369.4	12,233.3
Fixed assets Residential structures and equipment, private and government Fixed nonresidential structures and equipment, private and government Natural resource related Environmental management Conservation and development Water supply facilities Pollution abatement and control Sanitary services Air pollution abatement and control Water pollution abatement and control Other	10 11	10,535.2 4,001.6 6,533.6 503.7 241.3 152.7 88.5 262.4 172.9 45.3 44.2 6,029.9	608.2 318.1 290.1 8.4 3.6 4.8 14.7 12.8 6 1.3 267.0	-607.9 -109.8 -498.1 -19.2 -7.0 -4.4 -2.5 -12.2 -5.6 -4.1 -2.5 -478.9	875.8 230.5 645.3 30.3 10.6 5.3 5.3 19.7 13.7 3.5 2.6 615.0	340.2 197.4 142.9 12.0 4.7 2.7 2.0 7.3 4.8 1.3 1.2 130.9	11,143.4 4,319.7 6,823.7 526.8 249.6 156.4 93.3 277.1 185.8 45.9 45.5 6,296.9
Inventories <sup>1</sup> Government Nonfarm Farm (harvested crops, and livestock other than cattle and calves) Corn Soybeans All wheat Other	14 15 16 17 18 19 20 21	1,030.7 184.9 797.3 48.5 10.2 5.0 2.6 30.7	59.3 6.8 62.4 -9.9 .3 1 0		30.1 2.9 32.7 -5.5 -1.1 -1.0 2 -3.2	29.2 3.8 29.7 4.4 1.4 9 .9	1,090.0 191.7 859.7 38.6 10.5 4.9 2.6 20.6
Developed natural assets	22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cultivated biological resources Cultivated fixed natural growth assets Livestock for breeding, dairy, draught, etc Cattle Fish stock Vineyards, orchards Trees on timberland Work-in-progress on natural growth products Livestock raised for slaughter Cattle Fish stock Calves Crops and other produced plants, not yet harvested	24 25 26 27 28 29 30	n.a. n.a. 12.9 n.a. 2.0 288.8 n.a. n.a. 24.1 n.a. 5.0 1.8	n.a. n.a. 2.0 n.a. 2 47.0 n.a. 7.5 n.a. 9	n.a. n.a. n.a. n.a. n.a. -6.9	n.a. n.a. n.a. 0 9.0 n.a. n.a. 0 n.a.	n.a. .2 44.9 n.a. n.a. 7.5 n.a.	n.a. n.a. n.a. 14.9 n.a. 2.2 335.7 n.a. n.a. 5.9 2.1
Proved subsoil assets <sup>2</sup> Oil (including natural gas liquids) Gas (including natural gas liquids) Coal Metals Other minerals	36 37 38 39 40 41	270.0 ↔ 1066.9 58.2 ↔ 325.9 42.7 ↔ 259.3 140.7 ↔ 207.7 (*) ↔ 215.3 28.4 ↔ 58.7	$\begin{array}{c} 57.8 \leftrightarrow -116.6 \\ -22.5 \leftrightarrow -84.7 \\ 6.6 \leftrightarrow -57.2 \\ 2.2 \leftrightarrow -3.4 \\ 67.2 \leftrightarrow 29.5 \\ 4.3 \leftrightarrow8 \end{array}$	-16.7 ↔ -61.6 -5.1 ↔ -30.6 -5.6 ↔ -20.3 -5.4 ↔ -7.6 2 ↔ -2.2 4 ↔9	16.6 ↔ 64.6 5.8 ↔ 34.2 4.1 ↔ 14.9 4.4 ↔ 6.3 2.2 ↔ 9.2 .1 ↔ 0	$\begin{array}{c} 58 \leftrightarrow -119.6 \\ -23.1 \leftrightarrow -88.3 \\ 8.1 \leftrightarrow -51.8 \\ 3.2 \leftrightarrow -2.1 \\ 65.2 \leftrightarrow 22.5 \\ 4.6 \leftrightarrow .1 \end{array}$	299.4 ↔ 950.3 35.7 ↔ 241.2 49.4 ↔ 202.2 143.0 ↔ 204.2 38.5 ↔ 244.8 32.8 ↔ 57.9
Developed land  Land underlying structures (private)  Agricultural land (excluding vineyards, orchards)  Soil  Recreational land and water (public)  Forests and other wooded land	43 44 45 46	n.a. 4,053.3 441.3 n.a. n.a. 285.8	n.a. 253.0 42.4 n.a. n.a. 28.8	n.a. n.a. n.a. 5 9 n.a.	n.a. n.a. -2.8 n.a. .9 6	n.a. n.a.	n.a. 4,306.3 483.7 n.a. n.a. 314.6
NONPRODUCED/ENVIRONMENTAL ASSETS							
Uncultivated biological resources  Wild fish Timber and other plants of uncultivated forests Other uncultivated biological resources Unproved subsoil assets Undeveloped land Water (economic effects of changes in the stock) Air (economic effects of changes in the stock)	51 52 53 54	n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. -19.9 -38.7 -27.1	n.a. n.a. n.a. n.a. 19.9 38.7 27.1	n.a. n.a. n.a. n.a. n.a.	n.a. n.a.

n.a. Not available.

\* The calculated value of the entry was negative.

1. The estimate for inventories differs from the NIPA estimate by the amount of government inventories added and cattle and calves shown separately. In full implementation of the IEESA account, farm inventories would include

only harvested crops.

2. The estimates in all columns result from the valuation method (see text for further discussion of the alternative methods) that produces the low and high estimates of opening stocks.

NOTE.-Leaders indicate an entry is not applicable.

subdivided into cultivated biological resources, proved subsoil assets, and developed land. Environmental assets are subdivided into uncultivated biological resources, unproved subsoil assets, undeveloped land, water, and air (the last two in terms of the economic effects of changes in the stock).

Made and developed natural assets.—To better highlight the interaction of the economy and the environment, table 1 provides more detail on natural resource and environmentally related produced assets than the traditional income and wealth accounts. Within made assets, nonresidential fixed capital is disaggregated into environmental management (conservation and development, and water supply) and waste-management projects (sanitary services, air and water pollution abatement and control). Detail is also provided on farm inventories of finished goods.

Within cultivated biological resources, table 1 provides detail beyond that contained in the traditional accounts, such as cultivated fixed natural growth assets (for example, livestock), and categories not included in the traditional accounts (for example, trees on timberland).

The treatment of proved subsoil assets and cultivated land in table 1 differs from the SEEA treatment. Proved reserves are generally defined as those reserves that are proved to a high degree of certainty—by test wells or other test data—and are recoverable under current economic conditions and with current technology. In the SEEA, they are classified as nonproduced assets. In table 1, these assets, along with cultivated natural growth assets, are included in the category "developed natural assets." As will be illustrated in the production accounts, capital formation that adds to the stock of these assets—both by bringing undeveloped or uncultivated assets into the category of developed natural assets and by adding to their value within that category—is treated in a manner similar to capital formation that adds to the stock of structures and

This treatment was adopted because it is difficult to rationalize describing proved reserves and cultivated land as "nonproduced" natural assets when expenditures are required to prove or develop them. Agricultural land, for example, must be "produced" in that expenditures must be undertaken to convert uncultivated land areas into commercially valuable farmland, which yields a return over a number of years. Wetland areas, if they are to become farmland, must be drained and graded and vegetation cleared.

Unproved mineral reserves also require expenditures for test wells, engineering studies, and other exploration and development investments before they are recorded as proved reserves.

Similar treatments of these developed natural assets and made assets facilitate consistent treatment of capital formation of natural assets and more conventional capital formation, such as investment in structures and equipment. Under this treatment, as mineral reserves, for example, are proved, the total value of the produced assets—structures and equipment as well as the proved reserve's value—is included as capital formation. Similarly, as oilfield machinery is depreciated, proved reserves associated with the machinery are depleted.

The other major difference between developed assets in table 1 and in the comparable SEEA presentation is in the treatment of soil. In the SEEA, soil—that is, productive soil on agricultural land—is treated as separate from agricultural land. In table 1, soil is a subcategory of agricultural land because the value of agricultural land is inseparable from the value of the soil. Available estimates suggest that the effect of soil erosion, or depletion, on agricultural productivity and land values in the United States is quite small. Nevertheless, though soil is not treated separately, it is shown separately because its erosion has a significant effect on environmental quality through its effect on water quality.

Environmental assets.—This grouping includes natural assets with significant economic value that differ from developed natural assets in that they are generally used as raw inputs into production in their natural state, either as intermediate products or as investments. For example, uncultivated biological resources, such as tuna harvested from the ocean, are included as environmental assets, whereas cultivated biological resources, such as rockfish raised on a fish farm, are included in developed assets. Other categories in environmental assets are uncultivated land, unproved subsoil assets, water, and air.

The inclusion of unproved subsoil assets broadens the definition of subsoil assets to include reserves that, though unproved, have an economic value over and above that of other undeveloped land because of their location or geologic characteristics. As capital expenditures are made to "prove" these properties, they move from non-produced to produced assets. This broader definition of subsoil resources will facilitate longer term planning and analysis of the use of mineral resources. The stock of proved reserves—like the

stock of drill presses—can be expanded by additional investment; hence, firms will keep on hand the stock of reserves dictated by current market prices, finding costs, and interest rates. Thus, complete analysis of mineral resources requires consideration of unproved, as well as of proved, reserves.

In a distinction similar to that between proved and unproved subsoil assets, cultivated land—such as agricultural land, parkland, and land underlying buildings—is included in developed natural assets, whereas uncultivated land—such as wetlands and forestland (not included as timberland)—is included in environmental assets. The agricultural land must be developed before it can be used as farmland, whereas wetlands are used—for example, for their disposal services—in their natural state by the economy. Water, which is subdivided by type, and air also provide services to the economy in the form of recreational and waste disposal services.

Although these environmental assets differ from made and developed natural assets, investments that add to the stock of these assets, as noted below in the production accounts, are treated symmetrically with investments that add to the stock of structures and equipment and of developed assets. These investments, for example, include pollution abatement and control to improve the quality and waste disposal capacity of the air and water, or at least to offset the degradation/depletion (which is also recorded in the production account) occurring in the current period. These investments represent a decision by the economy to devote its resources to investments that improve air and water quality, rather than investments in structures and equipment, and investments that add to the stock of clean air and water should be counted just as investments that add to the stock of made and developed assets are counted.

Estimates: Coverage, sources, and methods.—The estimates recorded for 1987 in table 1 should be regarded as rough-order-of-magnitude, or best-available, estimates. (The estimates are for 1987 because that is the last year for which data from the quinquennial economic census—used in a number of cases as a benchmark from which to estimate forward and backward—are available.) In most cases, only one estimate, rather than a range, is available. Many of the table's cells do not contain estimates, and the quality of the estimates varies greatly. In general, the quality and availability of the estimates declines as one moves down the rows from produced to nonpro-

duced assets, reflecting the increasing conceptual and empirical difficulties in producing such estimates. The estimates may be best regarded as a measure of the work to be undertaken; they are presented here to serve as a road map for areas in which source data and estimating methods must be developed or improved.

Within made assets, the estimates of nonresidential stocks of pollution abatement (PA) structures and equipment are constructed using the same perpetual inventory techniques used to produce BEA's exiting capital stock estimates (see the box on page 44). These stock estimates capture nonresidential investments for PA that are readily identifiable. When companies and plants change their production processes (or equipment) to embody PA features, the PA portions of these investments are included to the extent they can be identified; however, identification is difficult, and understatement of PA stocks can occur. Estimates of government inventories are from unpublished NIPA data. For inventories owned by the Federal Government, the estimates are based on information on inventories from Federal agencies. For State and local governments, the estimates are based on the level of their purchases of nondurable goods; it is assumed that they hold 1 month of these purchases in inventories. The farm inventories of finished goods for agriculture are extensions of the existing inventory data in the NIPA's (following the IEESA, crops not yet harvested are shown as work-in-progress). Stock estimates for several components that would be of interest in the household sector, such as PA equipment in consumer durables and residential capital (for example, PA equipment installed in cars and septic systems in homes), are not available.

Within developed natural assets, most of the estimates are an extension of the existing national accounts data. The existing accounts include estimates for livestock only, with no split between those raised for breeding, dairy, or draft (cultivated fixed natural growth assets) and those raised for slaughter (work in progress on natural growth products). In table 1, these splits were made using assumptions based on data from the U.S. Department of Agriculture (USDA). The estimates of the value of vineyards and orchards are based on Federal Reserve Board estimates of the value of agricultural land and estimates of the acres of land in vineyards and orchards from the Bureau of the Census. Estimates of the value of fish stocks or of changes in these stocks are not yet available (and are in phase II of BEA's plan).

The values of trees on timberland were estimated based on stumpage value estimates provided by the U.S. Forest Service's Pacific Northwest Research Station. The stumpage value estimates are based on the concept of net rent to the timber stand—as distinct from the land the forest sits upon—and are derived mainly from private market data on payments for logging rights. As such, they should correspond to the present discounted value of the timber sales from the tract less the costs of logging, access, transportation, and processing. All timber on timberland in the

United States—public and private—is included in this category. Timber on other forestland is included in nonproduced/environmental assets. This somewhat arbitrary distinction is made partly on conceptual grounds and partly on the availability of source data. All timber in the national forests is in a sense managed, although depending on the forest, management ranges from active, such as planting, to relatively passive, such as self-seeding, fire control, and rotational harvests. Practically, no data are available for the exact definition of "cultivated timber tracts."

# Stock of Plant and Equipment for Air and Water Pollution Abatement in the United States, 1980-91

This box presents estimates of the gross and net stocks of plant and equipment (P&E) for air and water pollution abatement (PA) in the United States during 1980–91. Gross and net stocks of PA P&E help to protect air and water from degradation by stationary and point industrial sources of pollutant emissions. 1

In 1991, the gross stock of air and water PA P&E was about \$183.5 billion (table A).<sup>2</sup> In constant (1987) dollars, the gross stock was \$165.0 billion in 1991, about 2.0 percent of the real gross stock of all fixed nonresidential nonfarm business capital. Between 1980 and 1991, the real gross stock of air and water PA P&E grew at an annual rate of 2.6 percent. Growth in nonmanufacturing stocks outpaced that in manufacturing stocks, mainly reflecting PA P&E spending by electric utilities. The real net stock of air and water PA P&E—that is, after subtracting depreciation—was \$91.3 billion in 1991, up from \$85.8 billion in 1980.

The PA P&E stock estimates are useful when studying market production and economic well-being. They are helpful in determining how pollution abatement spending affects prices, total capital costs, and the profitability of capital. They are also helpful in constructing rough measures of the value of the degradation in air and water quality that has been avoided through pollution abatement.<sup>3</sup>

The 1980–91 PA P&E estimates were prepared by the perpetual inventory method: Past PA P&E flows (capital spending) were cumulated and discards deducted, in accordance with lifespans of capital goods, to arrive at gross stocks of PA P&E. Net stocks were calculated by subtracting accumulated depreciation from gross stocks. Gross and net stock estimates for 1980–91 are valued at constant and at current cost—that is, using 1987 prices (for constant cost) and replacement or current-year prices (for current cost).

Data on an establishment basis for manufacturing PA P&E spending are mainly from the Pollution Abatement Costs and Expenditures (PACE) Survey by the Bureau of the Census. Data for electric util-

ities are mainly from the Pollution Abatement (PA) Supplement to the Census Bureau's pre survey; the PA Supplement reports PA PRE spending for three industries—electric utilities, petroleum, and mining. The PA Supplement reports PA PRE on a company basis, but for electric utilities (unlike for petroleum and mining), such data approximate an establishment basis. The PA PRE spending estimates for mining and for nonmanufacturing except mining and electric utilities are prepared by indirect methods; a variety of data sources are used, including the PA Supplement, an environmental protection expenditures survey by the American Petroleum Institute, and the Census of Mineral Industries.

Table A.—Gross and Net Stocks of Air and Water Pollution Abatement Plant and Equipment in Nonfarm Business, by Major Industry Group, Current-Cost and Constant-Cost Valuations, 1980–91

	1	Gro	ss stock	(S		Net stocks					
	All non-	Ма	nufactur	ing	Non-	All non-	Ma	nufactur	ing	Non-	
	farm indus- tries	Total	Dura- bles	Non- dura- bles	manu- factur- ing	farm indus- tries	Total	Dura- bles	Non- dura- bles	manu- factur- ing	
		Billions of current dollars									
1980 1981 1982 1983 1984 1986 1987 1988 1989 1989	103.43 118.66 129.00 135.72 142.68 147.25 151.04 157.59 165.04 170.82 176.91 183.50	58.78 66.31 70.16 71.37 72.85 73.83 74.05 75.59 77.73 79.69 82.83 87.02	24.55 28.04 29.72 30.25 31.05 31.70 31.96 32.56 33.26 33.83 34.28 34.84	34.24 38.27 40.43 41.12 41.80 42.14 42.08 43.03 44.48 45.86 48.55 52.18	44.65 52.35 58.84 64.35 69.83 73.41 77.00 82.00 87.30 91.13 94.07 96.48	71.14 79.54 84.46 86.43 88.47 89.05 89.49 91.38 93.86 95.67 98.19	37.65 40.94 41.76 40.67 39.81 39.07 38.24 38.15 38.65 39.54 41.75 45.17	15.94 17.56 17.80 17.80 16.86 16.60 16.26 16.07 15.97 16.07 16.25	21.71 23.39 23.95 23.48 22.95 22.47 21.99 22.08 22.68 23.47 25.49 28.46	33.49 38.60 42.70 45.75 48.66 49.97 51.24 53.23 55.21 56.13 56.44 56.40	
			E	Billions o	of consta	nt (1987)	dollars				
1980 1981 1982 1983 1984 1985 1986 1988 1988 1989	124.67 132.26 138.61 142.56 146.66 149.58 152.08 154.47 155.86 157.52 161.03 164.97	71.13 73.56 74.96 74.97 74.94 74.81 74.53 74.36 73.93 74.05 75.76 78.36	29.55 30.91 31.59 31.67 31.86 32.07 32.16 32.04 31.62 31.42 31.31 31.37	41.57 42.66 43.36 43.30 43.08 42.74 42.37 42.32 42.31 42.63 44.45 47.00	53.54 58.70 63.66 67.58 71.72 74.77 77.55 80.11 81.93 83.48 85.27 86.60	85.79 88.84 90.92 90.85 90.98 90.52 90.12 88.55 88.16 89.36 91.31	45.64 45.54 44.71 42.79 41.00 39.62 38.50 37.53 36.76 36.75 38.20 40.69	19.22 19.38 18.95 18.03 17.32 16.81 16.36 15.81 15.19 14.93 14.86 15.05	26.42 26.15 25.76 24.76 23.68 22.81 22.14 21.71 21.57 21.82 23.35 25.64	40.16 43.31 46.22 48.06 49.98 50.91 51.61 52.00 51.80 51.40 51.15 50.63	

<sup>1.</sup> For air PA, the Clean Air Act classifies the sources of pollutants as mobile (for example, automobiles) or stationary (for example, factories). For water PA, the Federal Water Pollution Control Act classifies sources of pollutants as point (for example, factories) or nonpoint (for example, highway construction projects).

<sup>2.</sup> The stock estimates in table A are part of a new establishment-based series for 1960 forward. Bea is planning a Survey of Current Business article for later this year to present such PA P&E stock estimates for selected industries and to present their related capital flows through 1992. The new stock series replaces a series prepared on a company (or enterprise) basis.

<sup>3.</sup> Stocks other than for PA P&E also protect air and water. Examples include stocks of PA devices and systems on mobile (for example, motor vehicles) and nonindustrial pollutant sources (for example, public sewer systems and septic systems), as well as PA features of solid waste management systems. Estimates for these kinds of stocks are not available.

For proved subsoil assets, the estimates shown are the highs and lows of ranges presented, along with a description of the sources and methods used to prepare them, in the companion article beginning on page 50. The estimates represent the range of differences associated with common methods for valuing nonrenewable natural resources.

The estimates within the category "developed land" are of uneven quality. The estimates of the value of agricultural land are relatively good and are based on USDA estimates of farm real estate values less BEA estimates of the value of farm structures. Soil estimates, from the USDA, reflect the annual effect of soil depletion in terms of extra fertilizer costs and reduced productivity. The estimates of residential land, included in table 1 as part of land underlying structures, also are of reasonable quality. The estimates of the other private land underlying structures are of more uncertain quality. The Federal Reserve Board produces these estimates of land values by taking estimates of real estate values from a variety of sources and subtracting BEA's estimates of the value of nonresidential structures. The Federal Reserve's estimates of real estate values are based, in part, on less than comprehensive price indexes; they do not, for example, appear to cover adequately the value of mineral tracts, timberland, or industrial buildings and land. BEA's estimates of nonresidential structures are based on perpetual inventory methods—with assumed depreciation schedules and replacementcost indexes-and may therefore differ from the current market value of the structures included in the real estate estimates. Although over longer periods of time the perpetual inventory estimates are of good quality, during periods of declining or rapidly increasing real estate values, they may produce unreasonable results. Also, to the extent that the value of natural resource assets are not included in the real estate price indexes, the overall value of developed land will be over- or under-stated according to the path of natural resource prices relative to commercial and other land values.

The SEEA recommends that national parks be classified as uncultivated land because their protection, and not their use, is the main function of governmental regulation. However, because these parks are extensively maintained, improved upon, and used by consumers for recreation, they are included in recreational land in table 1. The estimate of capital formation in recreational land is based on Federal Government mainte-

nance and repair expenditures for parks; State and local expenditures are not available. It is assumed that these expenditures exactly offset the degradation/depletion of recreational land; in the case of recreational land, the only estimates available were of maintenance and repair expenditures. This assumption is made only so that both investment and degradation/depletion estimates are illustrated by the table and not to imply any judgment about the true value of degradation/depletion. (Phase II and III of BEA's work plan, described in the next section, includes work to build on the damage assessment and recreational valuation literature to construct estimates of the market value of recreational and environmental amenities.)

For environmental assets, the estimates are more uncertain than even the most uncertain estimates for developed land and proved reserves of subsoil assets. Indeed, most of this section of the table, especially that for renewable natural resources, is shown with "n.a." for "not available." No value is available for the stock of undeveloped land and its associated ecosystems, for unproved subsoil assets, and for uncultivated biological resources (wild animals and fish, plants, and forests).

Compared with the accounting for proved reserves of nonrenewable resources, where the economic literature extends back over 50 years, valuation methods and concepts for many of the renewable resources are less well developed. Renewable natural resources are inherently more difficult to value than nonrenewable natural resources for several reasons: Renewable resources, such as stocks or schools of wild fish, often have a commercial or production value as well as an amenity or a recreational value; often, ownership rights cannot be established, and they cannot be sold; and they *are* able to regenerate, so their use does not necessarily result in a net reduction in either their yield or the value of their stock.

These difficulties notwithstanding, there has been rapid progress in environmental-benefit valuation for renewable natural resources in recent years as economists have tried to keep pace with regulatory, legal, and policy needs for environmental damage and impact measures. Further work by BEA to translate these new concepts and measures into a consistent national framework would need to rely heavily on the expertise of other units within the U.S. Government—for example, the National Oceanic and Atmospheric Administration, the Environmental Protection Agency, USDA, and the Department of Interior.

The SEEA does not recommend that the stock of air—which is truly a global common—or water be valued; instead, it recommends that valuation be limited to changes in these assets—their degradation and investments in their restoration. For these assets, table 1 includes only aggregate values for the degradation of air and water and for expenditures to restore them or to prevent their degradation.

The estimates in table 1 for degradation of air and water quality—as well as for undeveloped land—are simply place markers that assume that maintenance exactly offsets degradation: They are aggregate estimates of the total costs of pollution of these media. The estimates for air, water, and undeveloped land pollution are estimates, from the Environmental Protection Agency, of the direct costs of public and private pollution control activities in the United States. Estimates of air pollution include the annualized costs of air pollution and radiation. Water pollution estimates are the annualized costs of maintaining water quality, including drinking water. timates of undeveloped land pollution are the annualized costs associated with Superfund, toxic chemicals, and pesticides. The estimates of costs to restore or prevent the degradation of the environment (which, as noted earlier, are treated as capital formation in that they offset degradation and depletion of air, water, and undeveloped land) are based on current PAC expenditures and the flow of services from the stock of PA equipment and structures (the estimated return on the net stock plus depreciation). these direct PAC costs differ from the environment cleanup and waste disposal service costs discussed later in the article. These costs are indirect costs imposed by pollution in the form of health costs, higher maintenance and repair expenditures, or longer trips to reach clean recreational sites.)

### Production accounts

The next step in integrating economic and environmental accounting is to combine the appropriate flows from the asset account with the flows in a production account. With this integration, the production account explicitly includes the use of natural resources and environmental services in production through entries for depletion and degradation, and it explicitly includes the additions to the stock of natural and environmental assets through entries for investments that add to stocks of developed natural resources or that restore stocks of environmental assets.

Table 2 combines features of the supply and use tables in the SNA 1993. The table has four quadrants (one empty, except for a total), which are separated by double lines; a total column at the far right; and a total row at the bottom. The left and right upper quadrants show the use of goods and services (commodities) named at the beginning of the rows, summing to total uses as measured by total commodity output. The left-hand upper and lower quadrants show the use of intermediate inputs and factors of production by the industries named at the top of each column, summing to total supply as measured by total output.

A more typical supply and use table would show substantial industry and commodity detail—often a hundred of more industries and commodities. For the purposes at hand, this detail has been collapsed into an "other industries" column (column 3) and "Other" rows (rows 6 and 13). Detail is provided where it is especially relevant to the analysis of the environment. Such a table provides a bird's-eye view of production, income, and consumption, as highlighted in the paragraphs that follow.

Columns 1–4 in the upper left quadrant record the use of commodities by domestic industries in the *production* of other commodities—that is, intermediate use. Columns 5–9 record the use of commodities across the final demand categories that make up gross domestic product, including final *consumption* by households and government. Column 7 records the estimates in the "capital formation" column from table 1. (The made assets are recorded in rows 1–13, the developed natural and environmental assets in rows 14–24.)

In the left quadrants, rows 11–13 show the use of other commodities (that is, other than assets) as intermediate inputs. These commodities consist of expenditures for environmental cleanup and waste disposal services (row 12) and "other" (row 13). Total intermediate inputs used by industries are in row 25. Rows 26-41 record value added, or income. Rows 26-28 record the value added in the form of compensation of employees, indirect business taxes, and corporate profits and other property income. Rows 29-32 record, from table 1, the use of made fixed assets, including the depreciation of structures and equipment used in environmental management (row 30) and in PAC (row 31). Rows 33-41 record the use of fixed natural and environmental assets, with depletion and degradation of each of the eight categories of assets shown separately.

The estimates presented in table 2 are taken from table 1. As is indicated by the "n.a."not available—in the table, many valuation and measurement issues remain before an IEESA production account can be completed. work toward filling in the estimates would proceed in tandem with work on modernizing BEA's national accounts in line with the SNA (see the next section). For example, treating expenditures on government structures, equipment, and

inventories as capital formation implements a feature of the sna. In the table, a "Z" indicates the estimates that would reflect both work toward the IEESA's and SNA-related changes.

In addition to a production account such as table 2, the SEEA calls for parallel quantity tables. Further, because many environmental issues have their primary impact on specific regions or industries, the extension of the integrated national accounts aggregates within BEA's regional

Table 2.—IEESA Production Account, 1987 [Billions of dollars]

				Industries				Final uses (	GDP)			
	Row	Agricul- ture, for- estry, and fish- eries	Mining, utilities, water, and san- itary services	Other industries	Total	Final cor House- hold	Govern- ment	Gross domestic capital formation	Exports	Imports	GDP (5+6+7+ 8-9)	Total com- modity output (4+10)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
COMMODITIES			! : !									
Assets Fixed assets Environmental management Pollution abatement and control Other Inventories Government Nonfarm Farm Other Environmental cleanup and waste disposal services Other  Natural and environmental assets Fixed Cultivated biological resources: Natural growth Proved subsoil assets Developed land Uncultivated biological resources: Natural growth Unproved subsoil assets Undeveloped land Water Air Work-in-progress inventories (natural growth products)  Total intermediate inputs	1 2 3 3 4 4 5 6 6 7 7 8 8 9 9 10 11 11 12 13 13 14 15 16 16 17 18 19 9 20 22 23 24 25	(#)	(#) n.a. n.a.	(#) n.a. n.a.	(#)	(#) n.a. n.a.	(#) n.a. n.a.	905.8 905.8 905.8 10.6 19.7 845.5 30.1 2.9 32.7 -5.5 	(#) n.a. n.a.	(#) n.a. n.a.	<b>建</b> 电电压电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻电阻	
VALUE ADDED  Compensation of employees	26 27 28	(#) (#) (#)	(#) (#) (#)	(#) (#) (#)	(#) (#) (#)							(#) (#) (#)
Depreciation of fixed made assets: Structures and equipment Environmental management Pollution abatement and control Other	29 30 31 32	<b>n.a.</b> n.a. n.a. n.a.	<b>n.a.</b> n.a. n.a. n.a.	<b>n.a.</b> n.a. n.a. n.a.	- <b>607.9</b> -7.0 -12.2 -588.7							(#) (#) (#) (#)
Depletion and degradation of fixed natural and environmental assets Growth products: Fixed Proved subsoil assets Developed land Uncuttivated biological resources Unproved subsoil assets Undeveloped land Water Air  Gross value added (GDP) (rows 26+27+28+29+33) Depreciation, depletion, and degradation (rows 29+33) Net value added (MDP) (rows 42-43)	33 34 35 36 37 38 39 40 41 42 43 44	n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a.	n.a. n.a. -16.7 ↔ -61.6 n.a. n.a. -19.9 -38.7 -27.1 n.a. n.a.						(#)	(#) (#) (#) (#) (#) (#) (#) (#) (#) (#)
TOTAL INDUSTRY OUTPUT	45	(#)	(#)	(#)	(#)	(#)	(#)	(#)	(#)	(#)	(#)	(#)

NOTE.—Leaders indicate that an entry is not applicable. GDP Gross domestic product

GDP Gross domestic product
NDP Net domestic product

<sup>#</sup> These estimates will depend on the integration of the System of National Accounts and the System of Environmental and Economic Accounting as part of the overall modernization of BEA's economic accounts.

and input-output programs is an important extension.

# Uses of the new accounts

Integrated economic and environmental accounts are the subject of intense interest, and expectations may differ from actual results. Among some observers, especially those extrapolating from studies conducted in resource-dependent developing economies, there is an expectation that such accounts will show that U.S. economic growth as currently measured is not sustainable, because the stocks of natural and environmental resources that ultimately determine economic growth are being run down. This expectation may well stem from focusing on depletion and degradation to the exclusion of additions.

The IEESA's will help to identify the use of the various natural and environmental resources. A priori, however, it is difficult to say whether there will be a net reduction or increase in their value overall. For example, while it is almost certainly true that the economic value of the stocks of some assets, such as bluefin tuna, are declining, the stocks of other environmental assets, such as timber stocks, have been increasing as planting and growth have more than offset harvests, fire, and land conversions. Similarly, while losses of wetlands from development continue to outnumber gains from wetland restorations, increasing rates of investments in cleaner air and water since the mid-1970's appear to have resulted in net improvements in air and water quality; many of the measures of air and water quality, such as the ambient concentrations of air and water pollutants, have shown improvement.

Because of these offsetting changes, it is conceivable that when all entries in table 2—or if not all, at least enough more than at present to avoid risks of conclusions based on partial results—have been filled in, the table will show that IEESA NDP differs little from traditional NDP.<sup>7</sup> Nevertheless, the information about specific natural resources and specific industries, products, or regions will provide valuable insight about

sustainability and the implications of different regulations, taxes, and consumption patterns. In the United States, such information should prove useful in a wide range of policy issues.

Economic accounts do not provide normative data. They either report market values or proxies for market values. If a problem with property rights leads to the undervaluation and overexploitation of a resource, a set of integrated economic accounts will not reveal the "right" price or the "correct" level of stocks. They will, however, provide the data—for example, about changes in the value of the stocks and the share of income to be attributed to the resource—needed for objective analysis of the problem.

# BEA's Plan for Natural Resource and Environmental Accounting

BEA's plan calls for work on the IEESA's to be undertaken in conjunction with modernizing its economic accounts. BEA's national accounts are now undergoing the first major redesign since the 1950's. The redesign, which will be along the lines of the SNA 1993, will feature an integrated set of current and capital accounts, sector by sector. Fully developed capital accounts, along with balance sheets, are essential for a comprehensive set of economic accounts. The conceptual work on these accounts and the more specialized work on natural resources and the environment will be mutually supporting. Further, to make reasoned policy choices involving trade-offs among kinds of capital, one would want a view of the total capital stock—natural and made—consistently covered and appropriately valued.

BEA has developed a three-phase plan for the IEESA's. With this issue of the SURVEY, BEA has completed the first phase of work.

Phase I: Overall framework and prototype estimates .—The overall IEESA framework is designed to build upon the existing national accounts and is in line with the guidance embodied in the new international SNA about a satellite system and the companion SEEA.

In its initial work, BEA has focused on mineral resources, consisting of oil and gas, coal, metals, and other minerals with a scarcity value. As described in the companion article, the focus, in accordance with SNA recommendations, is on proved reserves, the basis for valuation is market values, and the treatment given mineral resources—which require expenditures to prove and which provide "services" over a long

<sup>7.</sup> There are also conceptual limitations to using NDP as the indicator of sustainable growth. NDP shows only the level of product, which cannot reflect much information about sustainability. The rate of change of NDP over time is more useful, but even this is not a clear indicator, because changes in NDP reflect changes in the rates of consumption, government expenditure, and net exports as well as net capital formation.

A measure that may be more useful as an indicator of sustainable growth is the net savings rate, which is affected only by changes in the rate of investment in, and the consumption of, fixed capital. If the savings rate—adjusted to reflect additions to, and subtractions from, natural as well as produced assets—is positive, then growth can be considered sustainable. (Because this assumes a high degree of substitutability between produced and natural assets, some refer to this concept as "weak sustainability.")

timespan—is similar to the treatment of fixed capital in the existing accounts.

The prototype estimates include stocks and flows in accounts that supplement BEA's national wealth accounts and NIPA's. These prototype estimates provide a comprehensive picture of the stocks of natural assets and the changes in them. They also allow an examination of the practical consequences of several alternative methods of valuing the stock of resources, additions, and depletion. The alternative methods represent the Bureau's technical assessment of the best estimates and framework that are feasible with existing sources and methods.

Phase II: Renewable natural resources.—The plan calls for work to extend the accounts to renewable natural resource assets, such as trees

on timberland, fish stocks, and water resources. Development of these estimates will be more difficult than for mineral resources because they must be based on less refined concepts and less data.

Phase III: Environmental assets.—Building on this work, the plan calls for moving on to issues associated with a broader range of environmental assets, including the economic value of the degradation of clean air and water or the value of recreational assets such as lakes and national forests. Clearly, significant advances will be required in the underlying environmental and economic data, as well as in concepts and methods, and cooperative effort with the scientific, statistical, and economic communities will be needed to produce such estimates.

# Accounting for Mineral Resources: Issues and BEA's Initial Estimates

MONG NATURAL assets, the characteristics  $oldsymbol{q}$  of minerals—oil, gas, coal, and nonfuel minerals—are the most similar to the characteristics of assets included in traditional economic accounting systems. Not surprisingly then, minerals have long been considered as candidates for a treatment that is symmetrical with the treatment given other assets. Such a treatment is at the heart of the integrated economic and environmental satellite accounts (IEESA'S), which are the subject of a companion article, beginning on page 33. Failure to account symmetrically for mineral resources as a form of capital has been blamed both for their over- or under-exploitation and for incomplete analysis and policy decisions in areas relating to productivity and budgeting.

The companion article noted three points of asymmetry between the treatment given assets such as structures and equipment in the traditional economic accounts and the treatment given natural assets. First, in traditional economic accounts, there is no entry for additions to the stock of natural resources parallel to the entry for additions to the stock of structures and equipment. Second, there is no explicit entry for the contribution of natural resources to current production, as measured by gross domestic product (GDP), parallel to the entries that capture the value added of structures and equipment. Finally, there is no entry for the using up of the stock of natural resources parallel to the entry for the depreciation of structures and equipment used to arrive at net domestic product (NDP) which is used by some as a shorthand measure of sustainable product.

This treatment given mineral resources in the traditional economic accounts is anomalous in several respects. First, firms spend large amounts of time and other resources in "proving" mineral reserves, and these reserves, like structures and equipment, yield a flow of services over many years. As firms prove these reserves, they are entered, along with investments in new structures and equipment, in the firms' balance sheets. Additions to these reserves are also recognized by investors and reflected in firms' equity prices. Second, the value added of a resource like coal or

oil is included in GDP even though no explicit entry for its contribution is made: Its value added is in a sense "appropriated" by the other factors of production and is included in the rents, royalties, and profits of the owners of invested capital. Finally, although the traditional economic accounts do not include an entry for depletion of natural resources, firms and investors recognize depletion in assessing the value of firms and the sustainability of their current profit levels.

The treatment of natural resources in the mining industry has long been debated in economics While there is a conceptual case for symmetrical treatment of mineral resources and invested capital, the absence of good market prices to value additions, depletion, and stocks has been a stumbling block. Property rights issues, incomplete information, asymmetry in bargaining, and the structure of payments for mineral rights create a situation in which either there are no observable prices or prices are seriously incomplete or unrepresentative. Partly as a result of this situation, traditional economic accounts have treated the value added of mineral resources as free gifts of nature, making entries neither to the flow accounts for additions to, or depletion of, the stock of these resources nor to the wealth accounts.

The omission of explicit entries for mineral resources has import beyond the economic accounts. The absence of an entry, or market price, for depletion may—in combination with common property rights—mean that the accounts do not identify overexploitation. This possibility is particularly important because a large share of the Nation's mineral resources are on public lands. (However, as the current problems in the New England fisheries suggest, the issue clearly has import for a wide range of other resources.) Such omissions have also been cited as the source of problems in productivity analysis. Despite the inclusion of land, labor, and capital in the most elementary production function used in studying

<sup>1.</sup> Business accounting has also long debated issues in accounting for minerals; further, there was a resurgence in interest after the "energy crisis" in the mid-1970's. Since then, the Financial Accounting Standards Board has issued five new standards to improve accounting for mineral resources.

productivity, measures of natural resources have generally not been available. Finally, the absence of measures of natural resource stocks and stock changes on Federal lands has been cited as contributing to less-than-optimal Federal budgeting decisions.<sup>2</sup>

As previously mentioned, this article is the second of two articles reporting on the IEESA's. It provides initial estimates of the value of additions, depletion, revaluations, and stocks of mineral resources and on the impact such estimates would have on the estimates of the Nation's production, income, and wealth. This article begins with a summary of the major conceptual and methodological issues in accounting for mineral resources. Next, the article describes alternative methods of valuation that can be used to develop IEESA estimates for minerals, and it then presents estimates for oil, gas, coal, metals, and other minerals using these methods. An appendix provides information on data sources and methods. Tables 1-5 appear at the end of the article: Table 1.1-1.6 present estimates of oil-opening stocks, additions, depletion, and the revaluation adjustment—for 1947–91; tables 2.1-2.6 present estimates of gas for 1947-91; tables 3.1–3.4 present estimates of coal for 1958–91; tables 4.1-4.4 present estimates of metals for 1958-91; and tables 5.1-5.4 present estimates of other minerals for 1958-91.

# Conceptual and Methodological Issues

In addressing conceptual and methodological issues for mineral resources, as for natural resources and the environment more broadly, BEA has attempted to follow two principles. First, the treatment in the satellite accounts should be consistent with the principles of economic theory. Second, the satellite accounts should embody some concepts and definitions that differ from those of the existing accounts in order achieve their purpose of showing the interaction of the economy and the environment, but in other respects they should be consistent with the existing accounts. Satellite accounts provide the flexibility to make changes that are useful in analyzing natural resources and long-term economic growth, but consistency with the existing accounts will allow the satellite accounts covering mineral resources to link to, and build upon, the existing economic accounts, including the input-output and regional accounts.

The conceptual and methodological issues discussed in this section can be divided into two main groups. The first group deals with the accounting treatment for mineral resources. The second group deals with valuation.

### Accounting issues

Treatment of additions to reserves.—Symmetrical treatment of proved mineral resources with structures and equipment requires treatment of additions to the stock as capital formation and of deductions as depletion. Capital formation records the initial production of the capital, as well as its addition to the capital stock; depreciation records the reduction in the capital stock associated with its use, as reflected in NDP. Over the life of the asset, depreciation sums to the value of the original investment.

In economic accounting, as in business accounting, what comes off the books must have gone on the books. This business accounting requirement was one of the reasons why estimates of depletion of natural resources have not been included in official estimates of NDP. Beginning in 1942, depletion allowances for minerals and timber were deducted from GDP in the estimates of net national product made by the U.S. Department of Commerce. Discoveries of minerals, however, were not included in capital formation and net product. The depletion allowances were eliminated in 1947 because of this absence of an entry for capital formation.

Despite this accounting requirement for symmetrical treatment of additions and reductions, a number of economists have called for a return to the 1942 treatment—that is, an entry for depletion but not for additions. This position seems to have been based on at least three considerations, each of which is evaluated in the paragraphs that follow.

First, an entry for depletion will respond to at least part of the concern about the treatment of mineral resources in the traditional accounts. If the goal is to produce a measure of NDP that reflects the depletion of mineral resources in GDP, deduction of depletion to arrive at an alternative NDP will provide such a measure. Although it cannot be explicitly identified, as noted previously, the contribution of mineral resources is already included in GDP. Deduction of an estimate of depletion will give a partial measure of sustainability, one that indicates the using up of the existing stock of mineral resources.

What such a partial measure will not do is allow the detailed identification of the contribution

<sup>2.</sup> See, for example, Gavin Wright [35] and Michael J. Boskin, Marc S. Robinson, Terrance O'Reilly, and Praveen Kumar [4].

of the mineral resource to income, production, consumption, or wealth, either in the aggregate or by sector. Nor will it provide a complete measure of sustainability. Without an entry for additions, deduction of depletion alone to calculate an alternative NDP may produce misleading signals regarding the sustainability of a nation's production and wealth. For example, with only depletion accounted for, a nation adding to its stock of reserves-through exploration and development and through improved recovery techniques-at a rate that more than offsets depletion would nonetheless have an alternative NDP lower than the traditional NDP. The lower NDP would suggest that the country was running down its resources and that the current level of production was at the expense of future production, despite the fact that reserves were actually increasing.

Second, estimates of the value of additions to the resource stocks are quite volatile, uncertain, and, at times, large. Volatility in resource prices, changes in mining technology, and uncertainty about the ultimate recoverability from existing reserves all affect the value of mineral reserves. It is not clear, however, that the volatility introduced by such estimates would be any larger than that already observed in investment, particularly inventory investment, the most volatile component of traditional accounts.

Third, probably the most important reason for the lack of enthusiasm for including additions to reserves as capital formation in GDP is that additions to reserves are so different from additions to capital stock. This difference, in combination with the volatility of additions to reserves, would limit the usefulness of accounts for conventional macroeconomic analysis. The inclusion of large additions to mineral resources in GDP, such as those associated with the North Slope in Alaska and the North Sea in Europe, are important additions to a nation's wealth and have a significant impact on economic activity, but the effect differs from that associated with investment in a new factory. Both add to wealth, but for the factors of production involved in building the factory, payments have been made, and the resources are available for current consumption. In contrast, much of the increase in wealth associated with adding proved reserves accrues to mining companies and landowners in the form of increases in land values and equity prices. To make these resources available for current consumption would require the "producers" of the mine or well to sell their product.

Many of the concerns about volatility and the different nature of additions to mineral reserves can be diffused by placing these values in a satellite account that allows integrated analysis of mineral resources outside the main accounts. This inclusion of natural resources in a satellite account allows researchers the flexibility to experiment without impairing the usefulness of the traditional accounts. In addition, within the IEESA's, the effect of volatility in mineral prices is largely confined to the revaluation account and has a limited effect on the estimates of current income, production, and consumption.

Fixed capital or inventory treatment.—Even when economic theorists have thought of natural resources as a type of capital, they have disagreed about whether the resources should be treated as fixed capital or as inventories.3 This disagreement may seem a bit strange because proved mineral reserves seem to fit the classic characteristics of fixed capital: Expenditures of materials and labor are needed to produce a productive asset ("roundabout" production), which yields a stream of product over long periods of time. The rent to owners of fixed assets comprises the reduction in the value of the asset due to its use in the current period (depreciation) and a return equal to what the current value of the asset could earn if invested elsewhere. Inventories, on the other hand, are buffer stocks of inputs and final products that help to smooth production and avoid lost sales. As a rule, inventories are sold within a year or one accounting cycle. Although interest or holding costs are a consideration in determining inventory levels, they are much less important than for fixed capital.

Part of the rationale for treating mineral reserves as inventories may arise from the perception that they differ from fixed capital in that they are a set number of units waiting to be used up in production. However, like the output from a new machine, the number of units extracted from a new field or mine is quite uncertain and varies over time with the path of future demand, changes in technology, prices, costs, and returns on alternative investments. In addition, although a piece of machinery may not appear from the

<sup>3.</sup> Part of the debate over the treatment of minerals as inventories or as fixed capital may reflect the view that depletion should be counted as a reduction in the highly visible GDP measure, rather than in the less well known NDP. If natural resources are treated like fixed capital, the depletion of the resources in the production process would be treated like depreciation. Because NDP is defined as GDP less depreciation, with this treatment any depletion charge would affect NDP but not GDP (as noted earlier, conventional GDP implicitly includes depletion). On the other hand, the change in business inventories is a component of both GDP and NDP. Consequently, some have argued that if depletion were viewed as a net decline in inventories, it would result in a subtraction from both GDP and NDP.

exterior to be used up in production, its parts or service life are most certainly "used up" in production; this "using up" is reflected in the decline in its value, or the depreciation on the equipment.

To emphasize the replaceability of proved reserves, some analysts have chosen to describe these reserves as inventories. This motive notwithstanding, treatment of mineral reserves symmetrically with fixed investment in structures and equipment would serve equally well as a reminder of the "reproducibility" of proved reserves in the IEESA's.

Proved reserves or total resources.—The amount of mineral resources that can be recovered, given current economic conditions, is not certain. Reserves are generally classified by the degree of certainty attached to the estimates. For example, proved petroleum reserves are estimated physical quantities that have been demonstrated by geologic and engineering data to be recoverable under current economic conditions and technology. Reserves whose recovery under current economic conditions is less certain are classified as either "probable" or "possible." Estimates are also available on the total amount of reserves that remain to be discovered—that is, of "undiscovered" reserves. There are a variety of perspectives on which of these measures of reserves should be used in accounting for minerals. Should the accounts be concerned only with "proved" reserves, or should they also account for "probable," "possible," or even "undiscovered" reserves?

Authors who have focused on proved reserves have tended to do so because of the large uncertainty associated with the other measures. As noted in the companion article, BEA ultimately intends to include unproved reserves as part of "nonproduced/environmental" assets, but the mineral reserve estimates presented here are restricted to proved reserves.

One means of dealing with the uncertainty in valuing unproved reserves may be the use of "option" values. Unproved reserves are clearly bought and sold, and the values or options that could be used in these transactions might be used to develop average option values to be used in valuing the entire stock of a nation's reserves. An operational methodology for making such estimates has not yet been identified.

### Valuation issues

The absence of complete data on mineral resource prices has meant that the value and contribution of mineral resources to income, production, consumption, and wealth have usually had to be based on methodologies that produce proxy estimates of their market price. There are two elements to making such estimates. The first is separating the contribution of the resource in the ground—which is implicitly included in the price of a marketed mineral product—from that of other factors of production. The second is determining the appropriate per-unit value for estimating the value of the stock of the resource and the value of changes in the stock, including additions, depletion, and revaluations.

In addition, it is useful to identify several terms at the outset. First, "rent" refers to the concept of the return to factors of production after deduction of variable costs. More empirically, "gross rent" is simply gross revenues less expenditures on intermediate goods and employee compensation. (Rent in these situations is not to be confused with "rental income of persons" found in the national income and product accounts.) Second, "invested capital" refers to the structures and equipment in which the firm or industry has invested.

Identifying the return to the resource.—The price of a unit of the resource—for example, a barrel of oil—reflects, in addition to the cost of goods and services used in its production, a return to labor, a return to invested capital, and a return to the resource. The first step in identifying the value of a barrel in the ground is to determine the rent, in this case the rent to the resource and the capitalized value of investments in mining. In industries such as petroleum mining, good data are generally available on the variable costs, so arriving at gross rent is, at least conceptually, relatively simple. The next step is to determine the share of gross rent that accrues to the invested capital and the share that accrues to the resource.

In theory, the rent to owners of both the invested capital and the oil in the ground should equal the reduction in the value of each asset due to its use in the current period (depreciation and depletion, respectively) plus a return equal to what the current value of the well (the invested capital and the oil in the ground) could earn if invested elsewhere. The desirable way to measure the rent would be to observe market prices for these transactions; however, often there is no transaction, and the observable transactions that

take place are often not representative of the full value of the oil. As a result, the various methods described in the next section use indirect techniques to estimate the market value of the return to invested capital, and they derive the return to the oil in the ground as a residual.

Valuing the resource stock and depletion.—Valuing the stock of a resource and valuing the decline in the stock's value associated with extraction are complicated because the extraction takes place over a long period of time. Unless the price, or value, of that resource rises enough to offset the income that could have been earned on alternative investments (including an inflation premium), resources extracted in the future will be worth less, in real terms, than those extracted today. In theory, the market value of the stock should be equal to the present discounted value of the future stream of rent from the stock, whereas depletion is the decline in the value of the stock associated with extraction in the current period. Translating the current per-unit rent of a resource into a per-unit value appropriate for valuing the stock and depletion requires information about the future path of extraction, prices, and interest rates. Unfortunately, such information is generally not available. In the absence of market prices, estimation of the current value of the resource requires either resort to economic theory, use of a set of explicit assumptions, or empirical estimation.

Empirical estimation of the factors required for computing the present discounted value of the resource is fraught with difficulties, in part because of the volatility of mineral markets. Simplistic assumptions do at least as well as econometric forecasts in tests of their predictive accuracy, and the assumptions are relatively easy to understand.

# Alternative Methods of Valuing Mineral Resources

BEA has prepared estimates using four methods of valuing resource stocks and changes—depletion, additions, and revaluations—in the stocks.<sup>4</sup> These methods rely on estimates of three

variables: (1) The normal return to invested capital, based on some average rate of return to all investment in the economy; (2) the return to capital based on the market value of the capital stock in the oil industry; and (3) the per-unit capital cost of additions to the stock of proved reserves. The use of these variables as described in the following paragraphs represents BEA's assessment of the best estimates given existing source data and frameworks. The accompanying box provides an algebraic description of the methods.

### Current rent estimates

The simplest assumption that can be used is based on Harold Hotelling's observation that in equilibrium, the price of the marginal unit of a nonrenewable natural resource net of extraction costs (the current per-unit rent to the resource) should increase over time at a rate equal to the nominal rate of interest.<sup>5</sup> At any rate of increase in the per-unit rent above (below) the rate of return on alternative investments, entry (exit) and increases (decreases) in the rate of extraction will combine to reestablish the equilibrium rate of increase in the resource rent. If this observation holds, the value of the stock of the resource is independent of when it is extracted and is equal to the current per-unit rent to the resource times the number of units of the resource.

The following two methods assume that over time the rent per unit will increase at the rate of interest; they simply use the current per-unit rent to value the resource and depletion.

The first method, current rent method I, utilizes an estimate of a normal, or average, rate of return to investment to estimate the rent to the associated capital invested in the mining industry and then derives the resource rent as a residual. This method applies this average, economywide rate of return to investment to an estimate of the replacement cost, or market value, of the net stock of associated capital invested in mining and then adds depreciation to estimate a "normal" rent to invested capital. The rate of return used is 6 percent, approximately the 45-year average real rate of return to investment in corporate bonds and equities for the period ending in 1991, which is an estimate of the rate of return available on al-

<sup>4.</sup> Among the methods that have not been used is one suggested by Salah El Serafy. The approach essentially calculates the amount that must be invested in a "sinking fund" to create an income stream sufficient to replace that produced by the natural resource. The approach, although frequently mentioned in the resource accounting literature, is not included largely because it is inconsistent with the concepts embodied in traditional national accounts and the IEESA's. In traditional accounts, the value of an asset is determined by its market price, or proxy thereof. El Serafy's approach, a welfare-oriented measure, is not intended to estimate the market value of the mineral resource.

<sup>5.</sup> In other words, the real price of the resource should increase at the real rate of interest, and there is no need for discounting.

<sup>6.</sup> As discussed later, it may be true that over long periods, the rent per unit for mineral resources—like most tangible assets held for investment purposes—will rise at a rate equal to the nominal discount rate; however, periods of disequilibrium may be quite long. Nevertheless, given the problems in forecasting volatile minerals prices, technology, etc., this simple assumption may yield results as good as or better than other methods.

ternative investments. The steps in estimating the rent to and value of the resource are as follows:

- 1. Gross rent is calculated as total revenue less current operating expenditures. (Current operating expenditures are those associated with bringing the mineral from the deposit to the wellhead or mine gate.)
- 2. The resource rent is obtained by subtracting the rent to capital (both depreciation and a normal rate of return for capital) from the gross rent.
- 3. The per-unit rent to the resource equals the resource rent divided by the physical quantity extracted.

- 4. The value of the resource equals the per-unit rent times the physical quantity of reserves. Additions and depletion are valued at rent per unit times the physical quantities of added and extracted reserves.
- 5. Revaluations—the effect of price changes—are computed as a residual: The value of the resource at the end of the current year less its value at the end of the preceding year, plus depletion during the year, less additions during the year.

The advantage of this method is that it is relatively straightforward and requires few assumptions. The main disadvantage is that an explicit assumption must be made regarding the

# Algebraic Description of the Alternative Methods of Valuing Mineral Resources

Current rent method 1 (Based on average return to capital):

GR = TR - COE

RR = GR - (rNS + DEP)

 $\delta r = RR/QE$ 

 $VR = \delta r(QRES)$ 

 $DEPL = \delta r(QE)$ 

 $VA = \delta r(QADD)$ 

REVAL = VA(t)-VA(t-1)+DEPL-VA

Current rent method 11 (Based on value of capital stock): \*

 $\delta GR = GR/QE$ 

 $V = \delta GR(QRES)$ 

VR = V - NS

 $\delta r = VR/QRES$ 

Net present discounted value: \*

 $\Phi = \sum_{j=1}^{T} \frac{1/T}{(1+i)^{j-1/2}}$ 

 $\delta r = \Phi[(V - NS)/(QRES)]$ 

Replacement cost: \*

bf = [(QE/QRES)/((QE/QRES)+r)]

 $\delta r = bf[(TR - COE)/Q] - (\$ADD/Q)$ 

Transaction price: \*

 $\delta GR = (TV/TQ)$ 

 $\delta r = \delta GR - (NS/QRES)$ 

\* DEPL, VA, REVAL for all methods are computed using the same formulas as presented for current rent method 1.

Definitions:

Aggregate value measures:

TR = total revenue

CO = other extraction expenses, including compensation of employees, materials consumed, and overhead cost allocated to current production

GR = gross rent

RR = resource rent

NS = net stock of capital valued at current replacement cost

TV =value of purchased reserves during the year

V =value of the proved reserves (resource and fixed capital values)

VR =value of the resource stock

VA = value of the annual additions

DEP = depreciation

DEPL = value of the annual depletions

REVAL = the effect of price changes on the value of the stock

\$ADD = the annual exploration and development expenditures for drilling oil and gas wells in fields of proven reserves (including overhead costs allocated to development)

 $\Phi$  = Net discounted present value factor

Quantity measures:

QE = quantity of the resource extracted during the year

QRES = stock of reserves

QADD = Quantity of resources added to reserves during the year (through new discoveries, extensions of existing sites, or revisions in estimated reserves)

TQ = quantity of proved reserves purchased during the year

Per unit measures:

 $\delta GR = \text{gross rent per unit } (GR/Q)$ 

 $\delta r$  = resource rent per unit

Rates and other items:

r = real rate of interest, or discount rate

N = Life span of a resource (e.g., well or mine), R/Q

j = current year

T = life of asset (NIPA convention)

a = reserve decline rate, Q/R

bf = barrel factor

appropriate rate of return. In addition to the conceptual and empirical problems in identifying an appropriate rate, prespecification of a rate does not allow for relatively low or high rates of return in the mining industry due to conditions specific to the industry.

An alternative method, current rent method II, derives resource rent by removing the market value of capital, both physical and capitalized expenditures, from the value of the resource reserve. The steps to deriving the per-unit rent are as follows:

- 1. Gross rent per unit is derived by dividing gross rent by the physical quantity of extraction.
- 2. The total value of the mineral reserve (the resource and the associated invested capital) equals the gross rent per unit times the quantity of reserves.
- 3. The value of the resource equals the total value of reserves less the current replacement value of the net stock of invested capital.
- 4. Resource rent per unit equals the value of the resource divided by the quantity of reserves.

The advantage of this method is that it does not require an explicit assumption about the return to invested capital associated with the resource.

# Present discounted value estimates

If it is assumed that rent to the resource does not rise enough to compensate the owners of the resource for the nominal interest they could earn on alternative investments, then the stream of future rents must be discounted by the difference between the rate of increase in resource rent and the nominal interest rate. As noted previously, with discounting, identical dollar values during different time periods have different present values, so valuation by present discounted values requires—in addition to an assumed discount rate—a number of assumptions about the stream of future rents.

In BEA's implementation of this method, three simplifying assumptions were made so that each cohort of additions to reserves did not have to be tracked separately throughout its economic life. First, extraction resulting from additions to proved reserves was assumed to be constant in each year of a field's life, and depletions were assumed to result equally from all cohorts still in the stock. Second, new reserves were assumed to be extracted at constant rates over the same timeframe used for depreciating wells and mines in

the NIPA's: 16 years until 1972 and 12 years thereafter. Finally, extractions were assumed to occur at midyear and were valued using the per-unit rents described for current rent method II.

Two real rates of discount—3 percent and 10 percent—were chosen to illustrate the effects of a broad range of rates on the values of additions, depletion, and stocks of reserves. Thus, the relatively high and relatively low rates chosen encompass many of the alternatives that have been used in discounting.<sup>7</sup> The 3-percent discount rate has often been used to approximate the rate of time preference. The 10-percent rate has often been used to approximate the long-term real rate of return to business investment.

The steps for estimating the present discounted value estimate of the resource rent per unit are as follows:

- 1. A discount factor was derived using an estimate of the real rate of discount—the nominal interest rate less the rate of increase in the resource rent—and the NIPA estimates of the lifespans of mineshafts and wells.
- 2. The rent per unit equals the discount factor times the gross rent per unit derived from the current rent method that is based on the value of capital stock in the mineral industry.<sup>8</sup>

# Replacement-cost estimates

The replacement-cost method subtracts from gross rent the cost per unit of adding new reserves, thereby identifying the resource rent as a residual. It uses the per-unit cost of proving new reserves to represent invested capital's share of the gross rent. The value of a unit of resource in the ground is estimated; the cost to replace it by investment is subtracted from that in-ground value, and the residual is the resource rent. This method uses current rates of extraction to estimate future production and uses an

<sup>7.</sup> Although these real rates—3 percent and 10 percent—are often used to discount future returns, both are probably high for an appreciating tangible asset for a number of reasons: (1) Mineral prices do rise, at least partly, if not fully offsetting the effect of discounting; (2) as many authors have argued, decisions with intergenerational effects should be valued at lower discount rates than other transactions; and (3) a real rate of 10 percent, which is often cited and has been used by the Office of Management and Budget as an estimate of the real rate of return to private capital, is biased upwards. The 10-percent return is based on estimates of the before-tax return to reproducible capital, which is computed as all property-type income divided by the replacement-cost value of reproducible assets. Some authors have attempted to adjust the return to reflect the fact that property-type income is a return to land and other factors as well as to reproducible capital; nevertheless, to the extent that these other factors are excluded from the denominator, the computed return to capital is too high.

<sup>8.</sup> Because of the simplifying assumptions used, somewhat different discount-extraction factors are applied to stocks and flows; for most years, the differences are very small.

assumed discount rate of 6 percent. Because of the lack of production cost data, transactions data for the sale of reserves, and techniques to estimate those market values for all other minerals, the replacement-cost method is used only for oil and gas. The steps for deriving the per-unit resource rent are as follows:

- The barrel factor—which is used to calculate the value of a barrel of oil in the ground is equal to the depletion rate of the reserves divided by the sum of the real discount rate and the depletion rate.<sup>10</sup>
- 2. The per-unit resource rent is calculated by multiplying the gross rent per unit by the barrel factor and subtracting the per-unit exploration and development cost.

# Transactions-price estimates

When oil and gas firms seek to replace the reserves that have been depleted as a result of their production, they face a "make or buy" decision. They can either make new reserves by financing exploration and development efforts, or they can buy reserves that have already been proved by others. This article refers to the purchase price of proved reserves as a "transactions price" because it represents a price that was paid in an actual transaction. The costs of acquiring new reserves by financing exploration and development efforts are termed "finding costs." In equilibrium, and ignoring the different tax treatment of purchasing and drilling for oil, the finding costs should be equal to the transactions price.

If available, transactions prices are ideal for valuing reserves. As it turns out, such transactions are relatively infrequent because companies generally develop their own reserves. As a result, the few transactions that occur are not easily generalized for estimating the total value of reserves.

The estimates of resource values for oil and natural gas presented here are derived from transactions prices constructed from publicly available data on the activities of large energy-producing firms. The derivation of per-unit resource rent is as follows:

1. The per-unit gross rent for the resource and its associated invested capital is obtained by

- dividing aggregate expenditures for the purchase of the rights to proved reserves by the quantity of purchased reserves.
- 2. The per-unit resource rent equals the perunit gross rent less the per-unit net stock of associated capital invested in the oil and gas industry.

# **Estimates for Mineral Resources**

The value of resource reserves and changes in reserves were estimated for the period 1958–91 for major mineral resources using the four valuation methods just discussed.<sup>11</sup> The minerals valued include the fuels (petroleum, natural gas, coal, and uranium), the metals (iron ore, copper, lead, zinc, gold, silver, and molybdenum), and other minerals (phosphate rock, sulfur, boron, diatomite, gypsum, and potash). Petroleum and gas account for the lion's share of mineral production. The other minerals were selected because, of the minerals that have scarcity value, their value of production was relatively high.

The picture that emerges from the various estimates of the value of U.S. mineral stocks is broadly similar, regardless of which methodology is used:

- The value of additions has tended to exceed depletions; since 1958, the value of the stocks of proved mineral reserves in the aggregate has grown in current dollars, while showing little change in constant (1987) dollars (charts 1 and 2 and table A).
- Changes in the stocks of these productive assets over time have largely reflected changes in their resource rents. Increases in resource rents have been accompanied by greater investment in exploration and enhanced recovery technology, and decreases in rents for some resources have been accompanied by reduced exploration activity and the closing of marginal fields and mines.
- Proved mineral reserves constitute a significant share of the economy's stock of productive resources. Addition of the value of the stock of these mineral resources to the value of structures, equipment, and inventories for 1991 would raise the total by \$471-\$916 billion, or 3–7 percent, depending on the valuation method used.
- The stocks of proved mineral resources are worth much more than the stocks of invested

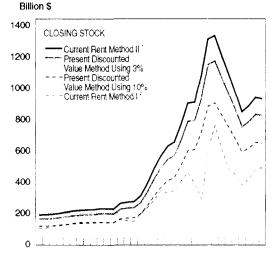
<sup>9.</sup> The method outlined here is based on the approach used by M.A. Adelman, which has been modified to estimate the resource rent and hence the depletion and the value of oil and gas resources.

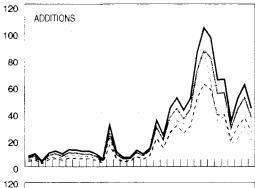
<sup>10.</sup> Note that if the resource appreciates at a rate equal to the nominal interest rate, the real discount rate (nominal rate less the increase in prices) is zero, and the barrel factor has a value of one; in this case, the current rent is used to value reserves and depletion.

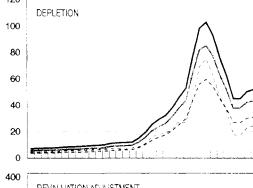
<sup>11.</sup> The transactions-price and replacement-cost methods are used for the period 1947–91 and only for oil and gas.

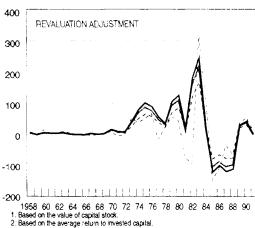
# CHART 1

# Stocks and Changes in the Stocks of Subsoil Assets, Current Dollars









U.S. Department of Commerce, Bureau of Economic Analysis

- structures and equipment associated with the resources. In 1991, the value of the stock of subsoil assets was 2 to 4 times as large as the value of the associated stock of invested structures and equipment and inventories.
- Valuing the effect of depletion and additions, as well as including the value of resource stocks, provides a significantly different picture of returns. Compared with rates of return calculated using income and capital stock as measured in the existing accounts, the IEESA-based average rates of return on capital in the mining industry for 1958–91 are lower—4–5 percent rather than 23 percent (table B). Rates of return for all private capital slip from 16 percent using measures in the existing accounts to 14–15 percent using IEESA measures for the mining industries.
- Although the trends that emerge from the alternative methods are similar, the range of estimates is large. The highest estimates of stocks, depletion, and additions were obtained from the current rent estimates based on capital stock values, and the lowest were from the current rent estimates based on average rates of return to capital.

The stock of proved reserves increased from \$103-\$182 billion in 1958 to \$471-\$916 billion in 1991. In constant dollars, the stock rose somewhat and then fell, but over the period showed little change: From \$544-\$1,077 billion in 1958, the real stock slipped only slightly to \$530-\$1,030 billion in 1991. The patterns vary by type of mineral and reflect the effects of prices and costs of production, the volatility in international minerals prices, increasing environmental regulation, and the effect of strikes and other factors specific to each industry.

For petroleum, despite periodic concerns that the United States was running out of oil, additions have offset depletion throughout the period as oil companies have responded to higher net returns by stepping up exploration and improved recovery techniques to produce stocks of proved reserves sufficient to meet current and intermediate-term needs in light of current prices, costs, and interest rates. The one spike in the constant-dollar oil and gas series was in 1970, the year of the Alaskan oil strike.

For coal, additions have exceeded depletions, resulting in a generally rising constant-dollar value of stocks over time. For other minerals, the stock patterns have varied, with declining stocks in metals reflecting large declines in the returns to metals.

The 1991 stock of mineral reserves would add 3–7 percent to the 1991 value of reproducible tangible wealth of \$13,637 billion, of which private nonresidential structures and equipment were \$5,440 billion. Over time, the mineral reserves share of an expanded estimate of national wealth has fallen; in 1958, mineral reserves would have added 9–17 percent to reproducible tangible wealth. This decline appears to reflect several factors, including the economy's increased reliance on foreign resources and the increased efficiency in the use of fuels and other minerals.

Although industry makes large investments in exploring and developing mineral resources, the value of the invested capital associated with oil-fields and mines is small relative to the value of the mineral reserves themselves. In 1991, the value of subsoil assets was 2–4 times as large as the associated capital invested in mining. Addition of these stocks of productive natural assets provides a more comprehensive picture of both the assets and the returns in the mineral industries.

Treatment of natural resources symmetrically with investments in equipment and structures provides a very different picture of rates of return to mining. Rates of return in the mineral industries calculated using income and capital stock as measured in the existing accounts specifically, by dividing property-type income by the replacement value of structures, equipment, and inventories—averaged 23.1 percent for 1958-91. The more complete IEESA estimate deducts depletion and adds additions to property-type income, and it adds the value of resource stocks to the value of structures, equipment, and inventories. Depending on the valuation method used, the IEESA rate of return would be 3.5-5.2 percent. The effects of including mining resources are so large that the rate of return to all private capital is reduced from 16.1 percent to 14.1-14.9 percent. These IEESA rates of return provide a significantly different picture of the social rate of return to investments in the mining industries and the sustainability of the industries' output.<sup>12</sup>

As noted, the highest estimates of resource reserves are from the current rent method based on the value of capital stock invested in the industry.<sup>13</sup> The value of subsoil assets using this

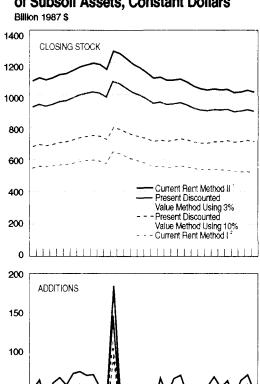
method was \$916 billion in 1991. The lowest value in 1991, \$471 billion, was obtained from the current rent method based on a normal return to invested capital. The present discounted value estimates fell somewhere in between—\$638-\$812 billion.

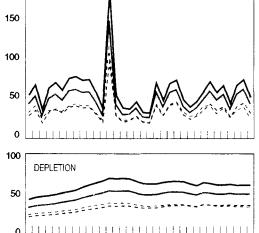
The replacement-cost and transactions-price estimates were computed only for oil and gas. The transactions-price estimates, despite considerable smoothing, were quite volatile and erratic.

preference rate of 3 percent—or a nominal rate of approximately 6 percent—the current rent methods may not be too far off the mark over long periods of time, given the range of uncertainty in the estimates of rates of return. If one chooses a higher discount rate, then *some* discounting should occur.

### **CHART 2**

# Stocks and Changes in the Stocks of Subsoil Assets, Constant Dollars





1958 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90

<sup>12</sup> Given the effect of tax laws, transfer pricing, and excluded assets, comparison of rates of return across methods is difficult at best. Many of the mining industries have relatively little invested capital (fixed or inventory) associated with the resources, and hence the computed returns to reproducible capital are overstated relative to those that mining companies, which do count the value of property, have on their books.

<sup>13.</sup> Over the period of this analysis, the current rent per unit for all the resources increased at an annual rate of 4-8 percent. Based on a real time

Based on the value of capitol stock.
 Based on the average return to invested capital

U.S. Department of Commerce, Bureau of Economic Analysis

Table A.1.—Value of the Resource, Additions, and Depletion of All Subsoil Assets, Current Rent Method I (Rate of Return)

Billions of 1987 dollars Billions of current dollars Year Revalu-Closing Opening stock Addi-Opening Addi-Denle Denle ation ad-justment stock (1+2-3+4) stock tion tion stock (6+7-8)(1) (2) (3) (4) (5) (6) (7) (8) (9) 1958 102 ( 31.4 39.5 550.0 562.2 558.5 564.2 569.8 572.5 580.7 590.9 1959 105.6 550.0 117.2 120.1 125.4 135.8 141.7 141.8 562.2 558.5 564.2 569.8 572.5 580.7 27. 28. 1960 ..... 1961 ..... 24.1 33.9 105.2 117.2 13.9 1.5 3.2 9.6 3.2 -2.3 -3.9 -1.2 4.1 6.5 -1.4 50.3 66.6 -17.5 56.7 43.5 -73.7 94.5 314.7 1962 ..... 1963 ..... 34.6 32.9 39.4 42.3 39.9 120.1 125.4 135.8 141.7 29.0 30.3 1964 1965 31.1 32.1 34.1 36.0 37.3 590.9 596.6 600.9 142.7 140.0 138.4 139.5 159.7 152.1 147.9 195.7 233.1 277.8 337.1 322.6 339.5 398.1 448.3 596.6 600.9 595.3 579.5 651.8 640.4 621.8 605.1 593.2 577.2 559.5 1967 142.7 140.0 40.2 31.7 22.6 112.7 28.4 21.7 22.9 26.2 20.4 18.2 1968 138.4 139.5 159.7 152.1 147.9 195.7 1969 1970 595.3 579.5 1971 1972 651.8 640.4 1972 ..... 1973 ..... 1974 ..... 1975 ..... 621.8 605.1 593.2 577.2 559.5 564.0 557.6 564.3 558.9 542.7 545.5 539.1 539.8 528.7 233.1 277.8 40.8 564.0 554.0 557.6 564.3 558.9 548.6 541.3 542.7 545.5 539.1 539.8 528.7 527.1 337.1 322.6 339.5 398.1 448.3 379.4 285.2 600.6 741.3 594.4 471.6 27.3 41.5 1978 .... 1979 .... 45.0 32.6 26.7 28.8 39.4 40.4 1980 1981 379.4 285.2 600.6 741.3 594.4 471.6 437.5 371.1 1982 ..... 1983 ..... 128.9 -146.7 -110.2 -34.8 -65.3 35.1 54.6 1984 1985 30.3 37.1 25.5 34.1 38.8 1986 1987 46.4 36.0 437 16.4 20.6 371.1 16.9 1989 409.9 409.9 471.2 1990

Table A.2.—Value of the Resource, Additions, and Depletion of All Subsoil Assets, Current Rent Method II (Value of Capital)

			,			•			,
		Billio	ns of cur	rent dollars		Billi	ions of 1	1987 dol	ars
Year	Opening stock	Addi- tions	Deple- tion	Revalu- ation ad- justment	Closing stock (1+2-3+4)	Opening stock	Addi- tions	Deple- tion	Closing stock (6+7–8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1958	181.9	7.7	7.1	5.9	188.3	1,077.4	52.7	43.6	1,086.5
1959	188.3	9.5	7.2	~1.5	189.3	1,086.5	65.3	45.9	1,105.9
1960	189.3	4.3	7.4	5.5	191.6	1,105.9	34.5	47.3	1,093.1
1961	191.6	9.9	7.5	4.0	198.0	1,093.1	61.4	48.1	1,106.4
1962	198.0	11.6		3.9	205.7	1,106.4	68.4	49.5	1,125.2
1963	205.7	9.5	8.2	5.3	212.3	1,125.2	58.8	51.7	1,132.3
1964	212.3	12.6		0	216.4	1,132.3	73.6	53.4	1,152.6
1965	216.4	12.3	8.6	7	219.4	1,152.6	76.0	55.0	1,173.6
1966	219.4	11.4	9.0	-1.5	220.4	1,173.6	71.4	58.6	1,186.4
1967	220.4	11.5	9.3	3.2	225.8	1,186.4	72.2	61.4	1,197.1
1968	225.8	9.4	9.6	.2	225.8	1,197.1	56.1	63.9	1,189.3
1969	225.8	5.6	10.0	2.8	224.2	1,189.3	35.9	66.4	1,158.8
1970	224.2	31.0	11.0	15.3	259.5	1,158.8	184.1	69.7	1,273.2
1971	259.5	10.9	11.4	8.1	267.1	1,273.2	52.1	69.0	
1972	267.1	6.9	11.7	7.9	270.3	1,256.4	36.8	69.6	1,223.6
1973	270.3	6.7	12.0	42.2	307.1	1,223.6	35.3	68.9	1,190.0
1974	307.1	12.1	14.9	79.4	383.7	1,190.0	44.4	66.1	1,168.3
1975	383.7	9.4	19.2	101.1	475.0	1,168.3	30.8		1,136.1
1976	475.0	13.6		88.9	552.3	1,136.1	30.1	62.3	1,103.9
1977	552.3	34.4	28.9	55.2	613.1	1,103.9	67.8	62.6	1,109.1
1978	613.1	23.1	31.8		639.3	1,109.1	45.8	64.4	1,090.5
1979	639.3	43.2			750.4	1,090.5	67.3	65.5	1,092.3
1980	750.4	50.7	45.5	125.3	881.0	1,092.3	71.4		1,097.9
1981	881.0	41.7	52.3	16.7	887.1	1,097.9	46.7	65.4	1,079.3
1982	887.1	50.3	76.0	180.2	1,041.6	1,079.3	37.7	62.8	1,054.2
1983	1,041.6	84.6	97.3	245.2	1,274.2	1,054.2	44.7	60.6	1,038.3
1984	1,274.2	102.5	101.8	21.1	1,296.0	1,038.3	56.8		1,030.8
1985	1,296.0	95.5	92.0	-121.4	1,178.1	1,030.8	69.5	63.2	1,037.1
1986	1,178.1	64.1	75.3	-100.1	1,066.9	1,037.1	56.0		
1987	1,066.9	64.6		-119.6	950.3	1,031.6	64.6	61.5	1,034.6
1988	950.3	33.4	44.6	-111.5	827.6	1,034.6	42.5	62.2	1,014.9
1989	827.6	50.4	44.4	29.6	863.2	1,014.9	65.0		1,018.8
1990	863.2	60.5		41.5	915.5	1,018.8	72.1	61.3	
1991	915.5	43.1	51.3	.4	907.6	1,029.6	50.3	61.2	1,018.7

Table A.3.—Value of the Resource, Additions, and Depletion of All Subsoil Assets, Present Discounted Value Method Using 3% Discount Rate

480.€

530.3

35.6

519.7

		Billio	ns of cui	rrent dollars		Billi	ions of	1987 doll	iars
Year	Opening stock	Addi- tions	Deple- tion	Revalu- ation ad- justment	Closing stock (1+2-3+4)	Opening stock	Addi- tions	Deple- tion	Closing stock <sup>1</sup> (6+7-8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1958 1959 1960 1961 1962 1963 1965 1965 1966 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1979 1979 1981 1982 1983	155.6 161.1 161.9 163.9 169.3 176.0 181.6 185.1 187.5 193.1 191.8 222.0 228.5 231.2 263.4 329.8 409.2 476.9 554.5 554.5 767.7 774.8	6.1 7.9 9.2 7.5 10.0 9.8 9.2 7.5 4.7 8.7 5.6 10.2 7.9 11.4 28.9 42.8 35.1 42.4 71.2	5.6 5.9 6.0 6.2 6.2 6.7 6.8 7.1 7.6 7.9 9.3 9.3 11.9 23.3 25.9 37.3 42.9 62.6	5.0 -1.1 4.5 3.5 3.5 3.5 3.5 2.2 -2.8 -1 14.2 6.9 6.4 36.1 68.2 86.8 86.8 30.5 30.5 30.5 40.0 109.8 109.8 11	161.1 161.9 163.9 169.3 176.0 181.6 185.1 187.7 188.5 193.1 193.1 191.8 222.0 228.5 231.2 263.4 329.8 409.2 476.9 530.5 554.5 652.4 767.7 774.8 911.8	921.6 929.4 946.0 935.1 946.4 962.6 986.0 1,003.9 1,017.4 1,077.1 1,046.7 1,020.3 1,004.0 978.7 1,020.3 1,046.7 953.1 959.8 949.6 949.6 949.6 949.6	42.0 52.0 27.5 48.9 54.5 46.8 56.9 56.9 28.6 44.7 28.6 29.7 37.4 45.5 29.3 31.7 31.7 31.7 31.7	34.6 36.5 37.5 38.2 39.3 41.0 42.4 43.7 46.5 50.7 55.3 55.2 50.3 50.3 50.5 53.9 53.6 53.6 50.2	929.4 946.0 935.1 946.4 962.6 986.6 986.0 1,003.9 1,014.8 1,024.0 1,017.1 1,046.7 1,020.3 1,004.0 978.7 953.1 959.8 949.6
1984 1985 1986 1987 1988 1989 1990	1,117.9 1,139.6 1,038.4 942.4 841.4 734.4 766.0 812.4	86.3 80.4 54.0 54.3 28.1 42.4 50.9 36.3	84.1 76.6 62.7 51.3 37.5 37.3 41.8 43.1	-97.6	1,139.6 1,038.4 942.4 841.4 734.4 766.0 812.4 805.4	911.0 906.5 914.1 911.3 916.0 900.6 904.1 913.6	47.8 58.5 47.2 54.3 35.8 54.7 60.7 42.3	52.6 51.3 51.3	906.5 914.1 911.3 916.0 900.6 904.1 913.6 903.9

Because of the simplifying assumptions used in the calculation of stocks for this method, closing stocks are not necessarily equal to opening stocks plus additions less depletion. For most years, the differences are very small.

Table A.4.—Value of the Resource, Additions, and Depletion of All Subsoil Assets, Present Discounted Value Method Using 10% Discount Rate

		Billio	ns of cui	rent dollars		Billi	ions of 1	1987 doll	ars
Year	Opening stock	Addi- tions	Deple- tion	Revalu- ation ad- justment	Closing stock (1+2-3+4)	Opening stock	Addi- tions	Deple- tion	Closing stock i (6+7-8)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1958	114.7	3.9	3.6	3.8	118.8	674.6	27.0	22.3	680.4
1959	118.8	4.9	3.7	6	119.3	680.4	33.5	23.6	692.7
1960	119.3	2.2	3.8	3.1	120.8	692.7	17.7	24.3	684.7
1961	120.8	5.1	3.9	2.8	124.8	684.7	31.5	24.7	693.3
1962	124.8	6.0	4.0	2.9	129.7	693.3	35.1	25.4	705.4
1963	129.7	4.9	4.2	3.5	133.8	705.4	30.2	26.5	710.0
1964	133.8	6.5	4.3	.5	136.4	710.0	37.8	27.4	722.8
1965	136.4	6.3	4.4	0 0	138.3	722.8	39.0	28.2	736.0
1966	138.3	5.9 5.9	4.6	6	139.0	736.0 744.0	36.6 37.0	30.1 31.5	744.0
1967	139.0		4.8	2.3	142.3				750.6 745.4
1968 1969	142.3 142.4	4.8	4.9	.1 1.3	142.4 141.4	750.6 745.4	28.8 18.4	32.8 34.0	745.4 726.1
	141.4	2.9 15.9	5.1		163.6	726.1	94.4	35.7	798.5
1970 1971	163.6	5.6	5.6 5.8	12.0 5.0	168.4	798.5	26.7	35.4	788.1
	168.4	3.6	6.0	4.4	170.4	788.1	18.9	35.7	767.7
	170.4	4.0	6.2	26.8	195.0	767.7	21.0	35.7	751.8
10=1	195.0	7.2	7.8	50.8	245.2	751.8	26.5	34.4	743.5
1974	245.2	5.6	10.1	64.8	305.5	743.5	18.3	33.1	729.4
1976	305.5	8.1	13.4	57.3	357.5	728.4	17.9	33.2	728.4 712.7
1977	357.5	20.5	15.4	36.8	399.4	712.7	40.4	33.5	720.8
1978	399.4	13.7	17.2	23.2	419.1	720.8	27.3	34.8	713.4
1979	419.1	25.7	20.6	70.9	495.1	713.4	40.1	35.8	719.7
1980	495.1	30.3	25.0	84.6	584.9	719.7	42.5	36.1	728.9
1981	584.9	24.8	29.4	12.3	592.7	728.9	27.8		721.6
4000	592.7	30.0	43.2	120.8	700.3	721.6	22.5	35.7	709.3
4000	700.3	50.4	55.6	166.9	862.0	709.3	26.6	34.6	702.8
	862.0	61.0	58.8	18.0	882.1	702.8	33.8	37.1	701.9
1984	882.1	56.9	53.8	-78.4	806.8	701.9	33.6 41.4	36.9	710.4
	806.8	38.2	44.3	-76.4 -65.6	735.1	710.4	33.4	36.2	710.4
1986	735.1	38.4	36.6	-03.0 -78.2	658.7	710.4	38.4	36.2	717.3
1988	658.7	19.9	26.5	-74.9	577.1	717.3	25.3	37.0	708.2
	577.1	30.0	26.5	21.3	602.0	708.2	38.7	36.3	711.3
1989	602.0	36.0	29.6		638.4	711.3	42.9		719.0
1991	638.4	25.6	30.6		632.9	719.0	30.0		711.5
1331	0.00.4	20.0	J 30.0	o	002.9	1 119.0	30.0	20.4	711.5

Because of the simplifying assumptions used in the calculation of stocks for this method, closing stocks are not necessarily equal to opening stocks plus additions less depletion. For most years, the differences are very small

1991

Table B.—Alternative Rates of Return, Averages for 1958–91

[Percent]

		IEESA based						
	NiPA based	Cur- rent rent I	Cur- rent rent II	PDV 3% rate	PDV 10% rate			
Mining industries	23.1	5.2	3.5	4.0	5.0			
Total private capital	16.1	14.9	14.1	14.4	14.8			

NoTE.—In general, rates of return are some measure of income divided by some measure of capital stock. For the NIPA-based estimates, income is defined as property-type income (profits, rents, net interest plus indirect business taxes), and capital stock is defined as structures, equipment, and inventories. In the alternative IEESA methods, income is also defined as property-type income, but depletion is subtracted from profits, and the value of additions is added; IEESA capital stock is defined as structures, equipment, and inventories plus the value of mineral resources.

PDV Present discounted value

The replacement-cost estimates produced the lowest values among all the estimates for gas. The transactions-price estimates produced the lowest values for oil.

For some of the subsoil asset estimates, especially those employing the current rent method based on a normal return to invested capital, the resource stock values and stock changes are quite low. In certain industries, especially the metals industries, the estimates were negative (indicated with an asterisk in the tables). These negative values indicate that the gross rents in these industries are so low that any procedure that assumes a normal return to capital in that industry must attribute a negative residual rent to the resource if total factor returns are to add up to market output. One can imagine an alternative procedure that assumes a normal return plus a depletion allowance and derives a negative residual for the invested capital associated with the resource.

# Appendix: Data Sources and Methods

### **Current-Dollar Estimates**

### Petroleum and natural gas

Prices and quantities.—The basic commodity prices used are the average wellhead prices for oil and gas from the American Petroleum Institute (API). The wellhead price for gas includes rents attributable to natural gas liquids (NGL) that, depending on market conditions, may be separated downstream. Oil production quantities are from API and the Department of Energy (DOE) and include both crude production and lease condensate production, both in millions of barrels. Natural gas production is marketed production from API and DOE. Marketed production has not yet undergone the extraction of NGL. Total rev-

enue for oil and gas production is calculated as price times quantity produced.

Reserve estimates are from API and DOE for crude oil and dry gas. The reserve volumes for oil and gas were augmented for reserves of NGL, which are reported separately. Additions were set equal to additions from DOE and API plus any residual change in stocks not accounted for by reported flows. The residual arises out of discontinuities in the estimates caused by the different reserve estimation methods used over the last 40 years.

The basic commodity price data used are yearly average prices. The large fluctuation in commodity prices, however, makes them unstable and thus unsuitable for estimating the average or expected returns that investors presumably have in mind in determining the appropriate price for long-lived assets such as mineral reserves. In order to smooth the estimates, a 3-year lagged average of the yearly average prices is used as the midyear market price.

Costs.—Data on current production expenditures and ad valorem and windfall profits taxes are from API'S Survey of Oil and Gas Expenditures (SOGE) and, for 1972–81, the Census Bureau'S Annual Survey of Oil and Gas (ASOG). "Finding costs" are obtained as a 3-year moving average of development expenditures per unit of reserve added; the source data are from the SOGE and the ASOG. For years not covered by the SOGE, estimates of costs were interpolated using an indicator series.

Capital stock.—The capital stock, depreciation, and investment estimates are from BEA. BEA defines investment and capital for mining industries differently from standard industry practice. BEA investment includes capital equipment, structures, and all exploration and development expenditures, even those expenditures that are treated as current expenses by operators. NIPA capital and investment estimates are available as an aggregate for oil and gas extraction (sic 13). The portion of capital for four-digit sic industry 1321, natural gas liquids, was removed from this series, as this capital is not used in the extraction of oil or gas. Rather, natural gas liquids, a small piece of sic 13, is a downstream process. The capital stock of the other four-digit components of SIC 13 is considered a part of the capital required for the extraction of oil and gas; for example, oil and gas field exploration services, sic industry 1382, is used as inputs for oil and gas extraction.

The NIPA investment series for oil and gas extraction from 1959–91 was disaggregated into oil extraction and gas extraction using the ratio of expenditures for successful oil wells drilled to expenditures for successful gas wells drilled. For 1947–58, expenditure ratios for oil wells and gas wells were estimated using the number of successful oil wells and gas wells drilled. These two investment series were then used to generate current- and constant-dollar capital stock and depreciation estimates for oil extraction and for gas extraction.

#### Other minerals

Inconsistencies in data and a paucity of data for nonbenchmark years present substantial difficulties in making estimates for other minerals. The data that do exist are often classified incongruently, or the definitions for series change over time. For example, Census Bureau data—which are the only comprehensive data available on production, costs, and revenues—are on an sic basis; BEA data on capital stocks are on an sic basis but at a more aggregate level than the Census data; and Bureau of Mines and DOE data on reserves, production quantities, and prices are on a commodity basis.

Prices and quantities.—For most minerals, the basic commodity prices used are 3-year lagged averages of the value of production divided by the quantity produced for metals and other minerals from the Bureau of Mines or DOE. For other minerals, a combination of available data on prices, quantities produced, or value of production is used to derive missing data on prices or value of production. Total revenue from current production is equal to the average price times the quantity produced.

Changing definitions for mineral reserve quantities present significant problems for the construction of consistent time series for mineral reserves. Prior to 1978, reserves were defined by the Bureau of Mines as economic reserves, both demonstrated and inferred; between 1979 and 1986, reserve base was the preferred definition, and this comprised demonstrated (but not inferred) economic reserves, marginal economic reserves, and part of subeconomic reserves; since 1987, only demonstrated economic reserves are included in the definition of reserves. Only the last definition is roughly consistent with proved reserves in oil and gas. The published estimates showed such large year-to-year changes—even within subperiods in which reserve definitions were unchanged—that BEA has attempted to develop a consistent, or at least smoothed, time series for these minerals. The BEA series use a weighted average that is based on a constant output-to-reserve ratio and on a judgmentally scaled moving average of published reserves. (Uranium reserves are based on a different method that splices DOE's forward-cost categories to construct a consistent time series.)

Costs.—Consistent data on production expenditures—current variable costs of extraction, including purchased services—were derived from the Census Bureau's minerals industries data and from BEA's benchmark input-output data.

Capital stock.—For census years between 1958 and 1991, data on investment in plant, equipment, and exploration and development were derived from the Census Bureau's Census of Mineral Industries. These investment data were then used to construct industry-specific capital stock estimates for mineral industries at a level of detail greater than that at which BEA normally produces estimates.

#### Constant-Dollar Estimates

Constant-dollar estimates for petroleum, natural gas, and other minerals use 1987 as the base year. The base-year estimate for resource rent was used to calculate constant-dollar series for the following methods: Current rent, present discounted value, and, for a shorter period, transactions price. For each method, the 1987 per-unit resource rent for the value of depletion was multiplied by the physical volume of depletion and additions to derive the value of depletion and additions, respectively. The constant-dollar value of the resource stock is the product of the 1987 per-unit resource rent and the end-of-year volume of reserves.

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Tables 1.1 through 5.4 follow.

Table 1.1.—Value of the Resource, Additions, and Depletion of Oil, Current Rent Method I (Rate of Return)

[Billions of current dollars]

# Table 1.2.—Value of the Resource, Additions, and Depletion of Oil, Current Rent Method II (Value of Capital)

						·						
Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)	Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)	
	(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)	
1947		2.4	1.8		26.1	1947		3.0	2.2		31.3	
1948	26.1	5.7	3.0	6.1	34.9	1948	31.3	6.7	3.5	6.4	40.9	
1949	34.9	4.5	2.5	.5	37.4	1949	40.9	5.5	3.1	2.3	45.6	
1950	37.4	4.1	3.0	.3	38.8	1950	45.6	4.9	3.6	2	46.8	
1951	38.8	6.4	3.2	-2.5	39.6	1951	46.8	7.8	3.9	-2.3	48.5	
1952	39.6	3.5	2.8	-3.9	36.3	1952	48.5	4.5	3.6	-3.2	46.1	
1953	36.3	4.3	3.0	1.2	38.9	1953	46.1	5.5	3.8	1.8	49.7	
1954	38.9	4.0	3.2	3.6	43.2	1954	49.7	5.2 5.8	4.1	4.8 3.8	55.5 60.3	
1955	43.2 48.2	4.6 4.6	3.9 3.9	4.2 -1.3	48.2 47.6	1955 1956	55.5 60.3	6.0	4.8 5.0	3.0	61.0	
1956	47.6	3.5	3.8	-1.0 -1.0	46.3	1957	61.0	4.7	5.0	7.2	61.4	
1958	46.3	4.1	3.6	1.0	47.2	1958	61.4	5.7	5.0	3.3	65.4	
1959	47.2	5.2	3.5	l –5.6	43.3	1959	65.4	7.4	5.0	-5.3	62.6	
1960	43.3	3.3	3.3	-1.1	42.1	1960	62.6	4.8	4.9	3	62.2	
1961	42.1	3.5	3.3	6	41.8	1961	62.2	5.2	4.9	-1.0	61.5	
1962	41.8	2.9	3.3	5	40.8	1962	61.5	4.3	4.9	6	60.4	
1963	40.8	3.1	3.6	1.6	42.0	1963	60.4	4.5	5.1	.5	60.2	
1964	42.0	3.6	3.6	7	41.3	1964	60.2	5.2	5.1	J71	59.5	
1965	41.3	4.0	3.5	-1.4	40.4	1965	59.5	5.9	5.1	-1.3	58.9	
1966	40.4	3.9	3.7	6 2.5	40.0 42.5	1966	58.9 57.7	5.6 5.7	5.3	-1.5 1.1	57.7 58.8	
1967 1968	40.0 42.5	4.1 3.3	4.1 4.2	2.5 1	42.5	1967 1968	58.8	4.6	5.7 5.8	8	56.8	
1968	41.6	2.8	4.3	ا' <sub>ا</sub>	40.5	1969	56.8	3.8	5.9	 	54.8	
1970	40.5	16.7	4.6	3.1	55.7	1970	54.8	23.7	6.5	8.7	80.7	
1971	55.7	3.3	4.7	1.0	55.3	1971	80.7	4.9	6.9	2.0	80.6	
1972	55.3	2.1	4.4	-1.8	51.2	1972	80.6	3.3	7.0	1.5	78.4	
1973	51.2	3.6	5.4	28.5	77.9	1973	78.4	4.7	7.0	18.7	94.9	
1974	77.9	3.8	5.8	10.9	86.8	1974	94.9	6.0	9.0	30.1	121.9	
1975	86.8	3.5	7.3	21.7	104.7	1975	121.9	5.5	11.5	33.0	149.0	
1976	104.7	4.2	10.0	19.8	118.7	1976	149.0	6.1	14.4	24.1	164.8	
1977	118.7	13.4	10.7	2.7	124.1	1977	164.8	19.6	15.6	9.3	178.1	
1978	124.1 137.9	9.8 7.1	11.3 12.9	15.4 60.4	137.9 192.5	1978 1979	178.1 194.9	14.7 10.8	17.1 19.7	19.2 71.2	194.9 257.2	
1980	192.5	19.0	18.9	102.8	295.4	1980	257.2	26.2	26.1	105.2	362.5	
1981	295.4	20.6	22.8	5.2	298.3	1981	362.5	30.2	33.5	37.0	396.2	
1982	298.3	19.8	38.6	102.9	382.4	1982	396.2	26.3	51.4	125.7	496.9	
1983	382.4	54.9	54.7	99.0	481.6	1983	496.9	65.4	65.1	82.1	579.3	
1984	481.6	62.1	51.6	-38.0	454.1	1984	579.3	74.2	61.7	-44.1	547.7	
1985	454.1	43.9	43.5	-122.4	332.1	1985	547.7	55.4	54.8	-112.6	435.6	
1986	332.1	16.1	30.2	-91.9	226.1	1986	435.6	21.9	41.3	-90.4	325.9	
1987	226.1	23.1	20.7	-83.9	144.7	1987	325.9	34.2	30.6	-88.3	241.2	
1988	144.7	6.1	7.1	-63.4	80.2	1988	241.2	15.9	18.5	-51.1	187.5	
1989	80.2	6.0	7.0	12.8	91.9	1989	187.5	16.4	19.3	30.8	215.4	
1990	91.9	9.2	10.3	32.5	123.3	1990	215.4	20.2	22.6	37.6	250.6	
1991	123.3	5.3	13.0	11.1	126.8	1991	250.6	10.3	25.0	5.8	241.7	

Table 1.3.—Value of the Resource, Additions, and Depletion of Oil, Present Discounted Value Method Using 3% Discount Rate

[Billions of current dollars]

# Table 1.4.—Value of the Resource, Additions, and Depletion of Oil, Present Discounted Value Method Using 10% Discount Rate

Year         Opening stock stock         Additions plant adjustment         Depletion adjustment         Perelatation Closing stock adjustment         Year         Opening stock stock stock stock         Depletion adjustment         Resolution Closing stock adjustment         Perelatation Cl	[					(======						
1947	Year		Additions	Depletion		Closing stock (1+2-3+4)	Year		Additions	Depletion		Closing stock (1+2-3+4)
1948		(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)
1948	1947			1.8		26.8	1947			1.1		19.8
1949	1948		5.3		5.7		1948		3.4			
1950   39,0					2.1						1.7	
1952							1950				.1	
1953							1951					
1954				2.9		39.5	1952					
1856	4054		4.4									
1956			4.1				1954					
1957	1000					52.2	1956					
1988											.4	
1960	1050	52.5					1958					
1960							1959					
1962				3.9		53.2	1960	39.5		2.5		39.2
1963	1000						1961					
1984	1000						1062					
1965         50.9         4.7         4.1         -1.1         50.4         1965         37.5         3.0         2.6         -8         37.1           1966         50.4         44.4         4.2         -1.3         49.3         1966         37.1         2.9         2.7         -9         36.4           1967         49.3         4.5         4.5         .9         50.3         1967         36.4         2.9         2.9         .7         .9         35.4           1968         50.3         3.7         4.6        8         48.6         1968         37.1         2.4         3.0        6         35.8           1970         46.9         18.9         5.2         8.4         69.0         1970         34.5         12.2         3.3         7.5         50.9           1971         60.0         3.9         5.5         1.5         68.9         1971         50.9         2.5         3.6         1.0         50.8           1972         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         5.4         49.4           1973         61.9         1.2 <t< td=""><td>4004</td><td></td><td></td><td></td><td></td><td></td><td>1964</td><td></td><td></td><td></td><td>-5</td><td></td></t<>	4004						1964				-5	
1966							1965				i –.ĕ	
1967         49.3         4.5         4.5         .9         50.3         1967         36.4         2.9         .7         37.1           1968         50.3         3.7         4.6        8         48.6         1968         37.1         2.4         3.0        6         34.5           1969         48.6         3.1         4.7        1         46.9         1969         35.8         2.0         3.0        2         34.5           1970         46.9         18.9         5.2         8.4         69.0         1970         34.5         12.2         3.3         7.5         50.9           1971         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         1.0         50.9           1972         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         1.5         69.9           1973         67.1         4.0         5.6         15.9         81.3         1973         49.4         2.8         3.6         11.6         60.2           1974         81.3         5.1         7.2         25.6	1000						1966					
1969         48.6         3.1         4.7         -1         46.9         1969         35.8         2.0         3.0         -2         34.5           1970         69.0         18.9         5.2         8.4         69.0         1970         34.5         12.2         3.3         7.5         50.9           1971         69.0         3.9         5.5         1.5         68.9         1971         50.9         2.5         3.6         1.0         50.8           1972         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         5         49.4           1973         67.1         4.0         5.6         15.9         81.3         1973         49.4         2.8         3.6         11.6         60.2           1974         81.3         5.1         7.2         25.6         104.8         1974         60.2         3.6         4.7         18.8         77.9           1975         104.8         4.7         9.2         28.1         192.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         15.2         11.6	4007						1967			2.9	.7	
1970         46,9         18.9         5.2         8.4         69.0         1970         34,5         12.2         3.3         7.5         50.8           1971         68.0         3.9         5.5         1.5         68.9         1.7         3.6         1.0         50.8           1972         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         .5         49.4           1973         67.1         4.0         5.6         15.9         81.3         1973         49.4         2.8         3.6         11.6         60.2           1974         8         13.3         5.1         7.2         25.6         104.8         1974         60.2         3.6         4.7         18.8         77.9           1975         104.8         4.7         9.2         28.1         128.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         5.2         11.6         20.4         142.3         1976         95.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9<	1968				8		1968					
1971         69.0         3.9         5.5         1.5         68.9         1971         50.9         2.5         3.6         1.0         50.8           1972         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         5.         49.4           1973         67.1         4.0         5.6         15.9         81.3         1973         49.4         2.8         3.6         11.6         60.2           1974         81.3         5.1         7.2         25.6         104.8         1974         60.2         3.6         4.7         18.8         77.9           1975         104.8         4.7         9.2         28.1         128.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         5.2         11.6         20.4         142.3         1975         95.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1979         154.1         12.4							1969					
1972         68.9         2.6         5.5         1.1         67.1         1972         50.8         1.7         3.6         5         49.4           1973         67.1         4.0         5.6         15.9         81.3         1973         49.4         2.8         3.6         11.6         60.2           1974         81.3         5.1         7.2         25.6         104.8         1974         60.2         3.6         4.7         18.8         77.9           1975         104.8         4.7         9.2         28.1         128.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         5.2         11.6         20.4         142.3         1976         95.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1979         169.0         9.1	4074						1970					
1973         67.1         4.0         5.6         15.9         81.3         1973         49.4         2.8         3.6         11.6         60.2           1974         81.3         5.1         7.2         25.6         104.8         1974         60.2         3.6         4.7         18.8         77.9           1975         104.8         4.7         9.2         28.1         128.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         5.2         11.6         20.4         142.3         1976         95.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.3         69.7         240.7           1981         315.9 <td< td=""><td>4474</td><td></td><td></td><td></td><td></td><td></td><td>19/1</td><td></td><td></td><td></td><td>1.0</td><td></td></td<>	4474						19/1				1.0	
1974         81.3         5.1         7.2         25.6         104.8         1974         60.2         3.6         4.7         18.8         77.9           1975         104.8         4.7         9.2         28.1         128.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         5.2         11.6         20.4         142.3         1976         96.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.3         69.7         240.7           1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0							1072				G. 116	
1975         104.8         4.7         9.2         28.1         128.3         1975         77.9         3.3         6.0         20.7         95.8           1976         128.3         15.2         11.6         20.4         142.3         1976         95.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1979         169.0         9.1         16.1         61.6         223.6         1979         127.7         6.4         10.8         46.2         169.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.8         46.2         169.7           1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0 <td>4074</td> <td></td>	4074											
1976         128.3         5.2         11.6         20.4         142.3         1976         95.8         3.6         7.7         14.9         106.7           1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1979         169.0         9.1         16.1         61.6         223.6         1979         127.7         6.4         10.8         46.2         169.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.3         69.7         240.7           1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0         22.2         42.3         109.1         435.0         1982         264.7         15.7         29.2         82.9         334.1           1983         43	4000						1975					
1977         142.3         16.5         12.6         7.9         154.1         1977         106.7         11.7         8.4         6.0         116.0           1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1979         169.0         9.1         16.1         61.6         223.6         1979         127.7         6.4         10.8         46.2         169.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.3         69.7         240.7           1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0         22.2         42.3         109.1         435.0         1982         264.7         15.7         29.2         82.9         334.1           1983         435.0         55.0         54.0         72.2         508.3         1983         334.1         38.9         37.2         56.1         391.9           1984 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>142.3</td><td>1976</td><td></td><td></td><td></td><td></td><td></td></t<>						142.3	1976					
1978         154.1         12.4         13.9         16.4         169.0         1978         116.0         8.8         9.2         12.2         127.7           1979         169.0         9.1         16.1         61.6         223.6         1979         127.7         6.4         10.8         46.2         169.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.3         69.7         240.7           1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0         22.2         42.3         109.1         435.0         1982         264.7         15.7         29.2         82.9         334.1           1983         435.0         55.0         54.0         72.2         508.3         1983         334.1         38.9         37.2         56.1         391.9           1984         508.3         62.5         51.0         -38.1         481.7         1984         391.9         44.2         35.7         -27.6         372.8           1985							1977					116.0
1979         169.0         9.1         16.1         61.6         223.6         1979         127.7         64         10.8         46.2         169.7           1980         223.6         22.1         21.4         91.6         315.9         1980         169.7         15.6         14.3         69.7         240.7           1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0         22.2         42.3         109.1         435.0         1982         264.7         15.7         29.2         82.9         334.1           1983         435.0         55.0         54.0         72.2         508.3         1983         334.1         38.9         37.2         56.1         391.9           1984         508.3         62.5         51.0         -38.1         481.7         1984         391.9         44.2         35.7         -27.6         372.8           1985         481.7         46.6         45.7         -98.6         383.9         1985         372.8         33.0         32.1         -75.4         298.9           1986	1978		12.4	13.9	16.4		1978		8.8			
1981         315.9         25.4         27.5         32.2         346.0         1981         240.7         18.0         18.8         24.9         264.7           1982         346.0         22.2         42.3         109.1         435.0         1982         264.7         15.7         29.2         82.9         334.1           1983         435.0         55.0         54.0         72.2         508.3         1983         334.1         38.9         37.2         56.1         391.9           1984         508.3         62.5         51.0         -38.1         481.7         1984         391.9         44.2         35.7         -27.6         372.8           1985         481.7         46.6         45.7         -98.6         383.9         1985         372.8         33.0         32.1         -75.4         298.3           1986         383.9         18.5         34.4         -80.2         287.9         1986         298.3         13.1         24.3         -62.6         298.3           1987         226.9         28.8         25.5         -77.7         213.6         1987         224.6         20.4         18.2         -59.5         167.2           1988<							1979					
1982         346.0         22.2         42.3         109.1         435.0         1982         264.7         15.7         29.2         82.9         334.1           1983         435.0         55.0         54.0         72.2         508.3         1983         334.1         38.9         37.2         56.1         391.9           1984         508.3         62.5         51.0         -38.1         481.7         1984         391.9         44.2         35.7         -27.6         372.8           1985         481.7         46.6         45.7         -98.6         383.9         1985         372.8         33.0         32.1         -75.4         298.3           1986         383.9         18.5         34.4         -80.2         287.9         1986         298.3         13.1         24.3         -62.6         224.6           1987         287.9         28.8         25.5         -77.7         213.6         1987         224.6         20.4         18.2         -59.5         167.2           1988         213.6         13.4         15.6         -45.0         166.4         1988         167.2         9.5         11.0         -34.9         130.8           1990	1001						1980					
1983         435.0         55.0         54.0         72.2         508.3         1983         334.1         38.9         37.2         56.1         391.9           1984         508.3         62.5         51.0         -38.1         481.7         1984         391.9         44.2         35.7         -27.6         372.8           1985         481.7         46.6         45.7         -98.6         383.9         1985         372.8         33.0         32.1         -75.4         298.3           1986         383.9         18.5         34.4         -80.2         287.9         1986         298.3         13.1         24.3         -62.6         224.6           1987         287.9         28.8         25.5         -77.7         213.6         1987         224.6         20.4         18.2         -59.5         167.2           1988         213.6         13.4         15.6         -45.0         166.4         1988         167.2         9.5         11.0         -34.9         130.8           1989         166.4         13.8         16.2         27.2         191.1         1989         130.8         9.7         11.5         21.2         150.2         199.0         15	1000						1981					
1984     508.3     62.5     51.0     -38.1     481.7     1984     391.9     44.2     35.7     -27.6     372.8       1985     481.7     46.6     45.7     -98.6     383.9     1985     372.8     33.0     32.1     -75.4     298.3       1986     383.9     18.5     34.4     -80.2     287.9     1986     298.3     13.1     24.3     -62.6     224.6       1987     287.9     28.8     25.5     -77.7     213.6     1987     224.6     20.4     18.2     -59.5     167.2       1988     213.6     13.4     15.6     -45.0     166.4     1988     167.2     9.5     11.0     -34.9     130.8       1989     166.4     13.8     16.2     27.2     191.1     1989     130.8     9.7     11.5     21.2     150.2       1990     191.1     17.0     19.0     33.2     222.4     1990     150.2     12.1     13.5     26.0     174.8												
1985     481.7     46.6     45.7     -98.6     383.9     1985     372.8     33.0     32.1     -75.4     298.3       1986     383.9     18.5     34.4     -80.2     287.9     1986     298.3     13.1     24.3     -82.6     224.6       1987     287.9     28.8     25.5     -77.7     213.6     1987     224.6     20.4     18.2     -59.5     167.2       1988     213.6     13.4     15.6     -45.0     166.4     1988     167.2     9.5     11.0     -34.9     130.8       1989     166.4     13.8     16.2     27.2     191.1     1989     130.8     9.7     11.5     21.2     150.2       1990     191.1     17.0     19.0     33.2     222.4     1990     150.2     12.1     13.5     26.0     174.8							1084					
1986         383.9         18.5         34.4         -80.2         287.9         1986         298.3         13.1         24.3         -62.6         224.6           1987         287.9         28.8         25.5         -77.7         213.6         1987         224.6         20.4         18.2         -59.5         167.2           1988         213.6         13.4         15.6         -45.0         166.4         1988         167.2         9.5         11.0         -34.9         130.8           1989         166.4         13.8         16.2         27.2         191.1         1989         130.8         9.7         11.5         21.2         150.2           1990         191.1         17.0         19.0         33.2         222.4         1990         150.2         12.1         13.5         26.0         174.8	1005					383 9	1985					
1987         287.9         28.8         25.5         -77.7         213.6         1987         224.6         20.4         18.2         -59.5         167.2           1988         213.6         13.4         15.6         -45.0         166.4         1988         167.2         9.5         11.0         -34.9         130.8           1989         166.4         13.8         16.2         27.2         191.1         1989         130.8         9.7         11.5         21.2         150.2           1990         191.1         17.0         19.0         33.2         222.4         1990         150.2         12.1         13.5         26.0         174.8	1000						1986					
1988     213.6     13.4     15.6     -45.0     166.4     1988     167.2     9.5     11.0     -34.9     130.8       1989     166.4     13.8     16.2     27.2     191.1     1989     130.8     9.7     11.5     21.2     150.2       1990     191.1     17.0     19.0     33.2     222.4     1990     150.2     12.1     13.5     26.0     174.8							1987				-59.5	
1989	1988	213.6				166.4	1988	167.2			-34.9	130.8
1990	1989		13.8	16.2	27.2		1989		9.7	11.5		
1991   222.4   8.7   21.0   4.4   214.5   1991   174.8   6.1   14.9   2.5   168.5							1990					
	1991	222.4	8.7	21.0	4.4	214.5	1991	174.8	6.1	14.9	2.5	168.5

23.6 23.6 24.4 26.3 26.7 26.9 24.2 26.6 28.2 29.4 29.2 26.9

32.3 39.4 37.2 34.0 42.3 49.0 43.4 58.7 74.4 95.1 128.4

179.5 182.6 237.9 291.8 293.2

219.5 166.8

118.7

110.2 77.8

-.4 .9 1.6 -.5 .2 -2.7 -.6 2.4 1.3

-.1 -1.7 6.5 -1.5 -1.3 -1.7 9.2 7.7 -4.3 18.1

21.7 37.2 51.1 4.5 66.8 53.8 -5.4 -73.9 -42.4

-49.0

8.4

2.0 2.1

1.9

2.8 2.7

3.4 3.3 3.2 2.9 2.8

4.8 6.3 7.8 8.7 10.9 13.2 23.8 33.4 33.2 28.6 22.1

16.2

11.6 11.2

Table 1.5.—Value of the Resource, Additions, and Depletion of Oil, Replacement Cost Method

24.3 23.9

24.2 26.6 28.2

29.4 29.2

26.9 32.3 39.4 37.2 34.0 42.3 49.0

43.4 58.7

74.4 95.1

128.4 179.5 182.6

237.9 291.8

293.2 219.5

166.8 119.8

118.7

125.4

1947 1948

1949

1950

1952 1954

1956 1957

1959

1961

1963

1965

1967

1968

1977

1979

1981 1982

1983

1986

1988

1969 .....

1984 .....

.....

1991 .....

[Billions of current dollars] Opening stock Revaluation adjustment Closing stock Additions Depletion Year (1+2-3+4)(1) (2) (3) (4) (5) 19.2 17.7 18.3 19.2 17.7 1.2 1.4 1.3 1.2 1.4 1.9 2.0 -2.4 1. 2.5– 18.3 17.2 16.7 16.4 19.8 23.6 24.4 26.3 26.7 26.9 17.2 16.7 16.4 19.8 -.8 -.8 3.1 3.4

Table 1.6.—Value of the Resource, Additions, and Depletion of Oil, Transaction Price Method

18.2 10.0 9.5

8.7 3.3

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)	
	(1)	(2)	(3)	(4)	(5)	
1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1986 1987 1988	93.7 113.4 150.2 154.0 152.1 121.7 81.4 72.0 66.0 58.2 35.7 13.2 17.2	10.8 7.5 7.2 16.6 12.4 9.4 8.8 10.4 7.0 4.1 5.8 1.4 1.2 2.2	8.6 8.7 13.2 16.5 13.8 18.4 8.6 7.0 7.7 5.1 1.6 1.5 5.3	20.9 42.7 3.7 5 -21.5 -40.3 -11.1 -4.2 -23.1 -22.3 4.3 20.0 11.1	93.7 113.4 150.2 154.0 152.1 121.7 81.4 72.0 66.0 58.2 35.7 13.2 17.2 37.1 45.1	

Table 2.1.—Value of the Resource, Additions, and Depletion of Gas, Current Rent Method I (Rate of Return)

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1947		(*)	(*)		(*)
948	000	()	(*)	(*)	(*)
949	Ω.	(2)	(Ω)	(Ω)	(2)
950	Ι Ω	(*)	Ω.	Ωί	Ω.
1951	lΩ	<u>ნეეე</u> და	(Ω)	Ω	) <u>.</u>
952	Ωl	Ω	$\mathcal{L}$	$\mathcal{A}$	) <u>,</u> ,
953	$  \qquad   \qquad   \qquad  $	$\mathcal{A}$	$\mathcal{L}$	$\mathbb{R}$	1.5
954	1.11	الا ا الا	.1	1.8	3.1
956	3.1	ႏှ	.1	5	2.7
957	2.7		i i	3 3	2.6
958	2.6	4 3	: : : : : : : : : : : : : : : : : : : :	5 1.5	4.1
959	4.1	3 9		.5	4.8
960	4.8	بزم		2.9	7.7
961	7.7	9.	.2 .3 .4	1.8	9.7
962	9.7	.8		1.3	11.2
1963	11.2	.9	.5 .7	2.4	13.9
1964	13.9	1.0	.8 .8	.2	14.3
965	14.3	1.01	.8	7	13.9
1966	13.9	.9	.8	7	13.3
1967	13.3	1.0	.8.	.8.	14.3
968	14.3	.6	.9	.2	14.2
1969	14.2	.4	1.0	.6	14.2
1970	14.2	1.9	1.1	.8	15.8
1971	15.8	1.9 .5 .3 .2 .2 .4	1.1	2	15.0
1972	15.0	.3	.8	-2.9	11.6
1973	11.6	.2	.8	3.0	14.0
1974	14.0	.2	.6	2.3	15.8
1975	15.8	.4	.8	5.6	21.1
1976	21.1	.7	2.1	18.4	38.2
1977	38.2	2.3	3.6	14.9	51.7
1978	51.7	2.3	4.1	9.2	59.1
1979	59.1	3.9	5.4	20.3	77.9
1980	77.9	6.3	5.2	7.8	86.7
1981	86.7	.8	.7	-45.6	41.3
1982	41.3	3.0	3.0	20.2	61.5
1983	61.5	10.1	11.0	100.9	161.6
1984	161.6	15.6	18.5	51.1	209.8
1985	209.8	10.6	14.1	65.4	140.9
1986	140.9	10.0	11.3	-34.6	105.1
1987	105.1	6.9	9.3	-24.0	78.6
1988	78.6	4	3.6	-44.3	30.3
1989	30.3	2.1	2.2	-5.5	24.7
1990	24.7	4.1	3.7	10.1	35.3
1991	35.3	2.8	3.2	-3.8	31.1

<sup>\*</sup> Indicates that the calculated value of the entry was negative, resulting from a negative resource rent. Because a negative resource rent is simply the mechanical result of treating resource rent as a residual after the deduction of other factor payments, the values have been replaced by asterisks. Where the resource rent was negative in the base year (1987) for individual mineral types, the average for the 3 year period, 1987-69, was substituted for the 1987 rent for the purpose of calculating constant-dollar estimates shown in tables B.1 through B.4. Where the 1987-89 average was negative, a base year price of zero was used for the constant-dollar estimates.

Table 2.2.—Value of the Resource, Additions, and Depletion of Gas, Current Rent Method II (Value of Capital)

[Billions of current dollars]

# Table 2.3.—Value of the Resource, Additions, and Depletion of Gas, Present Discounted Value Method Using 3% Discount Rate

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Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)	Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)
1947		0.3	0.1		6.1	1947			0.1		5.2
1948	6.1	.5	.2	.7	7.2	1948	5.2	.4		.6	6.1
1949	7.2	.4	.2 .2	.1	7.5	1949	6.1	.3	.2 .2 .2	1	6.4
1950	7.5	.5	.2	~.1	7.7	1950	6.4	.4	.2	1	6.6
1951	7.7	.6	.3	.1	8.1	1951	6.6	.5	.2	.1	6.9
1952	8.1	.5	.3	] .3	8.6	1952	6.9	.4	.2	1.2	7.3
1953	8.6	.9	.4 .5	1.5	10.6 12.8	1953	7.3	./,	.3	1.3	9.1
1954 1955	10.6 12.8	1 1 1	c. 6.	2.2	15.7	1954	9.1 11.0	1.1	.5	1.9	11.0 13.4
1956	15.7	1.7	.0	2.0	17.1	1955 1956	13.4	1.3	.5	1.0	14.6
1957	17.1	1.4	.7	.5	18.2	1957	14.6	1.1	.6	.4	15.6
1958	18.2	1.4	8.	1.8	20.7	1958	15.6	1.1	.7	1.6	17.7
1959	20.7	1.6	.9		21.4	1959	17.7	1.3	.7	.1	18.3
1960	21.4	1.2	1.1	2.4	23.9	1960	18.3	.9	.8	2.1	20.4
1961	23.9	1.6	1.2	1.8	26.0	1961	20.4	1.3	1.0	1.5	22.3
1962	26.0	1.9	1.3	1.5	28.1	1962	22.3	1.6	1.1	1.3	24.1
1963	28.1	1.9	1.5	1.1	29.7	1963	24.1	1.5	1.2	1.0	25.4
1964	29.7 30.1	2.1 2.2	1.6 1.6	]	30.1 30.1	1964	25.4 25.7	1.7 1.7	1.3 1.3	]	25.7 25.8
1965	30.1	2.4	1.7	5  8	29.6	1965 1966	25.8	1.6	1.3	<del>4</del>	25.3
1966	29.6	2.0	1.8	<sub>7</sub>	30.7	1967	25.3	1.7	1.4	,	26.2
1968	30.7	1.3	1.9	-2	29.9	1968	26.2	1.1	1.5	ž	25.6
1969	29.9	.8.	2.0	4	28.2	1969	25.6	.6	1.6	4	24.2
1970	28.2	3.8	2.2	1.1	30.9	1970	24.2	3.0	1.7	1.0	26.5
1971	30.9	1.0	2.3	3	29.4	1971	26.5	.8	1.8	4	25.1
1972	29.4	.9	2.2	3	27.8	19/2	25.1	.7	1.8	3	23.8
1973	27.8	.6	2.2	3.0	29.2	1973	23.8	.5	1.8	2.5	25.0
1974	29.2	1.9	2.4	7.5	35.2	1974	25.0	.8	1.9	6.4	30.3
1975	35.2 48.9	1.7	3.2 4.8	15.1 22.0	48.9 67.8	1975	30.3 42.1	1.5	2.6 3.9	12.9 18.8	42.1 58.5
1976 1977	67.8	4.3	6.9	19.9	85.1	1976 1977	58.5	3.6	5.5	17.0	73.7
1978	85.1	4.6	8.3	18.5	99.9	1978	73.7	3.9	6.8	15.9	86.6
1979	99.9	7.7	10.6	29.1	126.1	1979	86.6	6.5	8.7	25.2	109.6
1980	126.1	13.7	11.3	17.2	145.6	1980	109.6	11.7	9.4	15.0	126.9
1981	145.6	12.1	10.6	-8.4	138.8	1981	126.9	10.2	8.7	-7.2	121.2
1982	138.8	16.7	16.9	78.8	217.3	1982	121.2	14.1	13.9	68.9	190.2
1983	217.3	22.3	24.2	111.5	326.9	1983	190.2	18.7	20.0	97.9	286.9
1984	326.9	25.7	30.5	22.0	344.1	1984	286.9	21.6	25.2 22.8	19.3	302.6 260.3
1985	344.1 295.3	20.6 21.5	27.4	-42.0 -33.3	295.3 259.3	1985	302.6 260.3	17.3 18.1	22.8	-36.8 -29.2	260.3 229.1
1986 1987	295.3 259.3	14.9	24.1 20.3	-53.5 -51.8	202.2	1986 1987	229.1	12.6	16.9	-29.2 -45.8	179.0
1988	202.2	-1.8	14.7	-51.4	134.2	1988	179.0	-1.5	12.4	-46.0	119.1
1989	134.2	12.4	13.1	-4.1	129.5	1989	119.1	10.4	11.0	-3.7	114.9
1990	129.5	16.1	14.3	5.7	136.9	1990	114.9	13.5	12.0	5.1	121.5
1991	136.9	12.2	14.0	-2.3	132.8	1991	121.5	10.3	11.8	-2.2	117.8
	L	1			L		1		L		

Table 2.4.—Value of the Resource, Additions, and Depletion of Gas, Present Discounted Value Method Using 10% Discount Rate

Opening stock Closing stock (1+2-3+4) Revaluation Depletion Year Additions adjustment (1) (2) (3) 1947 0.1 1948 3.9 4.5 4.7 4.8 32233537977868 100 1949 1950 0 4.8 5.1 5.4 6.7 8.1 9.9 1951 ..... .1 .2 1.0 5.1 5.4 6.7 8.1 9.9 10.8 11.5 13.0 13.5 1953 1.4 1.4 .4 .4 1.2 1955 10.8 11.5 13.0 1956 ..... 1957 1958 1.5 13.5 15.1 1960 15.1 16.4 17.7 18.7 19.0 16.4 17.7 18.7 19.0 1.2 1.0 .8 0 -.3 -.5 -.5 1962 1964 1.1 1.0 1.1 7 4.9 5.5 1.0 2.6 2.7 4.6 8.2 7.9 9.9 13.3 15.3 12.3 1965 19.0 18.7 19.3 18.8 17.8 1966 18.7 19.3 18.8 17.8 19.5 17.5 18.5 22.5 31.4 43.9 1967 1968 1969 19.5 1971 -.4 -.3 1.8 4.7 9.6 14.0 12.7 11.8 18.5 17.5 18.5 1973 22.5 31.4 1975 1976 43.9 55.5 65.5 83.2 96.7 55.5 65.5 1978 83.2 96.7 92.7 18.9 11.6 1980 -5.2 53.1 75.6 15.4 -28.2 146.1 221.2 92.7 1982 146.1 221.2 234.2 202.2 178.7 1984 234.2 202.2 1985 -20.2 -22.2 -35.4 12.8 178.7 140.1 1986 1987 8.8 7.8 8.5 8.3 140.1 93.6 -1.0 7.4 -36.7 93.6 90.3 95.5 1989 ..... -2.9 4.1 1991 -1.892.6

Table 2.5.—Value of the Resource, Additions, and Depletion of Gas, Replacement Cost Method

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
947 948 949 949 950 950 951 952 953 954 955 956 957 960 961 962 963 964 966 966 966 970 971 977 978 979 977 978 979 979 979 977 978 979 979	1.3 1.6 1.7 1.5 2.0 4.7 6.4 6.6 4.7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	00000000000000000000000000000000000000	CCCCCCCC. 1 0 1.2.3.4.3.4.3.CCCCCCCCCCCC. 28.0.5.4.9.9.6.6.6.8	(*) (*) (*) (*) (*) (*) (*) (*) (*) (*)	(†) (†) (†) (†) (†) (†) (†) (†) (†) (†)

Indicates that the calculated value of the entry was negative, resulting from a negative resource rent. Because a negative resource rent is simply the mechanical result of treating resource rent as a residual after the deduction of other factor payments, the values have been replaced by asterisks. Where the resource rent was negative in the base year (1987) for individual mineral types, the average for the 3 year period, 1987-89, was substituted for the 1987 rent for the purpose of calculating constant-dollar estimates shown in tables B.1 through B.4. Where the 1987-89 average was negative, a base year price of zero was used for the constant-dollar estimates.

Table 2.6.—Value of the Resource, Additions, and Depletion of Gas, Transaction Price Method

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989	129.5 144.8 186.8 198.1 210.6 184.6 141.0 126.8 118.7 115.9 81.2 42.7 44.0 67.2	7.7 6.3 12.2 24.8 20.4 21.4 10.1 10.1 7.4 9.6 6.5 5.5 6	12.2 11.4 16.8 20.5 17.9 21.7 11.0 9.9 10.7 8.8 4.9 4.4	20.3 46.7 7.0 10.0 -25.7 -42.7 -12.3 -5.6 -1.7 -32.3 -33.0 1.5 22.5 16.3	129.5 144.8 186.8 198.1 210.6 184.6 141.0 126.8 118.7 115.9 81.2 42.7 44.0 67.2 82.3

Table 3.1.—Value of the Resource, Additions, and Depletion of Coal, Current Rent Method I (Rate of Return)

Table 3.3.—Value of the Resource, Additions, and Depletion of Coal, Present Discounted Value Method Using 3% Discount Rate [Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)	Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)
1958	9.8	0.2	0.2	-0.1	9.7	1958	19.4	0.4	0.4	-0.1	19.2
1959	9.7	.2	.3	1.8	11.5	1959	19.2	.4	.4	.8	19.9
1960	11.5	<u>.</u> ī l	.3	1.2	12.5	1960	19.9	.2	.5	.6	20.2
1961	12.5	.4	.3	.4	13.0	1961	20.2	.6	.5	.4	20.7
1962	13.0	.5	.4	1.3	14.4	1962	20.7	.7	.5	.4	21.4
1963	14.4	.7	.4	1.7	16.3	1963	21.4	.8	.5	.6	22.2
1964	16.3	.7	.4	5	16.2	1964	22.2	9.	.6	9	21.7
1965	16.2	.7	.4	4	16.0	1965	21.7	اۋ. ا	.6	8	21.3
1966	16.0	.6	.4	8	15.3	1966	21.3	.8	6.	7	20.7
1967	15.3	.5	.4	-1.3	14.1	1967	20.7	.7	.5	7	20.2
1968	14.1	.5	.4	l –1.3	13.0	1968	20.2	.8	.5	1	20.4
1969	13.0	.4	.3	0	13.1	1969	20.4	.6	.6	.9	21.3
1970	13.1	.5	.4	2.5	15.6	1970	21.3	.7	.6	2.3	23.7
1971	15.6	.5	.4	l –.3	15.3	1971	23.7	.8	.7	2.7	26.6
1972	15.3	.5	.5	1.4	16.8	1972	26.6	.9	.8	2.5	29.2
1973	16.8	.6	.5	8.0	24.9	1973	29.2	1.1	.9	9.4	38.7
1974	24.9	1.5	1.0	16.5	41.9	1974	38.7	2.2	1.4	17.5	57.1
1975	41.9	2.3	1.7	18.9	61.5	1975	57.1	3.0	2.1	21.0	79.1
1976	61.5	3.0	2.4	13.0	75.1	1976	79.1	3.8	2.9	16.1	96.1
1977	75.1	4.2	2.5	.7	77.5	1977	96.1	5.7	3.3	9.2	107.7
1978	77.5	.6	2.1	<b>_</b> 9.9	66.2	1978	107.7	1.0	3.3	4.8	110.3
1979	66.2	11.8	2.6	7.9	83.3	1979	110.3	18.8	4.1	9.4	134.4
1980	83.3	6.9	3.0	4.9	92.2	1980	134.4	11.2	4.7	10.2	151.2
1981	92.2	2.4	3.0	.4	91.9	1981	151.2	4.0	5.0	8.6	158.9
1982	91.9	5.9	3.3	5.9	100.4	1982	158.9	9.7	5.3	5.7	169.0
1983	100.4	.1	3.4	6.1	103.2	1983	169.0	.2	5.2	6.5	170.4
1984	103.2	6.1	4.8	22.4	127.0	1984	170.4	8.0	6.1	3.0	175.3
1985	127.0	7.7	4.9	4.6	134.4	1985	175.3	9.7	6.1	1.1	180.0
1986	134.4	7.5	5.1	4.0	140.7	1986	180.0	9.2	6.2	.3	183.4
1987	140.7	4.4	5.4	3.2	143.0	1987	183.4	5.3	6.4	-1.5	180.8
1988	143.0	5.8	5.3	-5.2	138.3	1988	180.8	6.9	6.3	-6.4	174.9
1989	138.3	4.5	5.3	-2.5	134.9	1989	174.9	5.4	6.3	-4.2	169.7
1990	134.9	7.0	5.6	1.2	137.5	1990	169.7	8.2	6.5	2.0	169.3
1991	137.5	4.6	5.3	-2.4	134.4	1991	169.3	5.5	6.3	-1.2	167.3

Table 3.2.—Value of the Resource, Additions, and Depletion of Coal, Current Rent Method II (Value of Capital)

[Billions of current dollars]

Table 3.4.—Value of the Resource, Additions, and Depletion of Coal, Present Discounted Value Method Using 10% Discount Rate [Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)	Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)
1958	22.7	0.5	0.5	-0.2	22.4	1958	14.3	0.2	0.3	-0.1	14.1
1959	22.4	.5	.6	.9	23.2	1959	14.1	.2	.3	.5.	14.6
1960	23.2	.3	.6	.7	23.6	1960	14.6	.1	.3	.4	14.9
1961	23.6	.7	.6	.5	24.2	1961	14.9	.4	.3	.3	15.3
1962	24.2	.9	.6	.5	25.0	1962	15.3	.5	.3	.3	15.8
1963	25.0	1.0	.7	.6	26.0	1963	15.8	.5	.4	.4	16.4
1964	26.0	1.2	.1	-1.1	25.4	1964	16.4	.6	.4	6	16.0
1965	25.4	1.1		9	24.9	1965	16.0	.6	.4	5	15.7
1966	24.9	1.0		9	24.2	1966	15.7	.5	.4	5	15.3
1967	24.2	.9	.4	9	23.6	1967	15.3	.5	.4	5 0	14.9
1000	23.6 23.8	.9	./	-:1	23.8 24.9	1968	14.9 15.0	.5	.3	U 7	15.0 15.7
1970	23.0	.,		1.1 2.7	24.9	1969 1970	15.0	.5	.4	1.7	17.5
	27.7	1.0	"	3.2	31.1	4074	17.5	.5	.4	2.0	19.6
1971 1972	31.1	1.1	1.0	2.9	34.1	1972	19.6	.6		1.8	21.5
1973	34.1	1.3	1.1	10.9	45.2	1973	21.5	ı ğ		7.0	28.7
1974	45.2	2.6	1.7	20.3	66.4	1974	28.7	1.6	٥.	13.1	42.4
1975	66.4	3.6	2.6	24.4	91.8	1975	42.4	2.2	1.4	15.8	59.0
1976	91.8	4.6	3.6	18.6	111.3	1976	59.0	2.7	1.9	12.2	72.1
1977	111.3	6.8	4.1	10.4	124.5	1977	72.1	4.0	2.2	7.2	81.1
1978	124.5	1.2	4.0	5.5	127.2	1978	81.1	7.0	2.2	3.7	83.4
1979	127.2	22.3	5.0	10.1	154.6	1979	83.4	13.3	2.7	8.1	102.0
1980	154.6	13.3	5.7	11.3	173.5	1980	102.0	7.9	3.1	8.4	115.2
1981	173.5	4.8	6.0	9.7	181.9	1981	115.2	2.8	3.4	6.9	121.6
1982	181.9	11.5	6.4	6.1	193.0	1982	121.6	6.8	3.7	5.0	129.8
1983	193.0		6.3	7.3	194.2	1983	129.8	3.0	3.6	5.1	131.4
1984	194.2	9.6	7.4	3.0	199.4	1984	131.4	5.7	4.3	2.9	135.7
1985	199.4	11.5	7.4	.7	204.3	1985	135.7	6.9	4.3	1.6	139.9
1986	204.3	11.0	7.4	_ <u></u> 2	207.7	1986	139.9	6.5	4.4	l i.ŏ	143.1
1987	207.7	6.3	7.6	-2.1	204.2	1987	143.1	3.7	4.5	7	141.6
1988	204.2	8.2	7.5	-7.7	197.2	1988	141.6	4.9	4.5	-4.5	137.5
1989	197.2	6.4	7.5	-4.7	191.3	1989	137.5	3.8	4.5	-3.4	133.4
1990	191.3	9.7	7.8	-2.4	190.8	1990	133.4	5.8	4.6	-1.5	133.1
1991	190.8	6.5	7.5	-1.3	188.6	1991	133.1	3.9	4.4	-1.0	131.5
		L	i	L	L		L		L	<u> </u>	L

Table 4.1.—Value of the Resource, Additions, and Depletion of All Metals, Current Rent Method I (Rate of Return)

	•		•		
Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958	28.9 29.6 29.8 38.2 38.4 40.9 44.8 50.7 52.1 54.3 56.1 56.3 72.1 70.2 42.6 49.7 (*) (*) (*) (*) (*) (*) (*) (*) (*) (*)	-0.1 -0.3 1.3 2.4 1.0 2.3 1.5 1.2 -1.1 1.5 -6.3 1.8 -1.4 0 5.3 0 () () () () () () () () () ()	0.2 2.4.4.4.4.5.5.6.4.5.7.8.6.7.7.7.6.8.5.4.1.()()()()()()()()()().2.1.8.8.5.4.1.1)()()()()()()()()()()()()()()()()()(	1.0 .5 10.1 -7 -7 .5 3.3 4.1 1.2 -5.8 1.5 5.3 2.7 10.4 4.7 2.7 10.7 -37.6 7.2 -34.4 (°) (°) (°) (°) (°) (°) (°) (°)	29.6 29.8 38.2 38.4 40.9 44.8 50.7 52.1 54.3 49.3 56.1 56.8 56.1 70.2 80.2 80.2 (*) (*) (*) (*) (*) (*) (*) (*) (*) (*)
1991	141.9	6.6	2.2	8.2	154.

<sup>\*</sup> Indicates that the calculated value of the entry was negative, resulting from a negative resource rent. Because a negative resource rent is simply the mechanical result of treating resource rent as a residual after the deduction of other factor payments, the values have been replaced by asterisks. Where the resource rent was negative in the base year (1987) for individual mineral types, the average for the 3 year period, 1987-89, was substituted for the 1987 rent for the purpose of calculating constant-dollar estimates shown in tables B.1 through B.4. Where the 1987-89 average was negative, a base year price of zero was used for the constant-dollar estimates.

Table 4.2.—Value of the Resource, Additions, and Depletion of All Metals, Current Rent Method II (Value of Capital)

[Billions of current dollars]

Year	Opening stock	Additions (2)	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
		(2)	(4)		
			(3)	(4)	(5)
1958 1959 1960 1961 1962 1963 1964 1965 1966 1966 1969 1970 1971 1972 1973 1974 1975 1976 1978 1979 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1988 1989	60.8 61.0 62.7 761.9 65.2 770.4 78.7 82.2 85.0 88.4 92.1 111.5 118.3 153.6 171.3 167.0 148.0 148.0 147.2 147.2 144.5 244.8 251.9 270.1	0.1	0.5.7.7.7.7.8.8.9.8.9.1.1.2.1.3.4.5.1.7.6.4.4.4.7.1.4.6.2.2.9.6.1.4.4.4.7.1.4.6.2.2.9.6.4.3.9.4.	0.8 2.3 1.9 1.8 2.7 2.0 1.4 1.8 2.3 3.6 4.2 4.2 7.8 10.5 10.6 10.6 10.6 10.6 10.6 10.6 10.6 10.6	61.0 62.7 61.9 65.2 70.4 74.0 78.7 82.2 85.0 88.4 92.1 94.8 100.3 107.2 111.5 118.0 153.6 171.3 185.7 167.0 148.0 113.8 115.2 147.2 147.2 147.2 148.5 215.3 224.8 221.3 224.8 225.9 270.1 280.1 280.1

Table 4.3.—Value of the Resource, Additions, and Depletion of All Metals, Present Discounted Value Method Using 3% Discount Rate

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958	52.0	-0.1	0.4	0.7	52.2
1959	52.2	1	.4	1.9	53.6
1960	53.6	-1.7	.5	1.5	52.9
1961	52.9	1.7	.5	1.7	55.8
1962	55.8	3.3	.5 .6 .6 .7	1.7	60.2
1963	60.2	1.3	.6	2.3	63.3
1964	63.3	2.8	.6	1.9	67.3
1965	67.3	2.0		1.7	70.3
1966	70.3	1.91	.7	1.3	72.7
1967	72.7	1.9	.6 .7	1.6	75.6
1968	75.6	1.8		2.1	78.8
1969	78.8	.2	.9	3.0	81.1
1970	81.1	1.9	1.0	3.7	85.8
1971	85.8	3.1	.9	3.8	91.7
1972	91.7	1.1	1.0	3.6	95.4
1973	95.4	1	1.1	6.9	101.2
1974	101.2	1.8	1.1	14.4	116.2
1975	116.2	-1.6	1.2	18.8	132.3
1976	132.3	.6	1.4	16.4	147.9
1977	147.9	2.4	1.3	11.7	160.7
1978	160.7	1.1	1.4	-7.8	152.7
1979	152.7	1.4	1.3	-7.6	145.2
1980	145.2	-1.8	1.1	-13.2	129.0
1981	129.0	-4.1	1.0	-24.6	99.4
1982	99.4	-2.8	.4	-29.6	66.7
1983	66.7	-2.0	.6	37.0	101.1
1984	101.1	-5.2	.9	34.5	129.5
1985	129.5	6.1	1.2	28.2	162.6
1986	162.6	7.8	1.3	21.1	190.2
1987	190.2	7.7	1.8	20.6	216.7
1988	216.7	9.2	2.4	.1	223.6
1989	223.6	12.3	3.1	6.9	239.7
1990	239.7	11.8	3.4	.5	248.6
1991	248.6	11.5	3.3	-1.2	255.6

Table 4.4.—Value of the Resource, Additions, and Depletion of All Metals, Present Discounted Value Method Using 10% Discount Rate

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958 1959 1960 1960 1961 1962 1963 1964 1965 1966 1967 1968 1970 1971 1972 1973 1977 1978 1978 1979 1980 1980 1982 1982 1983 1984 1985 1986 1986	38.3 38.4 39.5 39.0 41.1 46.6 49.6 55.7 55.8 53.6 70.3 74.9 86.4 98.7 110.9 121.0 115.4 110.2 98.3 76.0 51.2 98.3 16.0 16.0 16.0 16.0 16.0 16.0 16.0 16.0	-0.1 -1.1 -1.1 -1.1 -1.1 -1.2 -1.2 -1.2 -1	0.3 3.3 3.3 3.4 4.4 4.5 4.6 6.6 6.6 6.7 7.7 8.9 8.9 9.8 8.7 2.4 4.6 6.8 8.9 1.7 1.7	(4)  0.4  9.9 1.4 1.5 1.8 1.6 1.0 1.3 1.6 2.2 2.8 3.0 7.5 5.3 11.0 12.6 9.2 12.6 9.2 12.6 28.6 28.6 26.6 17.4 17.2 1.3	38.4 39.5 39.0 41.1 44.4 46.6 49.6 51.8 53.6 55.7 58.1 59.8 63.2 67.6 70.3 74.9 86.4 98.7 110.9 121.0 115.4 110.2 98.3 76.0 51.2 78.0 100.2 128.4 100.2 129.4 100.2 129.4 100.2 129.4 179.7 179.
1989	175.7 188.4 195.3	8.7 8.4 8.1	2.2 2.4 2.3	6.1 1.0 3	188.4 195.3 200.8

Table 5.1.—Value of the Resource, Additions, and Depletion of Other Minerals, Current Rent Method I (Rate of Return)

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958	15.0 15.0 15.8 16.6 17.3 18.1 19.3 19.3 19.7 18.0 15.7 18.0 20.4 24.8 26.8 26.6 29.2 24.4 31.7 25.9 26.8 31.4 30.3 32.8 32.8 32.8 32.8	02113335555440 19419347967 2118619423	0.1 4.2 4.2 4.2 4.3 5.3 5.3 4.3 4.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	0 .8 .8 .7 .6 .6 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1	15.0 15.8 16.6 17.3 19.8 19.3 19.8 19.7 13.8 12.1 11.4 12.6 16.5 20.4 24.9 26.8 29.2 31.4 30.3 28.4 30.3 32.8 33.2 33.2 33.9

Table 5.2.—Value of the Resource, Additions, and Depletion of Other Minerals, Current Rent Method II (Value of Capital)

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958	18.8 18.8 19.3 20.0 21.0 21.8 22.5 22.8 23.3 23.9 24.3 23.2 21.4 19.9 18.9	02 22 23 44 66 54 9 22 31 31	0.2 2.2 2.2 2.3 3.3 4.4 4.3 3.2 2.2 3.3 5.6	0 5.7 9.9 7.5 -1.1 2 4.4 -1.0 -1.5 -1.4 -1.5 6.9	18.8 19.3 20.0 21.0 21.8 22.5 22.8 23.3 23.9 24.3 23.2 21.4 19.9 18.9 18.9 24.9
1975 1976 1977 1978 1980 1981 1982 1983 1984 1985 1986 1987 1988	24.9 31.8 37.1 39.7 41.3 45.6 51.3 56.4 58.2 58.5 57.5 58.4 58.7 57.9 56.7 56.9	.4 5.9 1.2 8 4 5 9 9 8 .7 5.0 0 2 7.4 4.4	.9 .8 .7 .9 1.0 .8 .9 .1.0 .9 .9 .9 .9	5.4 2.5 1.2 4.4 7.1 6.6 3.5 2.1 .9 1.1 .7 .1 4 .4 .5	37.1 39.7 41.3 45.6 51.3 56.4 58.5 57.5 58.4 58.7 57.9 56.7 56.9 57.0

Table 5.3.—Value of the Resource, Additions, and Depletion of Other Minerals, Present Discounted Value Method Using 3% Discount Rate

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958 1959 1960 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1987 1988 1988 1989	16.1 16.1 16.5 17.1 19.2 19.5 19.9 20.4 20.8 20.8 17.0 15.7 17.1 27.4 32.0 34.3 35.8 39.7 44.3 51.0 51.5 51.5 50.4 50.5	0.22.1.22.3.3.5.5.5.4.3.20	0.1 2.2 2.2 2.2 2.2 2.3 3.3 3.3 2.2 2.2 2.3 3.4 5.6 6.7 7.8 8.8 9.8 7.7 8.8 8.8 8.8	0 .4 .6 .7 .6 .4 0 .2 .3 .4 -1.3 -1.2 5 4.3 6.2 5.8 8.2 1.5 5.8 8.2 9.9 9.1 1.7 2.3 4.5 5.8 8.3 1.9 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1	16.1 16.5 17.1 18.0 18.7 19.2 19.5 19.9 20.4 20.8 19.9 18.3 17.0 16.2 15.7 17.1 21.4 21.4 32.0 34.3 35.8 35.8 35.8 51.0 51.3 50.5 51.5 50.5 50.5

Table 5.4.—Value of the Resource, Additions, and Depletion of Other Minerals, Present Discounted Value Method Using 10% Discount Rate

[Billions of current dollars]

Year	Opening stock	Additions	Depletion	Revaluation adjustment	Closing stock (1+2-3+4)
	(1)	(2)	(3)	(4)	(5)
1958 1959 1960 1960 1961 1962 1963 1964 1965 1966 1966 1970 1977 1978 1977 1977 1977 1978 1979 1980 1981 1982 1984 1985 1986 1987 1986 1988 1989 1990	11.9 11.9 12.2 12.6 13.2 13.8 14.2 14.4 14.7 15.1 15.3 14.6 12.5 12.5 11.9 11.6 12.6 12.6 12.5 20.4 24.0 24.0 24.0 39.7 39.1 39.6 39.7 39.6	0.1.1.424233324.10.1.1.1.423357.52435.665.4.30.1.4.2.3	0.1 1.1 1.1 1.1 1.2 2.2 2.2 2.1 1.1 1.1 2.2 2.3 3.4 4.5 5.6 6.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5	0 3.55 6.5.3 0 2.3.3 3.66 -1.0 96 3 1.1.1 3.2.6 4.5 3.6 1.7 1.3 2.4 1.5 7 1.7 2.1 3.3 3.3 3.6 1.7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	11.9 12.2 12.6 13.2 13.8 14.2 14.4 14.7 15.1 15.3 14.6 13.5 12.6 12.6 12.6 24.0 25.8 27.1 39.1 39.1 39.2 40.0 40.4 40.1 39.3 39.7 39.7

# Benchmark Input-Output Accounts for the U.S. Economy, 1987

This article presents the 1987 benchmark input-output (1-0) accounts for the U.S. economy.¹ The first part of the article addresses the 1987 benchmark; it discusses the steps taken to speed up the benchmark's completion and then describes some improvements that have been made in the tables. The second part describes the concepts and methods underlying the U.S. 1-0 accounts and illustrates how the 1-0 tables are used.

The 1987 1-0 estimates presented here are in summary form; that is, they are aggregated to 95 1-0 industries from 480-industry The make (production) of commodities by industries is shown in table 1, the use (consumption) of commodities by industries in table 2.1, and the components of value added by industries in table 2.2. The following summary 1-0 tables will be presented in the May SURVEY OF CURRENT BUSINESS: Commodityby-industry direct requirements per dollar of industry output; commodity-by-commodity total requirements, direct and indirect, per dollar of delivery to final use; and industry-by-commodity total requirements, direct and indirect, per dollar of delivery to final use. All of the summary tables, as well as the detailed tables, are available on diskette (see the box on page 90).

This article includes supplementary tables that relate the 1-0 accounts to the national income and product accounts (NIPA's); these tables permit more extensive analyses of the 1-0 estimates. The article also contains two appendixes: Appendix A provides a list of selected Survey articles about the 1-0 accounts; appendix B provides a concordance between the industry codes used in the 1-0 accounts and the 1987 Standard Industrial Classification (SIC) codes.

The 1987 benchmark I-O estimates will be incorporated into the NIPA's during the next comprehensive NIPA revision, which is tentatively scheduled for release in late 1995.

#### The 1987 Benchmark Accounts

In recognition of user needs—expressed, for example, by the interagency Working Group on the Quality of Economic Statistics—the Bureau of Economic Analysis (BEA) has developed a program to speed up the availability of 1-0 accounts.<sup>2</sup> For 1-0 benchmarks, which are prepared primarily from the Census Bureau's quinquennial economic censuses, the long-term goal is to make the 1-0 tables available within 5 years of a census year and within 1 year after release of all economic census data.

For the 1987 benchmark, BEA devised a set of procedures that captured the most important parts of the 1987 economic census data, but that abbreviated the normal time-consuming process of assembling a wide variety of other data for constructing components not based on economic census data. These procedures enabled BEA to complete the 1987 tables faster than otherwise would have been the case and to turn its re-

Ann M. Lawson, Chief of the Interindustry Economics Division, directed the preparation of the 1987 benchmark input-output study and coauthored the article with D.A. Teske. Mark A. Planting, Acting Assistant Division Chief, planned and coordinated division efforts to produce the estimates. Belinda L. Bonds, Chief of the Goods Branch, and Karen Horowitz, Chief of the Services Branch, assisted in the planning and implementation of the study and in the estimation, review, and finalization of the data. Brian D. Kajutti designed the data processing system and coordinated the computer programming and processing efforts.

Staff contributors were William A. Allen, Timothy D. Aylor, Alvin D. Blake, Cheryl Carlson, Esther Carter, Jeffrey W. Crawford, Sergio Delgado, Gary T. Fee, Kara Gordon-Palley, Carole Henry, David Huether, Greg M. Key, Myles J. Levin, Fritz Mayhew, William McCarthy, Donna McComber, Clinton P. McCully, Rhonda E. Monroe, Ted Morgan, Diane E. Nisson, Robert S. Robinowitz, Brooks B. Robinson, Timothy F. Slaper, Patricia A. Washington, Raquel Watson, and Diane Young.

<sup>1.</sup> Earlier benchmarks covered 1947, 1958, 1963, 1967, 1972, 1977, and 1982. BEA also has produced annual 1-0 accounts based on less comprehensive source data. The most recent annual accounts, for 1987, were presented in the April 1992 Survey of Current Business.

<sup>2.</sup> See "Improving the Quality of Economic Statistics: The 1992 Economic Statistics Initiative," Survey 71 (March 1991): 4-5.

sources toward the 1992 benchmark at the earliest possible time.

#### Procedures for the 1987 benchmark

In preparing benchmark I-O accounts, BEA relies heavily on economic census data covering mining, construction, manufacturing, wholesale trade, retail trade, transportation, and selected services. The data are released by the Census Bureau as they are completed, over a period of

time that usually begins about 1 year after the end of the census year and continues for about 30 months. (For example, the planned release dates for the 1992 census year extend from early 1994 through late 1996.) To estimate outputs and inputs and to allocate commodities across industries and final users, BEA must augment the economic census data with data from hundreds of other sources, such as the U.S. Department of Agriculture, U.S. Department of Transportation,

Table A.—Principal Data Sources for Industry or Commodity Outputs, 1987 Benchmark

Industry or Commodity	Source
Agriculture, forestry, and fisheries	U.S. Department of Agriculture farm statistics
Mining	Census Bureau 1987 Census of Mineral Industries
Construction	Census Bureau 1987 Census of Construction Industries, Census of Service Industries, and value of construction put-in-place series
Manufacturing	Census Bureau 1987 Census of Manufactures
Transportation	Interstate Commerce Commission Transportation Statistics Association of American Railroads Freight Commodity Statistics Census Bureau 1987 Census of Transportation, Motor Freight Transportation and Warehousing Survey, and Services Annual Survey U.S. Army Corps of Engineers 1987 Waterborne Commerce of the U.S. Department of Transportation Air Carrier Financial Statistics and National Transportation Statistics
Communications	Trade sources annual reports Federal Communications Commission Statistics of Communication Common Carriers
Utilities	Department of Energy—Energy Information Administration Natural Gas Annual, Electric Sales and Revenue and Financial Statistics of Selected Electric Utilities American Gas Association Gas Facts Census Bureau 1987 Census of Mineral Industries Trade sources financial statements
Wholesale and retail trade	Census Bureau 1987 Census of Retail Trade and 1987 Census of Wholesale Trade
Finance	Federal Deposit Insurance Corporation Statistics on Banking Federal Reserve Board Annual Report Federal Home Loan Bank Board financial reports Office of Thrift Supervision Saving and Home Financing Source Book National Credit Union Administration Yearend Statistics for Federally Insured Credit Unions HSN Consultants, Inc. The Nilson Report Federally sponsored credit agencies annual reports State and Federal regulatory agencies annual reports
Insurance	Trade sources financial statements Health Care Financing Administration private health insurance data A. M. Best and Company Best's Aggregates and Averages Mortgage Insurance Companies of America Factbook
Real estate	National Association of Realtors 1987 Home Sales Yearbook Census Bureau 1987 Census of Housing, 1987 Census of Construction Industries, 1987 Census of Agriculture, and 1987 Enterprise Statistics Internal Revenue Service tabulations of tax returns
Services	Census Bureau 1987 Census of Service Industries Internal Revenue Service tabulations of tax returns Bureau of Labor Statistics tabulations of wages and salaries covered by State unemployment insurance U.S. Department of Education Digest of Educational Statistics
Government enterprises	Federal and State and local government agency reports Office of Management and Budget Federal budget data Census Bureau 1987 Census of Governments
Noncomparable imports	Census Bureau general imports and imports for consumption data Estimated as part of the balance of payments accounts
Scrap	Census Bureau 1987 Census of Manufactures
General government	Estimated as part of the national income and product accounts
Household	Estimated as part of the national income and product accounts
Inventory valuation adjustment	Estimated as part of the national income and product accounts

U.S. Department of Treasury, Office of Management and Budget, and other government agencies and private organizations.

In preparing the 1987 benchmark 1-0 accounts, BEA used standard 1-0 procedures for the estimates of industry and commodity output, except for new construction (see table A). For previous benchmarks, approximately 50 construction industries were analyzed and estimated separately. For the 1987 benchmark, the economic census total for construction output was distributed among only five industries—four related to mining and one "all other" category, which covers the remaining industries within new construction and maintenance and repair construction.

BEA also used standard 1-0 procedures for the estimates of industry intermediate inputs where hard data were readily available—primarily for material inputs from the economic censuses. In previous benchmarks, the standard procedure has been to supplement these economic census data with estimates of other intermediate inputs from hundreds of other information sources. For the 1987 benchmark, BEA estimated these intermediate inputs by first extrapolating 1982 benchmark estimates to 1987 based on the change in industry output, and then by adjusting the extrapolated estimates to be consistent with—or to balance—commodity and industry outputs (see table B).

Value added components were prepared using the same procedures as in the past.<sup>3</sup> Data

for compensation of employees and for indirect business tax and nontax liability are from the U.S. Department of Treasury, Office of Management and Budget, Bureau of Labor Statistics, and Census Bureau; NIPA estimates are also used.

For most final use components—personal consumption expenditures, gross private fixed investment, change in business inventories, exports of goods and services, and imports of goods and services—BEA used the same data and procedures as in the past.<sup>4</sup> Most estimates of personal consumption expenditures and gross private fixed investment were prepared with the commodity-flow method.<sup>5</sup> Inventories held by industries were based on economic census and Internal Revenue Service data. Exports and imports of goods and services were based on data from the Census Bureau and the U.S. balance of payments accounts.

For Federal Government and State and local government final use components, a combination of new and old procedures was used. Total expenditures by type of purchase, for Federal Government and for State and local governments, were obtained from the NIPA's, as in the past. Government purchases by 1-0 commodity were

Table B.—Principal Data Sources and Methods for Estimating Intermediate Inputs and Components of Value Added, 1987 Benchmark

Component	Source or method
Intermediate inputs	For census-covered industries, selected purchased services; in addition, for manufacturing and mining, materials consumed from 1987 economic censuses.  For gas and electric utility industries, selected inputs from trade sources; for agriculture industries, inputs from U.S. Department of Agriculture.  For most remaining industries, 1982 estimate extrapolated by change in industry output and adjusted to balance commodity and industry outputs.
Compensation of employees	For census-covered industries, payroll and benefits from Census Bureau 1987 economic censuses. For noncensus-covered industries, Bureau of Labor Statistics tabulations of wages and salaries covered by State unemployment insurance; other labor income estimated as part of the national income and product accounts.
Indirect business tax and nontax liability.	For Federal excise taxes, collections from Internal Revenue Service; for customs duties, receipts from Monthly Treasury Statement, and for nontaxes (such as fines), receipts from the Budget of the United States, prepared by the Office of Management and Budget.  For State and local governments, receipts from Census Bureau 1987 economic census and annual and quarterly surveys.
Other value added	For most industries, residual method: Total industry output less total intermediate inputs, compensation of employees, and indirect business tax and nontax liability.

<sup>3.</sup> Value added equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). It includes compensation of employees, indirect business tax and nontax liability, and other value added.

<sup>4.</sup> In the 1-0 accounts, change in business inventories covers commodities wherever held; capital purchases—producers' durable equipment and structures—are included in gross private fixed investment; and imported commodities are included with domestically produced commodities in both final use and intermediate use.

<sup>5.</sup> The commodity-flow method generally begins with an estimate of the total supply of a commodity available for domestic uses; it then either attributes a fixed percentage of supply to final users, or it adjusts for intermediate purchases and attributes the residual to final users. For more information, see U.S. Department of Commerce, Bureau of Economic Analysis, *Personal Consumption Expenditures*, Methodology Paper Series MP-6 (Washington, DC: U.S. Government Printing Office, June 1990): 31-34.

estimated using 1982 benchmark 1-0 estimates as weights, a new procedure for the 1987 estimates.

Some procedures used to prepare the 1987 benchmark 1-0 accounts suggest certain caveats. First, the technology represented by the relationships of commodity inputs to industry outputs in the use table (as well as in the commodityby-commodity and industry-by-commodity total requirements tables) is a hybrid of that in 1987 and that represented in the 1982 benchmark 1-0 accounts. Second, other value added was derived as a residual for most industries after subtracting total intermediate inputs, compensation of employees, and indirect business tax and nontax liability from total industry output.6 (For a few industries, estimates of other value added were available from other data sources; for example, other value added estimates for agriculture are from the U.S. Department of Agriculture.) As a result, the other value added component includes estimating errors from other parts of the 1-0 accounts. For studies requiring comparisons of value added components, users may find BEA's estimates of gross product originating by industry more useful.7

#### Improvements and other changes

The 1987 benchmark 1-0 tables differ from previous tables in several respects. The summary 1987 benchmark tables, which begin on page 98, cover 95 1-0 industries instead of the 85 1-0 industries used previously. For the new summary tables, 14 1-0 industries were aggregated into 7, and 12 1-0 industries were disaggregated into 30.8 With one exception, the aggregations involved small, declining industries; new construction and repair and maintenance construction were aggregated because of the abbreviated procedures used for the 1987 benchmark. The disaggregations involved large, growing industries. Appendix B shows the new aggregations and disaggregations of 1-0 industries. (The disaggregated industries

are designated with an alphabetical suffix to the 1982 benchmark 1-0 industry number.)

The industry classification of the 1-0 accounts is now based on the 1987 SIC; the 1982 benchmark tables and subsequent annual tables were based on the 1972 SIC. In addition, the 1987 benchmark tables incorporate all of the 1991 comprehensive NIPA revisions, including the change from gross national product to gross domestic product (GDP).9

#### Introduction to the U.S. I-O Accounts

The 1-0 accounts for the U.S. economy show the production of commodities by each of nearly 500 industries, in the "make" table, and the consumption of commodities by these industries, in the "use" table. Chart 1 illustrates the make and use tables in matrix form in, respectively, the upper and lower panels. The commodity composition of GDP and the industry distribution of value added are also shown in the use table.

BEA prepares benchmark 1-0 accounts primarily from data that the Census Bureau collects every 5 years in its economic censuses for mining, construction, manufacturing, wholesale trade, retail trade, transportation, and selected services, as well as in its census of governments. Data from the U.S. Department of Agriculture, U.S. Department of Transportation, U.S. Department of Treasury, and other government agencies and private sources are also used.

The 1-0 accounts show compactly the relationships between all industries in the economy and all the commodities they produce and use. Estimates for commodities are typically shown at producers' prices. When producers' prices are used, transportation costs and wholesale and retail trade margins are treated as commodities that are separately produced and used by industries (see the section "Definitions and conventions for valuation").

The 1-0 accounts consist of five basic sets of tables: (1) Make, (2) use, (3) commodity-by-industry direct requirements, (4) commodity-by-commodity total requirements, and (5) industry-

<sup>6.</sup> For most 1-0 industries, other value added includes consumption of fixed capital, proprietors' income, corporate profits, and business transfer payments. For banking and for credit agencies other than banks, other value added also includes net interest. For owner-occupied dwellings and for real estate agents, managers, operators, and lessors, it also includes rental income. For the six industries covering the Federal Government and State and local government enterprises, it also includes current surplus less government subsidy payments.

<sup>7.</sup> See Robert P. Parker, "Gross Product by Industry, 1977–90," SURVEY 73 (May 1993): 33–54; and Robert E. Yuskavage, "Gross Product by Industry, 1988–91," SURVEY 73 (November 1993): 33–44.

<sup>8.</sup> The net addition of industries resulting from the aggregations and disaggregations of 1982 1-0 industries is 11. In addition, the rest of the world is no longer technically considered to be an industry because of the change from GNP to GDP as the primary measure of final demand. Thus, there is a net increase of 10 industries in the 1987 benchmark.

<sup>9.</sup> The 1991 NIPA revision was described in the following SURVEY articles: "A Preview of the Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," September 1991; "A Preview of the Comprehensive Revision of the National Income and Product Accounts: New and Redesigned Tables," October 1991; and "The Comprehensive Revision of the U.S. National Income and Product Accounts: A Review of Revisions and Major Statistical Changes," December 1991.

<sup>10.</sup> Estimates for commodities in purchasers' prices can be derived by adjusting for transportation costs and for wholesale and retail trade margins; these costs and margins are included on the diskettes that can be ordered for the 1987 benchmark 1-0 (see the box on page 90).

### CHART 1

#### The U.S. Input-Output Accounts

MAKE TABLE: INDUSTRIES PRODUCING COMMODITIES

				С	OMMODITIES						TOTAL
		Agricultural products	Minerals	Construction	Manufactured products	Transpor- tation	Trade	Finance	Services	Other*	INDUSTRY OUTPUT
	Agriculture					-		_			
	Mining										
	Construction										
	Manufacturing										
INDUSTRIES	Transportation										
	Trade	_				:					
	Finance										
	Services										
	Other*										
TOTAL COMM	ODITY OUTPUT										

#### USE TABLE: COMMODITIES USED BY INDUSTRIES AND FINAL USES

					INDUST	RIES								FINAL U	JSES (GI	DP)			
		Agricul- ture	Mining	Construc- tion	Manufac- turing	Transpor- tation	Trade	Finance	Services	Other'	Total inter- mediate use	Personal consumption expenditures	Gross private fixed investment	Change in business inventories	Exports of goods and services	of goods and	Government purchases	GDP	TOTAL COMMODITY OUTPUT
	Agricultural products																		
	Minerals											l.							
	Construction																		
	Manufactured products																		
ĺ	Transportation												-						
COMMODITIES	Trade																		
ĺ	Finance																		
	Services													İ					
	Other*		<del>  -</del> -		1		<del> </del>												}
	Noncomparable imports		 																
	Total inter- mediate inputs																		
	Compensation of employees													+	•				L.
VALUE ADDED	Indirect business tax and nontax liability													COMMODI			STRY		
	Other value added**												_	INDUSTRY					
	Total	1										1							

 $<sup>\</sup>star$  See text and appendix B.

<sup>\*\*</sup> See text.

U.S. Department of Commerce, Bureau of Economic Analysis

by-commodity total requirements.<sup>11</sup> For the 1987 benchmark, details for the value added components of the use table and of the commodity-by-industry direct requirements table are contained in separate tables. Only the make and use tables are presented in this article. The remaining three tables and their descriptions will be published in the May Survey.

#### The make table

The make table (table 1), in the upper panel of chart 1, shows the dollar value, in producers' prices, of each commodity produced by each industry. In each row, there is one "diagonal" cell that shows the value of production of the commodity for which the corresponding industry has been designated the "primary" producer. Entries in the other cells in the row show the value of production of commodities for which the industry is a "secondary" producer.12 For example, the newspapers and periodicals industry (row 26A) is the primary producer of the newspapers and periodicals commodity (column 26A). It is also a secondary producer of the following commodities: Paper and allied products, except containers (column 24); other printing and publishing (column 26B); rubber and miscellaneous plastics products (column 32); miscellaneous manufacturing products (column 64); and advertising (column 73D). The sum of all entries in a row is the total output by the industry.

The entries in each column of the make table represent the production by both primary and secondary producers of the commodity named at the head of the column. For example, computer and data processing services (column 73A) includes the output by the primary producer—the computer and data processing services industry (row 73A)—and by the following secondary producers: Computer and office equipment (row 51); audio, video, and communication equipment (row 56); scientific and controlling instruments (row 62); finance (row 70A); and other business and professional services, except medical (row 73C). The sum of all entries in a column is the total output of the commodity.

An industry's share of the production of a commodity can be calculated from the values in

the make table by expressing the entries in a given column as a percentage of the column total. From the 1987 benchmark, for example, column 62 in table 1 shows that the production of scientific and controlling instruments (commodity 1-0 62) totaled \$86 billion, of which the scientific and controlling instruments industry (industry 1-0 62) produced \$80 billion, or about 93 percent of the total.

The industry and commodity output totals for this table are estimated primarily from the quinquennial economic censuses, conducted by the Census Bureau (see table A). The economic census data, which are on an sic basis, cover most establishments with payrolls. Information from other government and private sources is used for 1-0 industries not covered by the economic census data, such as finance, insurance, real estate, utilities, and schools and religious organizations. Data from other government agencies are also used to supplement the economic census data for some industries.

BEA makes two adjustments to the economic census data. First, it adds estimates of the output for establishments without payrolls that are not covered by the economic census data. Second, BEA adjusts for misreported tax return information; this adjustment is necessary because in some cases, the Census Bureau data for expenses and receipts reflect tax return records rather than information collected directly from survey reports.<sup>13</sup>

BEA also adjusts the economic census data based on the SIC to the I-O industry classification system to attain greater homogeneity in the input structures for commodities produced by an I-O industry. This type of adjustment is discussed in the section "Definitions and conventions for classification."

#### The use table

The use table (table 2) is presented in two parts: Table 2.1 shows the dollar value, in producers' prices, of each commodity used by each industry and by each final user; table 2.2 shows detail, in producers' prices, on the value added components used by each industry in table 2.1 to produce its output. In table 2.1, entries in a row show the use of the commodity named at the beginning of the row by each industry or final user named at the head of the column. For example, the *commodity* radio and TV broadcasting services

<sup>11.</sup> In the designation of I-O tables, the row is referred to first and the column second. Thus, tables in which commodities appear in the rows and industries in the columns are designated "commodity-by-industry" tables, and tables in which industries appear in the rows and commodities in the columns are designated "industry-by-commodity" tables.

<sup>12.</sup> Primary and secondary products and the classification of industries are discussed further in the section "Definitions and conventions for classification."

<sup>13.</sup> See Robert P. Parker, "Improved Adjustments for Misreporting of Tax Return Information Used to Estimate the National Income and Product Accounts, 1977," SURVEY 64 (June 1984): 17-25.

(row 67) is used by the *industries* radio and TV broadcasting (column 67) and advertising (column 73D), as well as by persons—that is, as part of personal consumption expenditures (column 91).

In table 2.2, industries are shown in the rows, and total output, total intermediate inputs, and the components of value added are shown in the columns. For example, the total output for the radio and TV broadcasting industry (row 67) was \$29 billion, of which \$10 billion was labor compensation, \$1 billion was indirect business tax and nontax liability, \$3 billion was other value added, and \$16 billion was intermediate inputs. The column totals for industries in table 2.1 equal the right-hand row totals in table 2.2. For example, the column total for the radio and TV broadcasting industry in table 2.1 equals the row total for that industry in table 2.2, or \$29 billion. (The relationship between value added and other parts of the use table is depicted in the bottom panel of chart 1.)

In table 2.1, industry uses sum to total intermediate use, shown in the right-hand column of the industries portion, and the final uses sum to gdp, shown in the right-hand column of the final uses portion. The total output of each commodity is the sum of all intermediate uses of the commodity by industries and all sales to final users. The total output of each industry is the sum of all intermediate inputs consumed by the industry—that is, the raw materials, semifinished products, and services that the industry purchases—and of the value added by the industry. For the economy as a whole, the total of all final uses of commodities equals the total value added by all industries, or gdp.

The rows in table 2.1 show the wide variation in the proportion of commodity output that is sold directly to final users. For example, the 1987 use table shows that some commodities, such as apparel (the primary product of industry 1-0 18), were sold almost entirely to final users; therefore, the demand for these commodities is affected primarily by changes in the buying patterns of final users. Other commodities, such as industrial and other chemicals (1-0 27A), were used almost entirely as intermediate inputs. For these commodities, the connection between production and final uses is primarily indirect and can be traced mainly through industrial users' sales of commodities to final users.

The rows also show the wide variation in the direct usage of commodities by industries. For example, the 1987 use table shows that paper and

allied products, except containers (1-0 24), with \$81 billion of commodity output, were used by nearly all industries. The largest user was other printing and publishing (1-0 26B), which used \$15 billion, or 18 percent of total commodity output. In contrast, metal containers (1-0 39), with \$12 billion of commodity output, were used by only 20 industries. The largest user was food and kindred products (1-0 14), which used \$9 billion, or 74 percent of total commodity output.

The rows in table 2.2 show the wide variation in the use of value added inputs by industries to produce their outputs. For example, the real estate and royalties industry (I-O 7IB) required \$280 billion of value added inputs, or 74 percent of its total output; of this, \$27 billion was for labor compensation, \$53 billion was for indirect business tax and nontax liability, and \$200 billion was for other value added. In contrast, the livestock and livestock products industry (I-O 1) required \$15 billion of value added inputs, or 17 percent of its total output; of this, \$3 billion was for labor compensation, \$1 billion was for indirect business tax and nontax liability, and \$11 billion was for other value added.

BEA estimates intermediate inputs in the use table through a number of processes. economic censuses are the primary source for data on intermediate inputs; however, BEA must supplement these data to cover establishments without payrolls and industries not covered by the economic censuses. BEA also separates information for some broader categories of purchases into 1-0 commodities; for example, BEA separates data on purchases of office supplies into purchases of postal service, paper, envelopes, etc., using commodity-shipment proportions and other available information. BEA also uses related information that is available to make 1-0 estimates of inputs for which there is little hard data. For example, fees paid by industries for accounting services are estimated on the basis of industry employment. (Table B shows the principal methods and sources used for the 1987 benchmark.)

BEA estimates the final uses of commodities either by incorporating data into the I-O accounts directly from other sources after minor adjustment, or—for personal consumption expenditures and producers' durable equipment—by employing the commodity-flow method. An example of source data incorporated directly with only minor adjustments is exports of goods, which is obtained from the balance of payments accounts.

In the commodity-flow method, an estimate is first developed for the total supply of a commodity for domestic use. Then either a fixed percentage of total supply is attributed to final users, or the total supply is adjusted for intermediate purchases and the residual is attributed to final users.<sup>14</sup>

An example of commodity flow using the fixed percentage method can be illustrated by examining its use in estimating personal consumption expenditures for polishes and sanitation goods; in this case, approximately 40 percent of total output is allocated to personal consumption expenditures. An example of commodity flow using the residual method can be illustrated by examining its use in estimating personal consumption expenditures for wheat flour. First, an estimate is made for the total domestic supply of wheat flour: Total wheat flour sales by domestic firms, minus wheat flour exports, plus wheat flour imports. Next, an estimate is made for total consumption of wheat flour by intermediate users, including food manufacturers—of bread, cookies, crackers, and frozen bakery productsand restaurants. The wheat flour consumed by all intermediate users is then subtracted from domestic supply; government purchases of wheat flour are also subtracted. The residual is then assumed to be the wheat flour purchased by persons and is included in personal consumption expenditures.

The components of value added (see footnotes 3 and 6) are estimated using different methods. Compensation of employees by industry is estimated directly from source data. Indirect business tax and nontax liability by industry is either estimated directly from source data or is extrapolated based on the 1982 benchmark. For most industries, other value added is derived as a residual after subtracting total intermediate inputs, compensation of employees, and indirect business tax and nontax liability from total industry output (that is, industry sales receipts). For a few industries, estimates of other value added were available from other data sources; for example, other value added estimates for agriculture are from the U.S. Department of Agriculture.

#### Uses of the 1-0 accounts

The 1-0 accounts have a variety of statistical and analytical uses. For example, they can provide an economic framework to assess data quality and completeness, and they can be used as an

analytical economic tool to study industry production. This section describes some uses of the I-O accounts in preparing economic statistics and in studying interindustry relationships within the economy, as well as some of the assumptions analysts must make when they use I-O accounts as an economic tool.

The use of 1-0 accounts requires certain simplifying assumptions. Among these is the assumption that interindustry relationships established in the 1-0 accounts for a benchmark year will remain stable over time and through a range of output levels. Users of 1-0 tables generally must make the assumption that changes in interindustry relationships occur only graduallyfor example, that the interindustry relationships represented in the 1987 benchmark are applicable for a band of years surrounding 1987. Also, 1-0 accounts implicitly assume that all adjustments to a change in final demand are achieved instantly and without price changes. For analyses that require different assumptions, other economic tools may be more appropriate.

Statistical uses.—The 1-0 accounts are used in several ways to prepare economic statistics. For NIPA comprehensive revisions, they are the single most important regular source for estimating the expenditure components of GDP and for parts of several income components. Because the 1-0 accounts have an internally consistent framework that tracks the input and output flows in the economy, any estimating weaknesses in the national economic accounts become readily apparent when they are compared with the 1-0 accounts. For the NIPA revision, the NIPA estimates of personal consumption expenditures and producers' durable equipment are based on the final use components of the 1-0 benchmark accounts, with additional adjustments to reflect the definitional, classificational, and statistical changes incorporated into the NIPA's since completion of the 1-0 accounts.15

The I-O benchmark accounts are also used as a framework to weight and calculate index numbers for price, volume, and value. For example, BEA uses the I-O-based detailed estimates of producers' durable equipment to weight producer price indexes for calculating the constant-dollar NIPA estimates of producers' durable equipment.

Analytical uses.—The 1-0 accounts are an important analytical tool because they show the interdependence among various producers and

<sup>14.</sup> See Personal Consumption Expenditures, pages 31-34.

<sup>15.</sup> For more information on the 1-0 accounts and their relationship to the NIPA's, see Personal Consumption Expenditures, pages 17 and 31-34.

consumers in the economy. Because of their industry detail, the 1-0 accounts can be used for analyzing a wide range of related empirical issues.

The main contribution of the 1-0 accounts to economic analysis is that they permit analysts to measure the repercussions that changes in final uses have on industries and commodities, both directly and indirectly. For example, an increase in consumer demand for motor vehicles will initially have a direct effect that will increase the production of cars, which in turn will have indirect effects, including increased steel production. Increased steel production will in turn require more chemicals, more iron ore, more limestone, and more coal. Increased car production will also require more upholstery fabrics, and the increased production of these fabrics will require more natural fibers, more synthetic fibers, and more plastics. Further, increased production of synthetic fibers will require more electricity and containers, and so on.

These repercussions are only a few in the continuing chain resulting from the initial increase in consumer demand for motor vehicles. Through 1-0 analysis, it is possible to trace this chain throughout the economy, measuring the direct and indirect effects on the output of each industry and commodity. Within the 1-0 accounts, these effects are quantified in coefficient tables. These tables can be used, for example, to determine the impact of a disaster on the economy or, when supplemented with additional information, to compute the effect on employment of an increased demand for U.S. exports. The Federal Emergency Management Agency, the U.S. Department of Defense, and the Census Bureau, among others, have found the 1-0 accounts to be useful for such studies.

When the U.S. I-O accounts are augmented with regional data, they can show economic impacts by region. For example, a State Government agency has used regional I-O accounts to estimate the economic effects of a high-speed intercity rail project on the State's economy, and a private consulting group has used regional I-O accounts to analyze the impact of a sports stadium on the local economy. BEA's Regional Economic Analysis Division helps planners and analysts estimate the regional impacts of project and program expenditures by industries.<sup>16</sup>

#### Definitions and conventions for classification

The 1-0 accounts use two classification systems, one for industries and another for commodities, but both classification systems generally use the same 1-0 numbers and titles. In the 1-0 industry classification system, output typically represents the total output of all establishments in each industry, regardless of whether the commodities produced are primary to the industry (that is, make up the largest proportion of the establishment's output) or are secondary (that is, primary to another industry). In the 1-0 commodity classification system, output represents the total output of the product or service, regardless of the classification of the establishments that produce it. This section discusses first the 1-0 industry classification system and then the 1-0 commodity classification system.

The 1-0 industry classification system is based on the sic system, which classifies establishments into industries based on their primary products or services. The Establishments are defined as economic units that are generally at a single physical location where business is conducted or where services or industrial operations are performed. Establishments are classified into an sic industry on the basis of their primary products or services. The system is based on their primary products or services.

The I-O industry classification system adjusts the SIC system primarily to attain a greater degree of homogeneity in the structure of inputs to the commodities produced by an I-O industry. The adjustments, which affect I-O-defined primary and secondary production, are called, in I-O terminology, redefinitions and reclassifications. The I-O system also provides for other industries and "special" industries that the SIC does not; these are discussed later in this section.

In a redefinition, the input purchases and the output sales receipts for a particular secondary product or service are moved from the sic-defined industry to the i-o-defined industry. The input structure of the redefined product or service is assumed to be the same as that for the i-o industry in which the product or serv-

<sup>16.</sup> A typical 1-0 table in the Regional Input-Output Modeling System is derived mainly from two data sources: (1) The U.S. benchmark 1-0 accounts and (2) BEA's four-digit SIC county wage-and-salary data. For more information, see U.S. Department of Commerce, Bureau of Economic Analysis, Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS 11), Second Edition (Washington, DC: U.S. Government Printing Office, 1992).

<sup>17.</sup> The 1-0 two-digit and six-digit industry categories and their composition in terms of the 1987 SIC codes are given in appendix B.

<sup>18.</sup> For a discussion of the SIC system, see Office of Management and Budget, Executive Office of the President, Standard Industrial Classification Manual: 1987, (Springfield, Virginia: National Technical Information Service, 1987): 11–18.

<sup>19.</sup> Fewer 1-0 adjustments to sic-defined industries may be necessary for the 1997 and subsequent benchmark 1-0 accounts when the North American Industry Classification System (NAICS) is completed. The proposed NAICS is expected to be a common international system—covering the United States, Canada, and Mexico—for grouping establishments by similarity of production process. For a discussion, see Jack E. Triplett, "Economic Concepts for Economic Classifications," Survey 73 (November 1993): 45–56.

ice is primary; this assumption is called, in 1-0 terminology, the commodity-based technology assumption.<sup>20</sup>

An example of a redefinition involves restaurants located in hotels. Both inputs and outputs of these restaurants are moved from the hotels and lodging places industry (the industry of the establishment where the product or service occurs) to the eating and drinking places industry (the industry where the product or service is primary). The input structure related to the output of restaurants located in hotels is assumed to be similar to that for the eating and drinking places industry.

Redefinitions are used in the following cases:

- Construction work (both new construction and maintenance and repair) performed by all industries is redefined to the construction industries. Construction work performed by and for nonconstruction industries is referred to as "force-account construction."
- Manufacturing in trade and service industries is redefined to the appropriate manufacturing industries.
- Retail trade in service industries is redefined to the retail trade industry. Services in the trade industries are redefined to service industries. Some services are also redefined within service industries.
- Manufacturers' wholesale sales of purchased goods (resales) are redefined to the wholesale trade industry.
- Rental activities of all industries are redefined to the real estate and rental industries.
- The preparation of meals and beverages in most industries is redefined to the eating and drinking industry.

Redefinitions affect a number of industries; however, for most industries, the total output involved is small. Examples of industries with large dollar amounts of redefinitions of secondary products or services out of or into the industry are automobile and repair services (1-0 75), with \$131 billion of total industry output, of which \$40 billion has been redefined out to a number of other industries and \$1 billion has been redefined

in from a number of other industries; eating and drinking places (I-O 74), with \$209 billion of total industry output, \$34 billion out and \$½ billion in; wholesale trade (I-O 69A), with \$424 billion of total output, \$7 billion out and \$69 billion in; and retail trade (I-O 69B), with \$421 billion of total output, \$25 billion out and \$46 billion in.

In a reclassification, the I-O system creates a secondary product or service from an SIC-defined primary product or service. For these reclassified products and services and for all other SIC-defined secondary products and services that are not redefinitions, the I-O system moves the output receipts from the SIC-defined product or service class to the I-O-defined primary product or service class within the same I-O industry. In this case, total output for the affected industry remains unchanged; however, output for each affected commodity group changes.

An example of a reclassification involves the newspaper industry. The sic defines the primary product or service classes of this industry as newspaper subscriptions and sales and newspaper advertising. The 1-0 system considers the primary product or service of the newspaper industry to consist of newspaper subscriptions and sales. It considers the advertising component to be secondary and, therefore, moves advertising receipts or output to the advertising commodity group. Total output for the 1-0 newspaper industry remains unchanged, but output for the newspaper commodity is reduced, and output for the advertising commodity is increased.

Reclassifications affect about 70 commodities; however, for the most part, the dollar values involved are not very large. Examples of industries with large dollar amounts of reclassified sales receipts are the newspapers and periodicals industry (I-O 26A), for which \$20 billion of its \$36 billion total commodity output is moved to the advertising commodity (I-O 73D); and the crude petroleum and natural gas industry (I-O 8), for which \$12 billion of its \$80 billion total commodity output is moved to the gas production and distribution (utilities) commodity (I-O 68B).

When the total requirements tables are calculated, inputs and outputs of each 1-o-defined secondary product or service are moved to their particular 1-o-defined commodity groups. The input structures of secondary products or services are assumed to be similar to those for the industries in which the products or services are primary; this assumption, in 1-o terminology, is called the industry-based technology assumption (see footnote 20).

<sup>20.</sup> The 1-0 commodity-based and 1-0 industry-based technology assumptions are important when estimating the total-requirements tables. The significance of the assumptions is discussed elsewhere in the economic 1-0 literature. See, for example, United Nations, System of National Accounts, 1993, prepared under the auspices of the Inter-Secretariat Working Group on National Accounts (New York: United Nations, 1993): chapter 15, in particular pages 367–70; and Ronald E. Miller and Peter D. Blair, Input-Output Analysis: Foundations and Extensions (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1985): 149–99.

As mentioned earlier, the I-O system also provides for other industries and "special" industries that the SIC does not. The I-O system replaces the SIC-defined government-owned establishments with two industries to cover government enterprises as defined in the NIPA's—Federal Government enterprises (I-O 78) and State and local government enterprises (I-O 79). The I-O system also provides "special" industries, such as general government (I-O 82), in which output and value added are defined as general government compensation of employees, and the inventory valuation adjustment (I-O 85), which is a NIPA adjustment to derive GDP (see appendix B for a complete listing of I-O special industries).

The *I-O* commodity classification system is closely related to that for industries. Each commodity receives the code of the industry in which the commodity is the primary product. This code is then used to group production of the commodity in the industry in which it is the primary product with its production in other industries in which it is a secondary product.

In several cases, the 1-0 commodity classification differs from that specified by the industry classification. If the same commodity is the primary product of more than one sic industry, all of the 1-0 commodity is assigned the 1-0 commodity number that corresponds to the 1-0 industry that is the largest producer of the commodity. This results in there being no commodity output for the following 1-0 commodity groups: Forest products (commodity 2.0701); knit outerwear mills (commodity 18.0201); knit underwear and nightwear mills (commodity 18.0202); knitting mills, not elsewhere classified (commodity 18.0203); fertilizers, mixing only (commodity 27.0202); cold-rolled steel sheet, strip, and bars (commodity 37.0104); steel pipe and tubes (commodity 37.0105); secondary nonferrous metals (commodity 38.0600); Federal electric utilities (78.0200); State and local government passenger transit (commodity 79.0100); and State and local government electric utilities (commodity 79.0200).

#### Definitions and conventions for valuation

Transactions in commodities are typically valued in 1-0 accounts at producers' prices, which exclude distribution costs (transportation costs and wholesale and retail trade margins), but include excise taxes collected and paid by producers. Transportation costs and trade margins are shown as separate purchases by the users of the commodities. The sum of the producers' value,

transportation costs, and trade margins equals the purchasers' value.

The 1-0 tables do not trace actual flows of commodities to and from wholesale trade and retail trade. If trade were shown as buying and reselling commodities, industrial and final users would make most of their purchases from a single source—trade. To show the relationship between the production of commodities and their purchase by intermediate and final users, commodities are shown as if they move directly to users, bypassing trade. The margin associated with a commodity is shown as a separate purchase of the commodity from wholesale trade and retail trade by users. Transportation costs are the freight charges paid to bring the commodity from the producer to the user, either intermediate or final. All transportation costs are included in the transportation rows (rows 65A-E) of the use table.

Wholesale trade has one primary product—distributive services for the sale of goods to final users other than for personal consumption expenditures. Examples of distributive services provided by wholesalers include merchandise handling, stocking, selling, and billing.

Wholesale trade output is measured one way for merchant wholesalers, agents, and brokers and another way for manufacturers' sales branches. For merchant wholesalers, agents, and brokers (on own account), wholesale margin is measured as wholesale sales receipts less the cost of goods sold plus taxes collected by the distributor. For manufacturers' sales branches, it is measured as expenses plus taxes collected by the sales branches.

Nonmargin output occurs when the whole-sale trade service is purchased separately from the commodity. Nonmargin output includes, for example, a sales commission paid to a whole-saler acting as a broker. Nonmargin output is measured as the sum of expenses on goods sold by manufacturers' sales offices, commissions on goods sold by agents and brokers, and customs duties. Wholesale trade output—both margin and nonmargin—is included in the wholesale trade row (row 69A) of the use table.

Retail trade has one primary product—distributive services for the sale of goods to persons. Retail output is defined as the retail margin, which is measured as retail sales less the

Text continues on page 90.

Table C.—Input-Output Commodity Composition of Final Demand, in Producers' [Millions of dollars]

	Perso	nal consump	otion expend	litures	Gros	s private f	ixed invest	ment	Chang	ge in busin	ess invent	ories	Ехро	rts of good	is and sen	rices	Imp	orts of goo	ods and se	rvices
Commodity number	Producers' prices	Transpor- tation costs	Whole- sale and retail trade margins	Purchas- ers' prices	Produc- ers' prices	Trans- porta- tion costs	Whole- sale and re- tail trade margins	Purchas- ers' prices	Produc- ers' prices	Trans- porta- tion costs	Whole- sale and re- tail trade margins	Pur- chasers' prices	Produc- ers' prices	Trans- porta- tion costs	Whole- sale and re- tail trade margins	Purchas- ers' prices	Produc- ers' prices	Trans- porta- tion costs	Whole- sale and re- tail trade margins	Purchasers' prices
1 2 3 3 4 4 4 5 4 6 5 6 5 6 5 5 5 5 5 6 6 5 5 6 6 6 6	3,090 15,882 3,763 647 647 607 1388 80 10 10 10 10 10 10 10 10 10 10 10 10 10	2 2 2 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0 404 404 1,551 3,626 2288 247 0 0 3 113 113 113 115 115 115 115 115 115 1	29,349 1,596 61,963 1,326 63,318 25,544 14,864 10 20 21,35,789 81,638 325,144 122,178 20,180 48,030 11,177 31,456 67,896 47,411 363,015 148,974 6,430 14,152 31,365 31,365 31,365 31,365 31,365 31,365 31,365 31,365 31,365 31,365	7,509 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 1222 175 1060 1060 1060 1060 1060 1060 1060 106	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8,985 3,632 37,637 7,770 5,183 0 0 0 0 4,389 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	33 608 446 787 361 8,115 1,745 2,132 1,070 1,285 398 2,181 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000000000000000000000000000000000000000	156 0 0 0	00 00 00 00 00 00 00 522 59 00 00 110 2.164	1,050 14,630 5364 5364 5364 6128 3233 6666 7777 1,019 1,407 3,303 166 669 2,123 2,634 2,839 6,063 540 2,335 540 2,335 4,182 1,660 13,167 1,217 1	457	748 690 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	300 7,209 10,186 1,958 2,496 0 134 161 37 37 1,275 85 12,598 1,0830 49 22,398 475 211 31 1,225 211 31 1,225 211 31 1,225 211 31 1,225 211 31 31 31 31 31 31 31 31 31 31 31 31 3	-5,711 01 09 -986 -1,763 015,533 01 -161 -3,078 00 01 -3,978 -744 -253 00 00 -78,696 -2,066 00 00 00 00 00 00 00 00 00 00 00 00			-5,711 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

costs associated with all purchases by each industry or category of final uses.

<sup>\*</sup> Less than \$500,000 in absolute value.

1. The values shown in the producers' prices columns for I-O's 65 and 69 are for direct purchases of trade and transportation services. The corresponding values in the use table include the trade margins and transportation

#### and Purchasers' Prices, 1987 Benchmark 1

Federal	Government		national	Federal G	overnment p	ourchases, n	ondefense	State a	nd local gov educ	ernment pur ation	chases,	State and local government purchases, other				
Produc- ers' prices	Trans- portation costs	Whole- sale and retail trade margins	Purchas- ers' prices	Produc- ers' prices	Trans- portation costs	Whole- sale and retail trade margins	Purchas- ers' prices	Produc- ers' prices	Trans- portation costs	Whole- sale and retail trade margins	Purchas- ers' prices	Produc- ers' prices	Trans- portation costs	Whole- sale and retail trade margins	Purchas- ers' prices	Com- modity number
2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(0000   170   000   180   000	⊕000-1-1000098002€534254⊕€20997€686-125259820899181181555294467782830000000000000000000000000000000000	2 0 0 0 3 4 45 6 14 41 41 41 6 14 14 15 7 18 9 9 14 16 16 16 16 16 17 17 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	100	©00009440001000001601631001045000301000007000000000000000000000000000	()000017000171002();1126()1481306611772()6912005139331212447736()512265404445120000000000000000000000000000000	111 112 113 114 115 115 115 115 115 115 115 115 115	30 2200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	050004000001010004781286340152139001100007000010555100001132005048000000000000000000000000000000000	2551000(?)000000000000000000000000000000000	32 3400 0 0 0 0 10.091 5.912 7.4 271 6.3 3.768 6.4 2.2 1.158 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	548 368 419 756 0 111 756 0 112 116 2 114 43 838 347 754 438 347 125 784 1,466 1,635 213 2 778 4,142 1,260 210 135 136 1,274 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,287 1,288 1,274 1,288 1,274 1,288 1,274 1,288 1,288 1,274 1,288 1	11000000000000000000000000000000000000	39300()060011076583866158956246105660941253()()43112371234410220000000000000000000000000000000	575 528 -416 756 0 0 13 13 13 16 19,816 19,816 19,816 11,543 11,5	1 1 2 3 3 4 5 4 6 7 7 8 9 + 110 1 12 13 3 1 15 6 1 17 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Table D.—Input-Output Commodity Composition of Personal Consumption Expenditures, in Producers' and Purchasers' Prices, 1987 Benchmark
[Millions of dollars]

Producers' prices	Transpor- tation costs	Wholesale and retail trade margins	Purchasers' prices	NIPA code/ I-O number	Producers' prices	Transpor- tation costs	Wholesale and retail trade margins	Purchasers' prices	NIPA code/ I-O number	Producers' prices	Transpor- tation costs	Wholesale and retail trade margins	Purchasers' prices
rchased for	off-premise	consumpt	ion (n.d.)	17. Cleaning	, storage, and	repair of c	lothing and	d shoes (s.)	41	1,350	12	1,431	2,793
211,016 1,722 11,383 2,584	<b>7,811</b> 19 2,585 48	111,975 644 9,323 1.346	330,802 2,385 23,291 3,978	Total 72A 72B	<b>8,328</b> 62 8,266	0 0 0	<b>0</b> 0 0	<b>8,328</b> 62 8,266	64 69B 81	415 27 8	1 0	498 0	1,419 914 27 122
2	1	1	. 4		18. Jeweir	y and watch	es (d.)		32	Other durab	le house fu	ımishings (d	i.)
60 5 1,201 –516	9 0 285 0	43 0 603 0	112 5 2,089 –516	Total	<b>12,698</b> 1,599 11,624 -525	27 4 23 0	13,505 1,463 11,926 116	<b>26,230</b> 3,065 23,573 -409	Total	<b>17,946</b> 4,776 1,371	108 6	4,006 1,095	<b>36,260</b> 8,891 2,472 2,495
urchased me	eals and be	verages (n.	d.)	19. Other mi	sc. personal.	clothing and	d lewelry s	ervices (s.)	22+23	1,569	23	995 48	2,587 119
172,236 36 93 169,638	<b>0</b> 0 0	<b>0</b> 0 0	172,236 36 93 169,638	Total 72B 73C	<b>9,443</b> 9,428 15	0 0	<b>0</b> 0 0	<b>9,443</b> 9,428 15	33+34 35 36	203 127 358 1,146 80	5 3 12 17 (*)	202 109 375 917 53	410 239 745 2,080 133
2,434 35	0	0	2,434 35	21.	Toilet article	s and prepar	rations (n.c	i.)	42 44+45	1,495 248	32 2	1,827 247	3,354 497
ished to em	ployees (inc	cluding mili	itary) (n.d.)	Total	17,370 69	405	12,203	29,979 135	48	176	3 2	113	1,108 291 170
6,464 158 174 25	200 2 42 (*)	899 8 61 4	<b>7,563</b> 167 276 30 7,090	29B 32 42 54 58	15,497 20 589 427 221	309 1 25 12 13	10,795 17 347 256 175	26,601 37 960 695 408	51 52 53 54 55	237 16 81 104 1,035	3 (*) 1 3 34	311 17 56 72 1,033	551 32 138 179 2,102
	i		L						61	35	3	32	1,331 69 860
•				<del></del>					64	1,268	98		2,874 200
107 138 470	000	0	107 138	72A 72B 76	16,078 311 13,513 2,254	0	0 0 0	16,078 311 13,513 2,254	80 81	725 –677	173 0	1,439	1,571 763
7. Tobac	co products	(n.d.)		24. Owne	r-occupied no	onfarm dwell	ings-space	rent (s.)		г	Γ .	<del>, ,</del>	19,330
<b>20,774</b> 20,774	<b>121</b> 121	<b>13,651</b> 13,651	<b>34,546</b> 34,546	Total 71A	<b>321,380</b> 321,380	<b>0</b> 0	<b>0</b> 0	<b>321,380</b> 321,380	16 17 18	267 81 3	5 2 0	265 81 3	536 165 6 14,990
2. Shoes an	d other foot	wear (n.d.)		25. Te	nant-occupied	i nonfarm d	wellings-rei	nt (s.)	26B 31	79 2	0	63	142
12,264 2,801 9,463	60 34 26	13,703 3,465 10,213	<b>26,027</b> 6,299 19,703	71B	120,032 120,032	0	0	<b>120,032</b> 120,032	32 35 37 41	435 150 11 114	) 3	155 11 121	875 308 25 237
			L	<u> </u>				·	64 69B	675 3	58 0	919 0	1,651 3
			essories,	71A	3,764	0	0	3,764	80 81	161 (*)	38	170 21	369 20
<b>50,938</b> 660	358 7	<b>47,121</b> 666	<b>98,416</b> 1,333		,	ner housing	(s.)	L	34. Cleaning	and polishin	g preparati	ons, and mi	scellaneous
43,726 98	200 1	40,297 121	84,223 220	Total	16,808	0		16,808	Total	20,022	950	r	33,095
166	20	184	369					L	3 9+10	56 35	32		76 86 135
2,997 222	21 14								19	84	1	39	124 8,963
-158	0	0 203	2 45	22+23 81	18,091 17,882 208	108 108 0	16,270 16,011 259	<b>34,469</b> 34,001 468	25 268 27A	292 23 178	7 0 21	148 11 125	447 34 324 1,506
boys' cloth	ing and acc (n.d.)	cessories, e	except shoes	30. Kit	chen and oth	er househol	d appliance	es (d.)	29B	9,358	561	5,904	15,823 294
28,267 95 27,345 69 34 750 101	177 1 159 1 1 8 7	92 20,404 73 33	188 47,908 142 68 1,271	Total	12,837 18 54 445 712 11,380 222 6	324 (*) 1 14 7 301 2	8,620 9 36 351 651 7,408 120 45	21,781 27 91 809 1,370 19,089 344 50	32 36 42 53 55 58 64	237 327 431 74 807 823 305	5 52 3 2 8 11	119 154 185 51 777 577	361 534 620 127 1,592 1,411
-126	0	90	-36		ina, glassward	. tableware	and utans	ils (d.)	35	. Stationery a	nd writing	supplies (n.	đ.)
· · · · · ·				II 31. 31.	2144411411	-, <del></del>		(-1)	JF <b>-</b>	0.000	400	1	40.000
d clothing is	ssued to mi	litary perso	nnel (n.d.)	Total	<b>6,520</b> 381	121	8,090	14,732	Total	3,882 1,086	135 36 55 39 (*)	6,005 1,378	10,022 2,500
	211,016 1,722 11,383 2,584 2 194,576 60 5 1,201 -516  172,236 36 933 169,638 2,434 35  shed to em 6,464 158 470 7. Tobacc 20,774 20,774 20,774 2,801 1,9463 (1) 2,801 1,9463 (2) 2,801 1,9463 (3) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,801 1,9463 (1) 2,907 2,158 2,158 2,158	costs  chased for off-premise  211,016 1,722 11,383 2,584 48 2,584 48 2,585 60 9 1,201 285 -516 0  crchased meals and be  172,236 93 169,638 0 2,434 35 0  shed to employees (inc. 6,464 200 158 2,434 42 25 6,107 156  croduced and consume  714 107 0 7. Tobacco products  20,774 121 20,774 121 2. Shoes and other fool 12,264 2,801 138 9,463 9,463 9,463 9,463 9,463 9,463 9,463 9,463 9,638 0 7. Tobacco products  20,774 121 2. Shoes and other fool 12,264 2,801 9,463 9,8 3,141 166 20 20 20 21 22 21 21 21 22 21 21 21 22 21 21 21	Costs	Costs	Chased for off-premise consumption (n.d.)   17. Cleaning   211,016   7,811   111,975   330,802   72A	Chased for off-premise consumption (n.d.)   17. Cleaning, storage, and   17. Cleaning, storage, and	thased for off-premise consumption (n.d.)  211,016	Costs   Cost	chased for off-premise consumption (n.d.)  211,016 7,811 11,975 330,802 1728 8,322 0 0 0 8,328 11,722 11,333 2,585 9,323 2,3291 728 5,266 0 0 0 8,226 12,584 48 1,346 100,01 294,576 4,861 100,01 294,576 1,201 285 603 2,689 -516 0 0 -516 6 1,201 285 603 2,689 -516 0 0 -516 6 1,201 285 603 2,689 64 11,624 23 11,528 23,573 168,833 0 0 0 172,236 736 0 0 0 172,236 736 0 0 0 172,236 736 0 0 0 172,236 736 0 0 0 172,236 736 0 0 0 172,236 736 0 0 0 189,833 2,436 0 0 0 2,685 168,833 0 0 0 189,833 2,436 0 0 0 2,685 15,589 1,201 2,201	Costs   Cost	chased for off-premise consumption (n.d.)  211 (1019	theses for otherwise consumption (n.d.)  7. Fig. 11,015  7. Fi	thased for otherwise consumption (n.d.)  17. Cleaning, storage, and repair of clothing and shoes (a.)  18. June 11, 11, 11, 11, 11, 11, 11, 11, 11, 11

Table D.—Input-Output Commodity Composition of Personal Consumption Expenditures, in Producers' and Purchasers' Prices, 1987 Benchmark—
Continued

[Millions of dollars]

Total	used autos (d.)  14,209  14,209  ehicles (d.)  747  10,453  728  6,382  19  1,315  0  2,756  6, and other pa  11  11  11  16  166	28,280 28,280 45,039 35,342 5,317 4,381
Total         63,318         0         0         63,318         Total         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         38,652         0         0         0         38,652         0         0         0         38,158         0         0         0         38,158         0         0         0         38,158         0         0         0         38,158         0         0         38,158         0         0         0         38,158         0         0         0         38,158         0	0 14,209 0 14,209 ehicles (d.) 747 10,453 728 6,382 19 1,315 0 2,756 s, and other pa 174 11,036 1 117 16 166	28,280 28,280 45,039 35,342 5,317 4,381
Total	ehicles (d.)  747 10,453 728 6,382 19 1,315 0 2,756  5, and other pa  74 11,036 1 117 16 166	<b>45,039</b> 35,342 5,317 4,381
Total   25,544   0   0   25,544   68B   25,544   0   0   0   25,544   68B   25,544   0   0   0   25,544   77A   165,479   0   0   165,479   61   3,982   77A   77A   77A   29,510   0   0   0   29,510   73. Tires, tubes, accessorie   77A   29,510   29,510   29   19   120   29,510   29   29   29   29   29   29   29   2	747 10,453 728 6,382 19 1,315 0 2,756 8, and other pa 174 11,036 1 117 16 166	35,342 5,317 4,381
Total   165,479   0   0   165,479   81     1,825	19 1,315 0 2,756 <b>6, and other pa</b> 174 11,036 1 117 16 166	5,317 4,381
Total   20,800   0   0   20,800   14,672   79     6,128   0   0   0   0   14,672   77A     29,510   0   0   29,510   120   29,510   120   29,510   120   29,510   138   41   62   241   20+21   83   2   33   118   18   18   18   18   18   1	174 11,036 1 117 16 166	rts (d.)
79 6,128 0 0 6,128 Total 29,510 0 0 29,510 29,510 29,510 0 0 29,510 29,510 120 29,510 29,510 20 29,510 20 29,510 20 29,510 20 29,510 20 29,510 20 29,51	1 117 16 166	
40. Fuel oil and coal (n.d.)       Total     6,102     305     4,794     11,201       7     138     41     62     241       20+21     83     2     33     118     Total     21,305     0     0     21,305     50	16 166	<b>25,238</b> 238
7	5,364	346 12,719
20+21   03   2   33   110    Total   21,305   0   0   21,305    30   29	(*) 10 5 279 3 18	21 563 50
31   5.498   239   4.690   10.356   700   21,000   55   330	1 154 3 290 4 625	310 622 1,275
68C 192 0 0 192 61. Brokerage charges and investment counseling (s.) 56 38 58 38 58 3133	(*) 26 97 1,857	65 4,139
Total 51.879 0 0 51.879 70A 23,398 0 0 23,398 81 479	0 2,107	5,348 -457
66	rking, storage, 3.)	rental, and
42. Domestic service (s.) Total 67,759	0 202 0 202	<b>67,961</b> 67,886
Total         8,242         0         0         8,242         Total         18,349         0         0         18,349         75         67,684         76         533         77         77         77         77         77         77         18,349         0         0         18,349         75         77         77         77         77         77         18	0 202 0 0 0 0	57 57 18
63. Services furnished without payment by financial intermediaries except life insurance carriers and private 75. Gasoline 25. Gasoline	oil (n.d.)	
	229 28,460 229 28,460	<b>85,355</b> 85,355
65C 114 0 0 114 707 35,713		
69B 12 0 0 12 64. Expense of handling life insurance (s.) Total 2,016	0 0	2,016
72B 4,131 0 0 4,131 Total 41,459 0 0 4,459 73B 92 0 0 0 4,1459 77B	0 0	2,016
73C 4,712 0 0 0 4,712 78 6,269 0 0 4 6,269 14 65. Legal services (s.) 77. Motor vehicle i	o o o	15,522
45. Drug preparations and sundries (n.d.) Total 31,069 0 0 31,069 70B 15,522	ŏ ŏ	
Total 27.762 232 19.012 47.006 73B 31,069 0 0 31,069 79. Mass transit s	ystems (s.)	
27A 74 4 35 112 66. Funeral and burial expenses (s.) 10131 4,083 4,583 29A 23,958 164 16,617 40,738	0 0	<b>4,583</b> 4,583
31 24 1 1 17 41 Total 6,259 23 1,105 7,387 32 323 12 227 561 36 466 21 1,081 1,569 54 1 1 1 2 24 36 80. Taxical	(s.)	
55	0 0	<b>2,359</b> 2,359
46. Ophthalmic products and orthopedic appliances (d.) 82. Railway	(s.)	<del></del>
Total 2,688 13 5,337 8,038 67. Other personal business (s.)  Total 576 654 576	0 0	<b>576</b> 576
58 194 3 284 480 62 548 2 1,014 1,564 66 203 0 0 12,087 65A 65A 576 65A		
70B 37 0 0 37 72B 1,230 0 0 1,230 Total 1,364	0 0	1,364
Total 99,923 0 0 99,923 73C 1,331 0 0 1,331 0 661		1,364
77A 99,923 0 0 99,923 77B 7,541 0 0 7,541 84. Airline  48. Dentists (s.) 80 62 0 0 62 Total 19,935	(8.)	19 935
Total	ŏ ŏ	<b>19,935</b> 19,935
77A 26,416 0 0 26,416 70. New autos (c.) 85. Other intercity tra		
Total 73,642 1,898 17,934 93,474 Total 2,061	ol o	2,061

Table D.—Input-Output Commodity Composition of Personal Consumption Expenditures, in Producers' and Purchasers' Prices, 1987 Benchmark—
Continued

[Millions of dollars]

NIPA code/ I-O number	Producers' prices	Transpor- tation costs	Wholesale and retail trade margins	Purchasers' prices	NIPA code/ I-O number	Producers' prices	Transpor- tation costs	Wholesale and retail trade margins	Purchasers' prices	NIPA code/ I-O number	Producers' prices	Transpor- tation costs	Wholesale and retail trade margins	Purchasers' prices
65A 65B	177 155	0	0	177 155	<u> </u>	92. Radio an	d television	repair (s.)		79 80	6,007 (*)	0 2	0 1	6,007 3
65C 65E	133 1,596	0	0	133 1,596	Total	<b>3,510</b> 13	0	0	3,510 13	81	214	0	401	615
	87. Boo	ks and map	s (d.)		72B 73C	3,168 329	0	0	3,168 329			her education	<del></del>	
Total	<b>7,887</b> 7,875	<b>149</b> 149	<b>4,968</b> 4,924	<b>13,004</b> 12,948	93.	Flowers, seed	ls, and pott	ed plants (	n.d.)	<b>Total</b>	<b>33,788</b> 33,788	0	<b>0</b> 0	<b>33,788</b> 33,788
69B 81	13 -1	0	0 44	13	Total	<b>4,128</b> 3,988	<b>590</b> 588	<b>4,432</b> 4,423	<b>9,149</b> 8,998	104. Nurs	sery, elementa	ary, and sec	ondary sch	ools (s.)
88. Mag	azines, newsį	papers, and	sheet mus	ic (n.d.)	73C 80	130 10	0 2	0 9	130 21	Total	<b>14,496</b> 14,496	<b>0</b> 0	<b>0</b> 0	<b>14,496</b> 14,496
Total	12,020 11,741	<b>444</b> 400	<b>5,039</b> 4,808	17,503		95. Motion	picture the	aters (s.)		105. 0	Other private	education a	nd research	n (s.)
26B 81	421 -142	400 44 0	231 0	16,949 695 –142	Total 65D	<b>3,443</b> 12	0	0	3,443 12	Total	13,692	0	0	13,692
	ondurable to	vs and spoi	rt supplies	(n.d.)	76 77B	3,362 70		Ŏ O	3,362 70	76 77B	365 13,328	0	0	365 13,328
Total	11,514	157	13,674	25,345		ate theaters				10	6. Religious a	and welfare	activities (s	i.)
1 3 13	134 319 406	9 0 4	19 257 397	162 576 807	Total	profit institut	oons (excep	ot atnietics)	(S.) 4,087	Total	<b>75,284</b> 75,284	<b>0</b> 0	<b>0</b> 0	<b>75,284</b> 75,284
17 24 26B	41 137 67	1 6 0	46 138 60	88   281 127	76 77B	3,938 149			3,938 149	10	8. Foreign tra	vel by U.S.	residents (	S.)
27A 32	235 62	37	338 79	610 143		97. Spe	ctator spor	ts (s.)		Total	<b>33,932</b> 1,741	0	<b>0</b>	<b>33,932</b> 1,741
53 55 58	6 100 186	(*)	128 169	12 229 357	Total	<b>3,366</b> 1,942		0	<b>3,366</b> 1,942	65D 80	9,058 23,134	0	0	9,058 23,134
63 64	1,472 8,339	2 7 89	2,146 9,892	3,624 18,320	778	1,424		ŏ	1,424	109. E)	penditures a	broad by U.	S. residents	(n.d.)
72B 81	11 -1	0	0	(1)	98	. Clubs and f	raternal org	anizations	(s.)	Total	3,888	0	0	3,888
90. Wheel go	ods, sports a	and photograsure aircra	raphic equip	oment, boats,	76 778	7,098 5,056 2,041			<b>7,098</b> 5,056 2,041	80	3,888	11=12= 4 24=4	0	3,888
Total	14,023	146	11,406	25,575		L				Total	ditures in the	omited stat	es by nonre	-30,323
13 19	693 508	3	681 549	1,376	Total	Commercial p 6,051	<del></del>		6,051	83	-30,323	Ŏ	Ö	-30,323
32 33+34 42	91 217 194	30 4 8	245 173	466 375	65C 76	1,171 4,880	) 0	) 0	1,171 4,880		onal remittano		to nonresid	<del></del>
43 58 60	461 38 316	5	228 5 88	44		100. Pari-m	utuel net re	ceipts (s.)	L	Total	- <b>813</b> -813	0	0	- <b>813</b> -813
61 62	7,025 111		3,720	10,806 241	Total	3,010 3,010			<b>3,010</b> 3,010		Personal con	sumption e	xpenditures	
63 64 73C	1,214 2,490 505	27	1,770 3,270	5,787		)1. Other recr	<u> </u>	<u> </u>		Total	2,566,099	20,949	485,204	3,072,252
81	159			586	Total	56,808	68	1,105	57,982		Durable	commoditi	es (d.)	
91. Video	and audio pro musica	ducts, com		ipment, and	1 3 4	969 778 647	1 1	28		Total	249,778	6,528	158,931	415,237
Total	23,508	254	19,356	43,118	65A 65C	896 313			896 313		Nondurabl	e commodit	ies (n.d.)	
33+34 51 56	37 3,052 16,948	43		5,006	65D 66	10,711	0	ıl d	10,711	Total	673,095	14,328	323,840	1,011,264
57 58	212 1,407	1 13	118 806	331 2,226	67 70B 72A	1,326 39 2,170	) (	) (	39			ervices (s.)		ι
64 73A 80	861 855 115	0	322	1,177	72B 73C	3,614 4,553		313	3,614 4,866	Total	1,643,226	93	2,433	1,645,752
81	22				76 77A 77B	20,114 3,529 802	) (	) (	0,020	))				
*Less than \$	1	<u> </u>	1	<u> </u>	<u> </u>	neumotion evo	<u> </u>	1	and secondhand	and between r	<del></del>	<u> </u>	L	L

<sup>\*</sup>Less than \$500,000.

NOTE.—The identifying numbers for the personal consumption categories are those used in table 2.4 in the National Income and Product Accounts of the United States, Volume 2, 1959—88.

Personal consumption expenditures of scrap, used and secondhand goods (I-O 81) from other final demand components are shown net of corresponding sales. (Sales among persons cancel.) However, the trade margin has been measured on all sales of used goods—both among persons

and between personal consumption expenditures and other final demand categories—to the extent that such sales pass through trade channels. The trade margin is usually the largest part of the value of used goods in purchasers' prices.

Table E.—Input-Output Commodity Composition of Producers' Durable Equipment Expenditures, in Producers' and Purchasers' Prices, 1987 Benchmark

[Millions of dollars]

No							-								
Total			tation	and retail trade				tation	and retail trade				tation	and retail trade	
State	5.	Computers	and peripher	al equipmen	t				0		26.	Agricultural	machinery,	except tracto	rs
S. Office equipment except computers   S. General industrial, includingly materials handling, equipment   S. General industrial, includingly materials handling, equipment   S. General industrial, includingly materials handling, equipment   S. General industrial, including materials handling, equipment   S. General industrial, industrial, including materials handling, equipment   S. General industrial, indu	51	29,809	74	5,878	35,761	73B	640			640	44+45 58	3,134 11	92	1,169 1	4,395 12
Second Color	6	3. Office equi	pment excep	t computers		15. Gen	eral industria		materials ha	ndling,	73B		0		
23	Total	4,259	52						1,855		27.	Construction	machinery.	except tracto	ors
Total	51	3,455	45	1,605	5,106	46	5,029	97		6,159		1			
Total	73B	232	Ō	Ŏ	232	49	10,238		683	11,011	44+45	6,847	261	1,247	8,354
Total   40,915   108   1,582   42,666   1,582   1,58		L			100	73B	667		0	667	81				
13	Total	1			42.050		rical transmi	ssion, distrib	ution, and in	ndustrial		28. Mining	and oilfield	machinery	
State	13	198	0	Ō	198		1								
Second   Control   Contr	51	213	2		256					<b>13,203</b> 927	44+45	801	29	123	952
Column   C	58 62	2,643 9,546	22 12	137	2,801 9,619	53	5,878	106	820	6,803	73B	45		0	45
Column	66 73B	4,389 1,585	Ō	Ō	1,585	73B					01	-20	U	150	130
Total	81				47		18. Trucks, I	ouses, and to	ruck trailers			29. Servic	e industry m	achinery	<u>-</u>
Total		8.	Instruments	3			26,585 21,685				50			1	35
Production   Product   P	Total			<b>2,129</b> 2,129	<b>13,856</b> 13,324	59B	6,591	55	323	6,969	52 73B			0	
State   Production   Product   Pro	73B	502 30			502 (		,,,,,,,	10 11111		.,,-	81	18	0	0	18
Total   8,835   30   2,520   11,185   63   41,246   63   63,653   24   2,093   7,770		9. Photocopy	and related	l equipment		Total	24.652		2 121	20 026		30. Electr	ical equipme	nt, n.e.c.	
62					11.185	59A	41,248	1,063	2,775	45,086			51		
Total   1,811   27   171   2,009   44   0   0   0   64   45   1,824   45   1,824   1,811   27   171   2,009   43   2,322   3,33   2,302   27   177   2,500   61   1,265   61   61   1,265   61   61   1,265   61   61   1,265   61   61   1,265   61   61   1,265   61   61   1,265   61   61   61   61   61   61   61	62	2,635	6	427	3,067		L	L	040	10,230	54	391		40	441
Total   1,811   27   171   2,009   31   3,412   1,811   27   1,71   2,009   43   3,13   3,142   1,811   27   1,71   2,009   31   3,412   1,811   27   1,71   2,009   31   3,412   1,811   2,555   1,955   3   4,141   3,141	73B	304		0	304 44				<del></del>	<del></del>	58	91	5	16	113
Total		11. Fabric	ated metal r	products	<u> </u>	22+23	179		32	213	73B	270		0	270
27A   795   0   0   0   795   37   13   0   0   13   39   21   14   13   0   0   13   39   21   1   1   23   44   28   21   1   1   23   44   28   24   1   1   28   28   24   44   28   24   44   28   24   44   28   24   44   28   24   44   28   24   24	Total	T		r	7.129	62	876	2	6	883					
39	5+6 27A	446 795	23 0	21	489 795	01				-303			I		
1,931   106   378   2,414   61   1,301   2   153   1,456   44.445   2,167   32   1,808   4,007   738   2,444   81   356   0   13   369   44.445   2,167   32   1,808   4,007   738   3,807   2,217   171   2,009   4,45   3,807   32   3,808   4,007   2,77   0   0   0   4,45   4,445   4,45	39	21	1	ĺĺ	23		1	Ships and bo	1	<del></del>	17	1,087			1,554
Total   13,442   168   2,137   15,747   47   12,651   165   1,977   14,783   48   12,651   165   1,977   14,783   81   40   114   118	42	1,931	106	378	2,414	61	1,301	2	153	1,456	32	62	(7)		73
Total   1,811   27   171   2,009   4345   33   7   1,322   32   32   32   32   32   32   32	73B	264	ŏ	ö	264	81	356	0	13	369	61	598	40	217	855
Total   1,811   27   171   2,009   61   1,285   31   7   1,322   738   32,302   27   171   2,500   64   0   0   0   -556   81   -7   0   13   66   81   -7   0   13   66   81   -7   0   13   66   81   -7   0   13   66   81   -7   0   13   66   81   -7   0   13   6   81   -7   13   13   13   13   13   13   13   1		12. Enç	gines and tu	rbines			Т	,	<del>,</del> -	1	/3B	445	0	0	445
Total   13,442   168   2,137   15,747   14,793   15,109   125   2,631   17,865   17,38   18   18   18   18   18   18   18	Total	1,811	27			61	1,285	31	7	1,322	<u> </u>	Sala of aquin	mont comp	avaluding o	
Total   13,442   168   2,137   15,747   12,651   165   1,977   14,793   48   228   3   46   278   73B   558   0   0   0   114   118   118   14   0   114   118   118   14   15,756   125   2,631   15,756   125   2,631   17,865   18,802   17,865   18,802   17,865   18,802   17,865	73B	64	0	0	64		33 -7	8			ļ	T	1	<del></del>	
Total         13,442         168         2,137         15,747         7 total         15,756         125         2,701         18,582         33. Residential (landlord durables)           47         12,651         165         1,977         14,793         22+23         15,109         125         2,631         17,865         17,865         17,865         17,865         17,865         18,832         17,865         18,832         17,865         18,832         17,865         18,832         18,832         18,832         18,832         18,882         18,832         18,832         18,832         18,832         18,832         18,832         18,832         18,882         18,832         18,832         18,832         18,832         18,832         18,832         18,832         19,966         5,864         18,832         18,832         19,968         5,864         18,832         18,832         19,968         18,832         18,832         19,968         18,832         18,832         19,979         1,966         1,832         18,832         19,979         1,966         1,842         1,832         1,966         1,842         1,832         1,966         1,842         1,832         1,966         1,842         1,966         1,842         1,842 <t< td=""><td></td><td>1</td><td>L</td><td>ļ</td><td></td><td></td><td>24. Fu</td><td>miture and fi</td><td>ixtures</td><td></td><td>81</td><td></td><td></td><td></td><td>-2,520 -2,520</td></t<>		1	L	ļ			24. Fu	miture and fi	ixtures		81				-2,520 -2,520
47	Total		· · ·	· · · · · ·	15.747	Total		125	2,701	18,582		33. Resider	ntial (landlor	durables)	
73B 558 0 0 10 558 118	47	12,651	l 165	1,977	14,793	73B	664	0	] 0	664	Total	3.807	92	1,966	5.864
14. Special industry machinery, n.e.c.   Total   16,182   187   2,683   19,052   81   3,913   99   2,400   6,411   56   65   (°)   19   85   85   81   14,615   179   2,463   17,257   49   81   23,400   6,411   56   65   (°)   19   85   3,736   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   41   61   62   63,71   63,71   41   61   62   63   63,71   63,71   63,71   63,71   63,71   64	73B	558	0	0	558	81	-16	0	69	53	17	1,282		521	1,832
Total 16,182 187 2,683 19,052 32 78 3 18 99 2,400 44 445 99 99 2,400 6,411 6,371 44 445 99 99 2,400 6,411 6,371 41		1	L	<u> </u>	113			25. Tractors	1		32 54	15 2,266	61	1,409	23 3,736
10,102   1		<del>,</del>	<del></del>	<del> </del>	40.000	44+45	3,925	99	2,347	6,371	11				
48 14,615 179 2,463 17,257 856 Total 278,028 4,144 47,598 329,771	32	78		18	99	81			52			Producer	s' durable e	quipment	
	48	14,615	179	2,463	17,257 856						Total	278,028	4,144	47,598	329,771
			L	1	1 000	Categories and	those upod in	lable 5.9 in the	Mational Incom	and Product		1	<u> </u>	<u> </u>	<u> </u>

\*Less than \$500,000

 $\label{thm:note:model} \mbox{Note.--The identifying numbers for the producers' durable equipment}$ 

categories are those used in table 5.8 in the National Income and Product Accounts of the United States, Volume 2, 1959-88.

Text continues from page 83.

cost of goods sold plus the taxes collected—if any—by retail trade establishments.

Retail trade margins also apply to some purchases of goods by other final users; for example, retail trade margins apply to some purchases of personal computers by business and are included in gross private fixed investment. All retail trade margins are included in the retail trade row (row 69B) of the use table.

Imports of goods and services, a component of final uses, are treated in one of two ways, depending on whether or not they are comparable to U.S. commercially produced goods and services. Those that are comparable are included in the use table along with the distribution of the output of their domestic counterparts. The U.S. domestic port values of imported commodities are shown as negative entries in the imports of goods and services column of final use (column 95), so that the row total for a commodity equals the domestic output of that commodity. Other imported goods and services-those not comparable to U.S. commercially produced goods and services, and those purchased and used abroad by U.S. residents—are shown in the use table row for noncomparable imports (row 80).

Examples of noncomparable imports are coffee beans and parakeets; an example of goods purchased and used abroad by U.S. residents is food purchased by U.S. military personnel stationed abroad. The total value of all noncomparable imports is shown as a single negative entry in the imports of goods and services column (column 95).

Imports of goods by commodity (the entries in column 95) are valued at U.S. domestic port values plus duties. Imports of services are valued at producers' values. The entries for transportation imports and for trade imports include adjustments that convert the total of all commodity imports of goods and services to a foreign port value equivalent. This adjustment is made for conceptual consistency between the 1-0 accounts and the NIPA's and the balance of payments accounts.

Exports of goods and services—both by commodity and as a total—are valued in U.S. producers' prices, which are considered to be equivalent to U.S. domestic port values. Exports are also a component of final uses.

Inventory change, another component of final uses, represents the change in inventory of each commodity, wherever held, over the benchmark year. It is stated at book value—that is, at its

#### Data Availability

The estimates from the 1987 benchmark I-O accounts are available on diskette at two-digit (95 I-O industries) and six-digit (480 I-O industries) levels. They can be ordered for "transactions," for "total requirements," or for "all." "Transactions" includes the six-digit make table, use table, direct requirements coefficients table, and estimates by commodity of transportation costs and of wholesale and retail trade margins. "Total requirements" includes six-digit industry-by-commodity or commodity-by-commodity coefficients. Products specifying "all" contain all above data, but for the two-digit I-O industry level only. Each product includes information on the mathematical derivation of the coefficients tables. The BEA accession numbers and the prices for these products are listed below.

For further information about 1-0 products or when ordering by MasterCard or Visa, call the Interindustry Economics Division at (202) 606–5585. To order by mail, write to the Public Information Office, Order Desk, BE-53, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230. Specify the item, accession number, and price of the product(s) being ordered. For foreign shipment, add 25 percent to the total amount of the order. A check or money order payable to "Bureau of Economic Analysis" must accompany all written orders. Be sure to include a return address.

Item	BEA accession number	Price
Diskettes (3 1/2 inch HD)		
1987 benchmark six-digit, transactions (two diskettes)	51-94-40-001	\$40
1987 benchmark six-digit, industry-by-commodity total requirements (two diskettes)	51-94-40-002	40
1987 benchmark six-digit, commodity-by-commodity total requirements (two diskettes)	51-94-40-003	40
1987 benchmark two-digit, all	51-94-40-004	20
1987 benchmark commodity composition of NIPA final demand	51-94-40-005	20
1987 benchmark personal consumption expenditures and producers' durable equipment by NIPA		
category	51-94-40-006	20

BEA'S 1987 benchmark I-O accounts, at both the two-digit and six-digit levels, will also be available on CD-ROM through the Commerce Department's National Economic, Social, and Environmental Data Bank (NESE-DB) CD-ROM. The NESE-DB is produced quarterly in February, May, August, and November. Call the Office of Business Analysis at (202) 482–1986 for more information or to place an order. The NESE-DB is also available for public use at over 900 Federal Depository Libraries.

original cost—in the use table. The inventory valuation adjustment, which converts inventory change from book value to replacement cost, is shown as a single entry for the total of all commodities (row 85, column 93).

#### Supplementary tables

Four supplementary tables, which can be used with the five basic sets of I-O tables, are provided with this article. Three tables (tables C–E) cover the I-O commodity composition of NIPA final demand, of NIPA personal consumption expenditures, and of NIPA producers' durable equipment; a fourth table (table F) reconciles I-O exports of goods and services and imports of goods and services with NIPA estimates.

The commodity composition tables are necessary as bridges between the 1-0 accounts and the NIPA's because the two sets of accounts are based on different valuations and definitions. In the 1-0 accounts, final use categories are expressed in producers' prices; in the NIPA's, final demand categories are expressed in purchasers' prices. Also, the definitions of 1-0 final use categories differ from those of the NIPA final demand categories. Before the 1-0 total requirements tables can be used to measure and analyze the changes in commodity or industry output requirements arising from changes in the level or composition of NIPA final demand, NIPA final demand categories must be converted to equivalent 1-0 final use categories. That is to say, the analysis should be consistent with 1-0 final use commodities that are valued at producers' prices for the 1-0 year, with separate entries for transportation costs and trade margins.

Table C shows the 1-0 commodity composition in 1987 of each NIPA category of final demand

Table F.—Relation of Exports and Imports in the Input-Output Accounts to the National Income and Product Accounts, 1987 Benchmark

[Millions of dollars]

	1987
Exports of goods and services, NIPA	363,952 6,781
Reexports	8,875
Plus: Statistical revisions, BPA	
Imports of goods and services, NIPA	507,050 6,781 8,875
Plus: Statistical revisions, BPA	-952

NIPA National income and product accounts BPA Balance of payments accounts

in producers' and purchasers' prices. It provides a bridge between 1-0 commodities in producers' prices and NIPA final demand categories in purchasers' prices. For each 1-0 commodity within a category of NIPA final demand, the table shows the transportation costs and trade margins included in the purchasers' prices.

Table D shows the I-O commodity composition in 1987 of each NIPA category of personal consumption expenditures (NIPA table 2.4) in producers' and purchasers' prices. It provides a bridge between I-O commodities in producers' prices and NIPA personal consumption categories in purchasers' prices. For each I-O commodity within a NIPA category, the table shows the transportation costs and trade margins included in the purchasers' prices.

Table E shows the I-O commodity composition in 1987 of each NIPA category of producers' durable equipment purchases (NIPA table 5.8) in producers' and purchasers' prices. It provides a bridge between I-O commodities in producers' prices and NIPA producers' durable equipment categories in purchasers' prices. For each commodity, the table shows the transportation costs and trade margins included in the purchasers' prices. This table is useful for analyses relating the effects of changes in investment on industry and commodity output.

Table F reconciles the I-O estimates of exports and imports of goods and services with those in the NIPA's. The same adjustments are made for both exports and imports; therefore, there is no net effect on total gdp. The adjustments are necessary because the NIPA's—unlike the I-O accounts—include in imports the U.S. merchandise that is returned to the United States from other countries and in exports the foreign merchandise that is reexported from the United States to other countries. The NIPA's also exclude definitional and statistical revisions to the balance of payments accounts between NIPA comprehensive revisions.

Appendixes A and B and tables 1 and 2 follow.

I-O Input-output accounts

<sup>21.</sup> U.S. merchandise returned consists of domestically produced goods that were previously exported to other countries for processing or assembly, or both, and then returned to the United States. An example would be articles of metal that are manufactured in the United States, then exported for further processing abroad, and then returned to the United States for more processing. Reexports consists of commodities of foreign origin that were previously imported into the United States and then exported from the United States in substantially the same condition as when imported. An example would be imported foreign-made monitors that are purchased by U.S. personal computer manufacturers, joined with U.S.-made consoles, and then exported to a third foreign country.

# Appendix A.—Chronological List of Selected Survey of Current Business Input-Output Articles

- 1. Morris R. Goldman, Martin L. Marimont, and Beatrice N. Vaccara, "The Interindustry Structure of the United States: A Report on the 1958 Input-Output Study," November 1964.
- 2. "Industrial Impact of the 1966 Housing and Commercial Building Decline," November 1966.
- 3. "Input-Output Structure of the U.S. Economy: 1963," November 1969.
- 4. Allan H. Young and Claiborne M. Ball, "Industrial Impacts of Residential Construction and Mobile Home Production," October 1970.
- 5. Beatrice N. Vaccara, "An Input-Output Method for Long-Range Economic Projections," July 1971, Part I.
- 6. Philip M. Ritz and Eugene P. Roberts, "Industry Inventory Requirements: An Input-Output Analysis," November 1973.

- 7. "The Input-Output Structure of the U.S. Economy: 1967," February 1974.
- 8. Irving Stern, "Industry Effects of Government Expenditures: An Input-Output Analysis," May 1975.
- 9. Philip M. Ritz, "The Input-Output Structure of the U.S. Economy, 1972," February 1979.
- 10. Philip M. Ritz, Eugene P. Roberts, and Paula C. Young, "Dollar-Value Tables for the 1972 Input-Output Study," April 1979.
- 11. "The Input-Output Structure of the U.S. Economy, 1977," May 1984.
- 12. "Benchmark Input-Output Accounts for the U.S. Economy, 1982," July 1991.
- 13. "Annual Input-Output Accounts of the U.S. Economy, 1987," April 1992.

[The titles in boldface represent the industries used for the summary version of the 1987 tables. An asterisk preceding an SIC code indicates that the SIC industry is included in more than one 1-0 industry. For a description of the systems used in the 1-0 accounts, see the section "Definitions and conventions for classification."]

	I-O industry number and title	Related 1987 SIC codes			I-O industry number and title	Related 1987 S codes
	AGRICULTURE, FORESTRY, AND FISHERIES		14	Food and	1 kindred products:	
	·			14.0101	Meat packing plants	. 2011
	Livestock and livestock products: 1.0100 Dairy farm products	024,*019, *0259, *029		14.0102	Sausages and other prepared meat products	
	1.0200 Poultry and eggs	0251-3, *0259, *019,	li .	14.0105 14.0200	Poultry slaughtering and processing  Creamery butter	
	, 🕠	*0219, *029		14.0300	Natural, processed, and imitation cheese	. 2022
	1.0301 Meat animals	0211-4, *0219, *019, *0259, *029	ŀ	14.0400	Dry, condensed, and evaporated dairy products	
	1.0302 Miscellaneous livestock	0271-3, *0279, *019,	H	14.0500 14.0600	Ice cream and frozen desserts	
		*0219, *0259, *029	}	14.0700	Canned and cured fish and seafoods	. 2091
	Other agricultural products:			14.0800	Canned specialties	
	2.0100 Cotton	0131, *019, *0219,	ll	14.0900 14.1000	Canned fruits, vegetables, preserves, jams, and jellies Dehydrated fruits, vegetables, and soups	
	2.0201 Food grains	*0259, *029 *011, *019, *0219,	li .	14.1100	Pickles, sauces, and salad dressings	. 2035
	2.0201 Food grains	*0259, *029	l	14.1200	Prepared fresh or frozen fish and seafoods Frozen fruits, fruit juices, and vegetables	
	2.0202 Feed grains	*011, *0139, *019,		14.1301 14.1302	Frozen specialties, n.e.c.	
	2.0203 Grass seeds	*0219, *0259, *029 *0139, *019, *0219,		14.1401	Flour and other grain mill products	. 2041
	2.0200 Grass seeds	*0259, *029		14.1402	Cereal breakfast foods	. 2043 . 2045
	2.0300 Tobacco	0132, *019, *0219,	H	14.1403 14.1501	Prepared flour mixes and doughs  Dog and cat food	
	2.0401 Fruits	*0259, *029   0171-2, 0174-5,	ll	14.1502	Prepared feeds, n.e.c	. 2048
	2.0401 Fruits	*0179, *019, *0219,		14.1600	Rice milling	. 2044 . 2046
		*0259, *029		14.1700 14.1801	Wet corn milling	
	2.0402 Tree nuts	0173, *0179, *019, *0219, *0259, *029		14.1802	Cookies and crackers	. 2052
	2.0501 Vegetables	0134, *0139, 016,		14.1803	Frozen bakery products, except bread	. 2053
	-9	*019, *0219, *0259,	1	14.1900 14.2001	Sugar  Candy and other confectionery products	
	2.0502 Sugar crops	*029, *0119 0133, *019, *0219,		14.2002	Chocolate and cocoa products	. 2066
	2.0002 Sugai Gops	*0259. *029	lŀ	14.2003	Chewing gum	
	2.0503 Miscellaneous crops	*0119, *0139, *019,	[[	14.2004 14.2101	Salted and roasted nuts and seeds	
	2.0600 Oil bearing crops	*0219, *0259, *029 0116, *0119, *0139,		14.2102	Malt	2083
	2.0000 Oil bearing crops	*0219, *0259, *029		14.2103	Wines, brandy, and brandy spirits  Distilled and blended liquors	2084 2085
	2.0701 Forest products	*018, *019, *0219,	<u> </u>	14.2104 14.2200	Bottled and canned soft drinks	2065
	2.0702 Greenhouse and nursery products	*0259, *029 *018, *019, *0219,		14.2300	Flavoring extracts and flavoring syrups, n.e.c	2087
	2.0702 Greenhouse and horsely products	*0259, *029		14.2400	Cottonseed oil mills	
	We will be a second or the	3231, 323		14.2500 14.2600	Soybean oil mills	
	Forestry and fishery products: 3.0001 Forestry products	081, 083, 097		14.2700	Animal and marine fats and oils	2077
	3.0002 Commercial fishing	091		14.2800 14.2900	Roasted coffee	
	Agricultural, forestry, and fishery services:			14.2900	Manufactured ice	
	4.0001 Agricultural, forestry, and fishery services.	0254, *0279, 071-2,		14.3100	Macaroni, spaghetti, vermicelli, and noodles	2098
		075-6, 085, 092		14.3201 14.3202	Potato chips and similar snacks	
	4.0002 Landscape and horticultural services	078			• •	2000
	MINING		15		products: Cigarettes	011
6	Metallic ores mining:			15.0101 15.0102	Cigars	
•	5.0000 Iron and ferroalloy ores	101, 106		15.0103	Chewing and smoking tobacco and snuff	213
	6.0100 Copper ore	102		15.0200	Tobacco stemming and redrying	214
	6.0200 Nonferrous metal ores, except copper	103-4, 109, *108	16		nd narrow fabrics, yarn and thread mills:	
	Coal mining:				Broadwoven fabric mills and fabric finishing plants	
	7.0000 Coal	122-3, 124		16.0200	Narrow fabric mills	224
	Crude petroleum and natural gas:			16.0400	Thread mills	
	8.0000 Crude petroleum and natural gas	131-2, *138	17	Miecallar	neous textile goods and floor coverings:	
-10	Nonmetallic minerals mining:		II ''		Carpets and rugs	227
	9.0001 Dimension, crushed and broken stone		1	17.0600	Coated fabrics, not rubberized	2295
	9.0002 Sand and gravel	144   145		17.0700 17.0900	Tire cord and fabrics	2296   2298
	9.0004 Nonmetallic mineral services and miscellaneous minerals	*148, 149		17.1001	Nonwoven fabrics	
	10.0000 Chemical and fertilizer minerals	147		17.1100	Textile goods, n.e.c.	
	CONSTRUCTION		18	Apparel:		
				18.0101	Women's hosiery, except socks	2251
+12	Construction:	15-17, 6552		18.0102	Hosiery, n.e.c.	2252
	11.0000 New and maintenance and repair	1 *138		18.0201 18.0202	Knit outerwear mills	
	11.0602 Petroleum, natural gas, and solid mineral exploration	*138, *108, *124, *148		18.0203	Knitting mills, n.e.c.	2259
	11.0603 Access structures for solid mineral development	*108, *124, *148		18.0300	Knit fabric mills	2257-8
	12.0215 Maintenance and repair of petroleum and natural gas wells.	*138		18.0400	Apparel made from purchased materials	231-8, *3999
			19		neous fabricated textile products:	
	MANUFACTURING			19.0100	Curtains and draperies	2391
	Ordnance and accessories:			19.0200 19.0301	Housefurnishings, n.e.c	2392 2393
	13.0100 Guided missiles and space vehicles	3761		19.0302	Canvas and related products	2394
	13.0200 Ammunition, except for small arms, n.e.c	3483	I	19.0303	Pleating and stitching	2395
	13 0300 Tanks and tank components	1.3795				
	13.0300 Tanks and tank components 13.0500 Small arms	3795 3484 3482	li .	19.0304 19.0305	Automotive and apparel trimmings	

	I-O industry number and title	Related 1987 SIC codes		I-O industry number and title	Related 1987 codes
21	Lumber and wood products:		31	Petroleum refining and related products:	]
	20.0100 Logging	241	11	31.0101 Petroleum refining	291 2992
	20.0200 Sawmills and planing mills, general	2421		31.0103 Products of petroleum and coal, n.e.c.	2992
	20.0400 Special product sawmills, n.e.c.			31.0200 Asphalt paving mixtures and blocks	2951
	20.0501 Millwork		ll	31.0300 Asphalt felts and coatings	
	20.0502 Wood kitchen cabinets	2434	ll .	one of the control of	
	20.0600 Veneer and plywood	I 2435-6	32	Rubber and miscellaneous plastics products:	
	20.0701 Structural wood members, n.e.c	2439	11	32.0100 Tires and inner tubes	301
	20.0702 Pretabricated wood buildings and components	2452	ll .	32.0200 Rubber and plastics footwear	
	20.0703 Mobile homes	2451	ll	32.0300 Fabricated rubber products, n.e.c.	306
	20.0800 Wood preserving	2491	11	32.0400 Miscellaneous plastics products, n.e.c	
	20.0901 Wood pallets and skids	2440	11	32.0600 Gaskets, packing, and sealing devices	3053
	20.0904 Reconstituted wood products	2499	il	52.0000 Caskets, packing, and scaling devices	1 0000
	21.0000 Wood containers, n.e.c.	2441, 2449	33+34	Footwear, leather, and leather products:	
			11	33.0001 Leather tanning and finishing	311
3	Furniture and fixtures:		H	34.0100 Boot and shoe cut stock and findings	313
	22.0101 Wood household furniture, except upholstered	2511	11	34.0201 Shoes, except rubber	
	22.0102 Household furniture, n.e.c	2519	1	34.0202 House slippers	3142
	22.0103 Wood television and radio cabinets	2517	11	34.0301 Leather gloves and mittens	315
	22.0200 Upholstered household furniture		ll .	34.0302 Luggage	3171
	22.0300 Metal household furniture	2514	ll .	34.0304 Personal leather goods, n.e.c.	3172
	22.0400 Mattresses and bedsprings	2515	ll .	34.0305 Leather goods, n.e.c.	319
	23.0100 Wood office furniture	2021	II.	<b>4,</b>	
	23.0300 Public building and related furniture		35	Glass and glass products:	1
	23.0400 Wood partitions and fixtures	2541	II	35.0100 Glass and glass products, except containers	321, 3229, 323
	23.0500 Partitions and fixtures, except wood	2542		35.0200 Glass containers	3221
	23.0600 Drapery hardware and window blinds and shades	2591	36	Stone and clay producte:	1
	23.0700 Furniture and fixtures, n.e.c.		30	Stone and clay products: 36.0100 Cement, hydraulic	324
	· ·		ll .	36.0200 Brick and structural clay tile	3251
	Paper and allied products, except containers:		li	36.0300 Ceramic wall and floor tile	3253
	24.0100 Pulp mills	261		36 0400 Clay refractories	L 3255
	24.0400 Envelopes	2677		36.0500 Structural clay products, n.e.c.	I 3259
	24.0500 Sanitary paper products	2676	11	36.0600 Vitreous china plumbino fixtures	I 3261
	24.0701 Paper coating and glazing24.0702 Bags, except textile	20/1-2		36.0701 Vitreous china table and kitchenware	3262
	24.0703 Die-cut paper and paperboard and cardboard	2075-4		36.0702 Fine earthenware table and kitchenware	3263
	24.0705 Stationery, tablets, and related products			36.0800 Porcelain electrical supplies	3264
	24.0706 Converted paper products, n.e.c.	2679	ll .	36.0900 Pottery products, n.e.c	3269
	24.0800 Paper and paperboard mills	262-3		36.1000 Concrete block and brick	3272
			H	36.1200 Ready-mixed concrete	3273
	Paperboard containers and boxes:			36.1300 Lime	3274
	25.0000 Paperboard containers and boxes	265		36.1400 Gypsum products	3275
				36.1500 Cut stone and stone products	I 328
	Newspapers and periodicals:		11	36.1600 Abrasive products	3291
	26.0100 Newspapers	271	1	36.1700 Aspestos products	1 3292
	26.0200 Periodicals	272		36.1900 Minerals, ground or treated	3295
	Other printing and publishing:			36.2000 Mineral wool	
	Other printing and publishing: 26.0301 Book publishing	2731		36.2100 Nonclay refractories	
	26.0302 Book printing	2732		36.2200 Nonmetallic mineral products, n.e.c	3299
	26.0400 Miscellaneous publishing	1 274	37	Primary iron and steel manufacturing:	
	26.0501 Commercial printing	275	11	37.0101 Blast furnaces and steel mills	3312
	26.0601 Manifold business forms	276		37.0102 Electrometallurgical products, except steel	3313
	26.0602 Blankbooks, looseleaf binders and devices	2782	II	37.0103 Steel wiredrawing and steel nails and spikes	3315
	26.0700 Greeting cards	277	1	37.0104 Cold-rolled steel sheet, strip, and bars	3316
	26.0802 Bookbinding and related work	2701	11	37.0104 Cold-rolled steel sheet, strip, and bars	3317
	26.0803 Typesetting		11	37.0200 Iron and steel foundries	332
	EU.UUUU FIAIGIIIAKIIIY AIIU IGIAIGU SGIVIUUS	2190	11	37.0300 Iron and steel forgings	
	Industrial and other chemicals:	1	1	37.0401 Metal heat treating	
	27.0100 Industrial inorganic and organic chemicals	281 (excl. *2819).	11	37.0402 Primary metal products, n.e.c	3333
		I 2865, 2869	38	Primary nonferrous metals manufacturing:	Ī
	27.0401 Gum and wood chemicals		1	38.0100 Primary smelting and refining of copper	3331
	27.0402 Adhesives and sealants	2891	1	38.0400 Primary aluminum	3334, *2819
	27.0403 Explosives		II	38.0501 Primary nonferrous metals, n.e.c	3339
	27.0404 Printing ink			38.0600 Secondary nonferrous metals	334
	27.0405 Carbon black	2895	II.	38.0700 Rolling, drawing, and extruding of copper	3351
	27.0406 Chemicals and chemical preparations, n.e.c	2899	1	38.0800 Aluminum rolling and drawing	3353-5
	Agricultural fertilizers and chemicals:	1	[	38.0900 Nonferrous rolling and drawing, n.e.c	3356
	27.0201 Nitrogenous and phosphatic fertilizers	2873-4		38.1000 Nonferrous wiredrawing and insulating	
	27.0202 Fertilizers, mixing only	2875	II	38.1100 Aluminum castings	3366
	27.0300 Pesticides and agricultural chemicals, n.e.c.	2879	ll .	38.1300 Nonferrous castings, n.e.c.	
		1		38.1400 Nonferrous forgings	
	Plastics and synthetic materials:		I		1
	28.0100 Plastics materials and resins		39	Metal containers:	
	28.0200 Synthetic rubber			39.0100 Metal cans	
	28.0300 Cellulosic manmade fibers		II	39.0200 Metal shipping barrels, drums, kegs, and pails	
	28.0400 Manmade organic fibers, except cellulosic	2824			
	Dmigo		40	Heating, plumbing, and fabricated structural metal products:	10404
	Drugs:	1000	II.	40.0100 Enameled iron and metal sanitary ware	
	29.0100 Drugs	283	1	40.0200 Plumbing fixture fittings and trim	3432
	Cleaning and toilet preparations:		1	40.0300 Heating equipment, except electric and warm air furnaces.	3433
	29.0201 Soap and other detergents	2841	11	40.0400 Fabricated structural metal	3441
	EUROLUI COMP MIN VIIIGI MOLOIMO III.		1	40.0500 Metal doors, sash, frames, molding, and trim	
	29 0202 Polishes and sanitation goods	1 2842		TOURS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS	74444/
	29.0202 Polishes and sanitation goods		11	40 0600 Fabricated plate work /hoiler shops	3443
	29.0202 Polishes and sanitation goods	2843		40.0600 Fabricated plate work (boiler shops)	3443
	29.0202 Polishes and sanitation goods	2843		40.0600 Fabricated plate work (boiler shops) 40.0700 Sheet metal work 40.0800 Architectural and ornamental metal work	3443 3444

	I-O industry number and title	Related 1987 SIC codes		I-O industry number and title	Related 1987 codes
	Screw machine products and stampings: 41.0100 Screw machine products, bolts, etc.			54.0400 Electric housewares and fans	3634 3635
	41.0201 Automotive stampings	3465 3466	11	54.0700 Household appliances, n.e.c	3639
	41.0203 Metal stampings, n.e.c.	3469	55	Electric lighting and wiring equipment:	1
	• •		11	55.0100 Electric lamp bulbs and tubes	3641 3645-8
	Other fabricated metal products: 42.0100 Cutlery	3421	ļļ	55.0200 Lighting fixtures and equipment	3643-4
	42.0201 Hand and edge tools, except machine tools and	3423		·	
	handsaws.	3425	56	Audio, video, and communication equipment: 56.0100 Household audio and video equipment	3651
	42.0202 Saw blades and handsaws			56.0200 Prerecorded records and tapes	3652
	42.0401 Plating and polishing	3471	ļļ .	56.0300 Telephone and telegraph apparatus	3661
	42.0402 Coating, engraving, and allied services, n.e.c		H	56.0500 Communication equipment	3663, 3669
	42.0500 Miscellaneous fabricated wire products	3495-6 3493	57	Electronic components and accessories:	
	42.0800 Pipe, valves, and pipe fittings	3491-2, 3494, 3498		57.0100 Electron tubes	3671 3674
	42.1000 Metal foil and leaf		11	57.0200 Semiconductors and related devices	3672, 3675-9
	42.1100 Fabricated metal products, n.e.c	3499		•	
	Engines and turbines:		58	Miscellaneous electrical machinery and supplies: 58.0100 Storage batteries	3691
	43.0100 Turbines and turbine generator sets	3511		58.0200 Primary batteries, dry and wet	3692
	43.0200 Internal combustion engines, n.e.c	3519	[]	58.0400 Electrical equipment for internal combustion engines	3694
,	Farm, construction, and mining machinery:			58.0600 Magnetic and optical recording media	3695 3699
	44.0001 Farm machinery and equipment	3523 3524			0000
	45.0100 Construction machinery and equipment		59A	Motor vehicles (passenger cars and trucks):	0711
	45.0200 Mining machinery, except oil field	3532	l	59.0301 Motor vehicles and passenger car bodies	3711
	45.0300 Oil and gas field machinery and equipment	3533	59B	Truck and bus bodies, trailers, and motor vehicles parts:	2712
	Materials handling machinery and equipment:		ll .	59.0100 Truck and bus bodies	3713 3715
	46.0100 Elevators and moving stairways	3534		59.0302 Motor vehicle parts and accessories	
	46.0200 Conveyors and conveying equipment	3535 3536	60	Aircraft and parts:	
	46.0400 Industrial trucks and tractors	3537	••	60.0100 Aircraft	3721
				60.0200 Aircraft and missile engines and engine parts	3724, 3764
	Metalworking machinery and equipment: 47.0100 Machine tools, metal cutting types	3541		60.0400 Aircraft and missile equipment, n.e.c	3728, 3769
	47.0200 Machine tools, metal forming types	3542	61	Other transportation equipment:	1
	47.0300 Special dies and tools and machine tool accessories	3544-5		61.0100 Ship building and repairing	3731
	47.0401 Power-driven handtools			61.0200 Boat building and repairing	
	47.0404 Electric and gas welding and soldering equipment		ii .	61.0500 Motorcycles, bicycles, and parts	375
	47.0405 Industrial patterns	3543	li	61.0601 Travel trailers and campers	3792
	47.0500 Metalworking machinery, n.e.c	3549		61.0603 Motor homes	3716 3799
	Special industry machinery and equipment:			, ,, ,	0,00
	48.0100 Food products machinery	3556	62	Scientific and controlling instruments:	381
	48.0200 Textile machinery	3552		62.0101 Search and navigation equipment	3821
	48.0400 Paper industries machinery	3554	H	62.0200 Mechanical measuring devices	3623-4, 3629
	48.0500 Printing trades machinery and equipment	3555	l)	62.0300 Environmental controls	3822
	48.0600 Special industry machinery, n.e.c.	3559		62.0400 Surgical and medical instruments and apparatus	3841 3842
	General industrial machinery and equipment:			62.0600 Dental equipment and supplies	3843
	49.0100 Pumps and compressors			62.0700 Watches, clocks, watchcases, and parts	387
	49.0200 Ball and roller bearings	3562 3564		62.0800 X-ray apparatus and tubes	3844 3845
	49.0500 Mechanical power transmission equipment	3566, 3568		62.1000 Laboratory and optical instruments	3826-7
	49.0600 Industrial process furnaces and ovens	3567		62.1100 Instruments to measure electricity	3825
	49.0700 General industrial machinery and equipment, n.e.c	3569 3565	63	Ophthalmic and photographic equipment:	
	49.0800 Packaging machinery	3303	''	63.0200 Ophthalmic goods	385
	Miscellaneous machinery, except electrical:	0500		63.0300 Photographic equipment and supplies	386
	50.0100 Carburetors, pistons, rings, and valves	3592 3593-4	64	Miscellaneous manufacturing:	
	50.0300 Scales and balances, except laboratory	3596	l	64.0101 Jewelry, precious metal	3911
	50.0400 Industrial and commercial machinery and equipment,	3599	I	64.0102 Jewelers' materials and lapidary work	3915 3914
	n.e.c.		I	64.0105 Costume jeweiry	3961
	Computer and office equipment:		I	64.0200 Musical instruments	393
	51.0102 Calculating and accounting machines	3578	ŀ	64.0301 Games, toys, and children's vehicles	3944 3942
	51.0103 Electronic computers	3571 3572, 3575, 3577		64.0302 Dolls and stuffed toys	
	51.0400 Office machines, n.e.c.	3579	ll .	64.0501 Pens, mechanical pencils, and parts	3951
				64.0502 Lead pencils and art goods	3952
	Service industry machinery: 52.0100 Automatic vending machines	3581		64.0503 Marking devices	3953 3955
	52.0200 Commercial laundry equipment	3582	il	64.0700 Fasteners, buttons, needles, and pins	3965
	52.0300 Refrigeration and heating equipment	3585	il	64.0800 Brooms and brushes	3991
	52.0400 Measuring and dispensing pumps	3586 3589	ll .	64.0900 Hard surface floor coverings, n.e.c	3996 3995
	52.0500 Service industry machinery, n.e.c	0003		64.1000 Burial caskets	3993
	Electrical industrial equipment and apparatus:	0040		64.1200 Manufacturing industries, n.e.c.	*3999
	53.0200 Power, distribution, and specialty transformers	3612	ll .	•	1
	53.0300 Switchgear and switchboard apparatus	3613 3621		TRANSPORTATION, COMMUNICATIONS, AND UTILITIES	
	53.0500 Relays and industrial controls	3625	65A	Railroads and related services; passenger ground	
	53.0700 Carbon and graphite products	3624		transportation:	
	53.0800 Electrical industrial apparatus, n.e.c	3629		65.0100 Railroads and related services	40, 474, *4789
	Household appliances:		1	65.0200 Local and suburban transit and interurban highway passenger transportation.	41
	54.0100 Household cooking equipment	3631 3632	65B	• •	
	54.0200 Household refrigerators and freezers			Motor freight transportation and warehousing:	

	I-O industry number and title	Related 1987 SIC codes		I-O industry number and title	Related 1987 SIC codes
65C	Water transportation: 65,0400 Water transportation	44	75	Automotive repair and services: 75,0001 Automotive rental and leasing, without drivers	751
65D	Air transportation: 65.0500 Air transportation	45		75.0002 Automotive repair shops and services	753, 7549 752, 7542
65E	Pipelines, freight forwarders, and related services:	45	76	Amusements: 76.0101 Motion picture services and theaters	781-3
	65.0600 Pipelines, except natural gas	473, 4783, 4785,		76.0102 Video tape rental	784 792
	65.0702 Arrangement of passenger transportation	*4789 472		orchestras and entertainers. 76.0202 Bowling centers	793 7941
66	Communications, except radio and TV: 66.0000 Communications, except radio and TV	481-2, 484, 489		76.0204 Racing, including track operation	7948 7948 7991, 7997
67	Radio and TV broadcasting: 67.0000 Radio and TV broadcasting	483		recreation clubs. 76.0206 Other amusement and recreation services	791, 7992-3, 7996, 7999
68A	Electric services (utilities): 68.0100 Electric services (utilities)	491, *493	77A	Health services:	
68B	Gas production and distribution (utilities): 68.0200 Gas production and distribution (utilities)	492, *493		77.0100 Doctors and dentists	801-3, 8041   806   805
68C	Water and sanitary services: 68.0301 Water supply and sewerage systems	494, 4952		77.0302 Other medical and health services, including veterinarians.	074, 8043, 8049, 807-9
	68.0302 Sanitary services, steam supply, and irrigation systems	4953, 4959, 496-7, *493	77B	Educational and social services, and membership organizations:	
	WHOLESALE AND RETAIL TRADE			77.0401 Elementary and secondary schools	821 822
69A	Wholesale trade:	50.54		77.0403 Private libraries, vocational schools, and educational services, n.e.c. 77.0501 Business associations and professional membership	823-4, 829 861-2
69B	69.0100 Wholesale trade	50, 51		organizations. 77.0502 Labor organizations, civic, social, and fraternal	863-4
	69.0200 Retail trade, except eating and drinking	52-7 (excl. *546), 59, *7389, 8042		associations. 77.0503 Religious organizations	866 84, 865, 869, 8733
	FINANCE, INSURANCE, AND REAL ESTATE			77.0600 Job training and related services	6732
70A	Finance: 70.0100 Banking			77.0700 Child day čare services	835 836
	70.0200 Credit agencies other than banks			77.0900 Social services, n.e.c	832, 839
70B	Insurance: 70.0400 Insurance carriers	63	78	Federal Government enterprises:	
71A	70.0500 Insurance agents, brokers, and services  Owner-occupied dwellings:	64		78.0100 U.S. Postal Service	(¹)
/ IA	71.0100 Owner-occupied dwellings		79	State and local government enterprises:	
71B	Real estate and royalties: 71.0201 Real estate agents, managers, operators, and lessors 71.0202 Royalties		İ	79.0100 State and local government passenger transit	I (1)
	SERVICES			SPECIAL INDUSTRIES	` '
72A	Hotels and lodging places: 72.0100 Hotels and lodging places	70	80	Noncomparable imports: 80.0000 Noncomparable imports	(2)
72B	Personal and repair services (except auto): 72.0201 Laundry, cleaning, garment services, and shoe repair	721, 725	81	Scrap, used and secondhand goods:	(3)
	72.0202 Funeral service and crematories	726 722, 729		81.0001 Scrap	(3) (3)
	personal services. 72.0204 Electrical repair shops	762	82	General government industry: 82.0000 General government industry	(4)
	72.0205 Watch, clock, jewelry, and furniture repair		83	Rest of the world adjustment to final uses: 83.0001 Rest of the world adjustment to final uses	(5)
73A	Computer and data processing services: 73.0104 Computer and data processing services	737	84	Household Industry: 84.0000 Household industry	(6)
73B	Legal, engineering, accounting, and related services: 73.0301 Legal services		85	Inventory valuation adjustment: 85.0000 Inventory valuation adjustment	
	73.0302 Engineering, architectural, and surveying services	871 872, 89		VALUE ADDED	
73C	miscellaneous services, n.e.c.  Other business and professional services, except medical:			88.0000 Compensation of employees	(8)
	73.0101 Miscellaneous repair shops	734		89.0000 Indirect business tax and nontax liability	( <sup>8</sup> )
	73.0103 Personnel supply services	736 874, 8731-2, 8734		FINAL USES	
	73.0106 Detective and protective services	7381-2 735		91.0000 Personal consumption expenditures	(9)
	73.0108 Photofinishing labs and commercial photography	7384, 7335-6 732, 7383, *7389,		93.0000 Change in business inventories	(2)
70-		7331, 7334, 7338		95.0000 Imports of goods and services	(9)
73D	Advertising: 73.0200 Advertising	731		97.0000 Federal Government purchases, nondefense	(%)
74	Eating and drinking places: 74.000 Eating and drinking places	]		secondary public school systems.  98.0002 State and local government purchases, public educational facilities beyond high school.	(9)

I-O industry number and title	Related 1987 SIC codes			I-O industry number and title	Related 1987 SIC codes
98.0003 State and local government purchases, other education	(9)		1.0204	Garages and service stations	
and libraries.			1.0205	Stores and restaurants	
99.1001 State and local government purchases, hospitals and	(9)		1.0206	Religious buildings	
categorical health programs.	40)		1.0207	Educational buildings	
99.1002 State and local government purchases, public welfare	(9)		1.0231	Hospitals	
institutions and activities.	, m		1.0232	Residential institutions and other health-related facilities	
99.1003 State and local government purchases, public sewerage	(9)		1.0241	Amusement and recreation buildings	***************************************
systems, capital account only.	/01		1.0250	Other nonfarm buildings	***************************************
99.1004 State and local government purchases, sanitation	(°) (°) (°)		1.0301	Telephone and telegraph facilities	
	I 💭		1.0302	Railroads	***************************************
99.2002 State and local government purchases, fire fighting	[ ()		1.0303	Electric utility facilities	***************************************
organizations and auxiliary services.  99.2003 State and local government purchases, correctional	/9\		1.0304	Gas utility facilities	
institutions.	(9)		1.0305	Petroleum pipelines	***************************************
99.3001 State and local government purchases, public highways	(9)		1.0306	Water supply facilities	***************************************
(excluding non-capital expenditures of toll roads).	(1)		1.0307	Sewer system facilities	
99.3002 State and local government purchases, waterports and	(%)		1.0308	Local transit facilities	
airports, capital account only.	1 (1)		1.0400	Highways and streets	
99.3003 State and local government purchases, government-	(9)		1.0501	Farm housing units and additions and alterations	
operated transit systems, capital account only.	()		1.0502	Farm service facilities	***************************************
99.3004 State and local government purchases, other commerce	( <sup>9</sup> )		1.0601	Petroleum and natural gas well drilling	***************************************
activities n.e.c. capital account only	()		1.0602	Petroleum, natural gas, and solid mineral exploration	
activities n.e.c., capital account only.  99.3005 State and local government purchases, gas and electric	(9)		1.0603	Access structures for solid mineral development	***************************************
utilities, capital account only.	C)		1.0701	Military facilities	
99.3006 State and local government purchases, government-	(9)		1.0702	Dams and reservoirs	***************************************
operated water supply facilities, capital account only	()		1.0703	Other conservation and development facilities	
operated water supply făcilities, capital account only. 99.3007 State and local government purchases, redevelopment	(9)	11	1.0704	Other nonbuilding facilities	
projects, capital account only.	()	12 M		nce and repair construction:	
99.3008 State and local government purchases, natural and	( <sup>9</sup> )				
agricultural resources and recreation facilities.	()		2.0201	Other nonfarm buildings	
99.3009 State and local government purchases, other general	(9)		2.0201	Farm residential buildings	
government activities, n.e.c.	``		2.0202	Farm service facilities	••••••
,			2.0204	Telephone and telegraph facilities	
ADDENDUM: Special commodity groupings			2.0204	Railroads	
			2.0206	Electric utility facilities	
New construction:			2.0207	Gas utility facilities	
11.0101 Residential 1-unit structures, nonfarm			2.0207	Petroleum pipelines	
11.0102 Residential 2-4 unit structures, nonfarm	***************************************		2.0209	Water supply facilities	***************************************
11.0103 Residential garden apartments			2.0209	Sewer facilities	
11.0104 Residential high-rise apartments	***************************************		2.0210	Local transit facilities	***************************************
11.0105 Residential additions and alterations, nonfarm			2.0212	Military facilities	
11.0106 Hotels and motels			2.0213	Conservation and development facilities	
11.0107 Dormitories and other group housing			2.0213	Highways and streets	***************************************
11.0201 Industrial buildings			2.0215	Petroleum and natural gas wells	***************************************
11.0202 Office buildings			2.0216	Other nonbuilding facilities	
11.0203 Warehouses	***************************************	'4	2.0210	Outer nonbullioning lacilities	***************************************
		L			

<sup>1.</sup> Although the SIC assigns the same codes to activities of both private firms and government agencies, SIC codes in the I-O accounts are used only for classifying private activities.
2. Noncomparable imports include imported goods and services that are not commercially produced in the United States, and goods and services that are produced abroad and used abroad by U.S. residents—for example, defense spending abroad.
3. Industry output is zero because there is no primary producing industry. Scrap is a secondary product of many industries, and used goods are sales and purchases typically between final uses. The sales are shown as negative values in the use table.
4. Industry output is defined as the compensation of general government employees except for those engaged

in construction work; their compensation is included in the construction industry. It also excludes the compensation of employees of government enterprises.

5. The commodity entries include adjustments to personal consumption expenditures and government purchases that eliminate items that are actually exports.

6. Industry output is defined as the compensation of domestic household workers.

7. The inventory valuation adjustment converts the inventory changes based on withdrawals valued primarily at historical cost as reported by most businesses to replacement cost, the valuation used in the I-O accounts.

8. There are no related SIC codes since these categories are not industries, but are categories of final uses.

## Table 1.—The Make of Commodities [Millions of dollars

	For the distribution of industries producing a commodity, read the column for that commodity  For the distribution of commodities produced by an industry, read the row for that industry	Livestock and livestock products	Other agri- cultural products	Forestry and fishery products	Agri- cultural, forestry, and fishery services	Metallic ores mining	Coal mining	Crude petroleum and natural gas	Non- metallic minerals mining	New con- struction	Maintenan and repa construction
	Commodity number	1	2	3	4	5+6	7	8	9+10	11	12
	ivestock and livestock products	83,609		243	494						***************************************
	hther agricultural productsorestry and fishery products		82,183	1,788 7,456	974		***************************************				***************************************
ΙA	gricultural, forestry, and fishery services	***************************************			22,201						
١٨	Metallic ores mining					6,800	25,447		6		
10	rude petroleum and natural gas							67,947	1		
	Ionmetallic minerals mining					3	4		11,321	445,347	173,46
10	ordnance and accessories						***************************************			***************************************	173,4
	ood and kindred products										
	obacco products										
I۸	fiscellaneous textile goods and floor coverings										
ľ	pparel					***************************************					
١L	umber and wood products	***************************************	***************************************					***************************************			
) F	urniture and fixtures	***************************************		***************************************		***************************************					
	aper and allied products, except containers									***************************************	
١	lewspapers and periodicals							[			
1	hther printing and publishing								8		
A	gricultural fertilizers and chemicals						***************************************		ļ ĭ		
	Yastics and synthetic materials										
10	Cleaning and toilet preparations	***************************************								***************************************	
<u>F</u>	Paints and allied products							l			
1;	Petroleum refining and related products							1	140		
F	ootwear, leather, and leather products										
	Glass and glass products								402		
۱ř	Primary iron and steel manufacturing	***************************************		***************************************					1		************
١.	rimary iron and steel manufacturing rimary nonferrous metals manufacturing										
1 1	Metal containers										
18	Screw machine products and stampings		***************************************								
1	Other fabricated metal products		***************************************					***************************************			
l F	arm, construction, and mining machinery										
11	Materials handling machinery and equipment										
13	Metalworking mačhinery and equipment				,						[
10	Seneral industrial machinery and equipment										
ľ	Miscellaneous machinery, except electrical								***************************************		
13	Service industry machinery										
H	Electrical industrial equipment and apparatus										
П	Electric lighting and wiring equipment								***************************************		
1:	Audio, video, and communication equipment		•••••								
li	Miscellaneous electrical machinery and supplies										
н	Motor vehicles (passenger cars and trucks)										
	Truck and bus bodies, trailers, and motor vehicles parts										
Т	Other transportation equipment										
	Scientific and controlling instruments										
Ð	Miscellaneous manufacturing	***************************************	***************************************								
ш	Railroads and related services; passenger ground transportation										
	Motor freight transportation and warehousing							***************************************			
L	Air transportation							<b></b>			
ľ	Pipelines, freight forwarders, and related services										
	Radio and TV broadcasting							]			
	Electric services (utilities)  Gas production and distribution (utilities)										
1	Water and sanitary services										
	Wholesale trade										
	Retail trade										
ı	Insurance										
	Owner-occupied dwellings										
ш	Hotels and lodging places										
Н	Personal and repair services (except auto)			***************************************							
ш	Legal, engineering, accounting, and related services										
1	Other business and professional services, except medical										
	Advertising										***************************************
5	Automotive repair and services		***************************************	***************************************							
	Amusements								·····	<b> </b>	
	Educational and social services, and membership organizations	***************************************			***************************************						
3 ]	Federal Government enterprises							.			
9	State and local government enterprises										····
2	Household industry										
	Inventory valuation adjustment										

\*Less than \$500,000.

# by Industries, 1987 Benchmark at producers' prices]

Ordnance and accessories	Food and kindred products	Tobacco products	Broad and narrow fabrics, yarn and thread mills	Miscel- laneous textile goods and floor coverings	Apparel	Miscel- laneous fabricated textile products	Lumber and wood products	Furniture and fixtures	Paper and allied products, except containers	Paperboard containers and boxes	Newspapers and periodicals	Other printing and publishing	Industrial and other chemicals	Agricultural fertilizers and chemicals	
13	14	15	16	17	18	19	20+21	22+23	24	25	26A	26B	27A	27B	
	3,075 771	•••••					131								
		***************************************						***************************************			***************************************				l
	***************************************	***************************************		***************************************	***************************************	***************************************	***************************************			***************************************	***************************************		(*)		1
		***************************************		***************************************		***************************************						***************************************	143		١,
		***************************************					(*)						1,259		333
26,047	325,129	***************************************					2		15	5	***************************************		497	11	1
		26,361	34,225 317	298 15,177	183	1,838		1	15 18 2 53			1	2		l
		***************************************	140	15,177	63,762	1,838 75 183 16,647	1 1	1		1		2	17	1	ĺ
1	1		68	3 35 2 2	63,762 55 (*)	16,647 8	10 72.281	20 160 36,040	13 14	2		7 1	1 2	1	2
2	5	20	1 19	2 175	3	8 35 32	72,281 136 49	36,040 16	10 79,160	1 86	***************************************	2 232	181		2
	š					1	4		87	24,848	14,993	232 25 1,781			l
		***************************************		43	1	17	3	3	587	38	677	64,778	28		l
24	119 13			1		1	4		42		***************************************		75,354 1,132	843 11,877	
	7 250	***************************************		343				***************************************	1		***************************************	3	3,170 210	177 59	ĺ
	107 1		,	3 4	3	27		1	2			28	1,294 62	342	l
4		***************************************	24	80	18 43	25 18	71	40	2 407	153		22	5,357 185	23 2	l
5	26		2	2	43	18 3	1	4 4	1	34		9			3
3	(*)		4	33		ī	71	(*)	100 1	1		1	71 31	15 10	
	124	***************************************					1	4		42	***************************************		125		l
2		***************************************		1		1	75	59 10			***************************************	2 3	18	2	
10		***************************************	15 3	15		4	6 30	89	162	56	2	81	47		
13						***************************************	1	1		***************************************			7		4
1 5	3	***************************************		1			2	18			***************************************	(*)	56		
4			1	3		1	2	4 4	18 7	2	***************************************	8	7 12		
8		***************************************				5		1 2	4			7	10		
	2	***************************************				3	3	2 48 4	3		***************************************		1	3	ĺ
1		***************************************	2			1	5	15					4		ĺ
	***************************************	***************************************	***************************************		14	4		14		***************************************					
3							2						18		
38 318		***************************************				10		12	6				7		
656 16		***************************************	1		2	3 8	1	3 10		1	***************************************		13		İ
1,002	1		6	43	132	9	4	58 2	112 100		***************************************	13 26	20 223		
2		••••••	5	2	39	41	29	48	20	10	***************************************	92	58	1	
															ĺ
		***************************************				***************************************			••••••		***************************************				
							***************************************								
	***************************************	***************************************		***************************************		***************************************	***************************************		***************************************						l
													222		
													***************************************		
		***************************************						***************************************							1
		***************************************													
		***************************************			***************************************						***************************************		***************************************		
												***************************************			1
28,177	329,636	26,381	34,832	16,266	64,259	19,006	72,936	36,700	80,961	25,288	15,674	67,126	89,852	13,365	1

### Table 1.—The Make of Commodities [Millions of dollars

	For the distribution of industries producing a commodity, read the column for that commodity  For the distribution of commodities produced by an industry, read the row for that industry	Plastics and synthetic materials	Drugs	Cleaning and toilet preparations	Paints and allied products	Petroleum refining and related products	Rubber and miscel- laneous plastics products	Footwear, leather, and leather products	Glass and glass products	Stone and clay products	Primar iron an steel ma facturin
$\perp$	Commodity number	28	29A	298	30	31	32	33+34	35	36	37
l	Livestock and livestock products										
ı	Other agricultural products										
L	Agricultural, forestry, and fishery services		***************************************				***************************************				
l	Metallic ores mining									1	
П	Coal mining					4,162					
U	Nonmetallic minerals mining			***************************************		72		<b> </b>		299	l
	Construction										**********
Ш	Food and kindred products		136	39	2	4	37	84			
U	Tobacco products	1.663									
l	Miscellaneous textile goods and floor coverings			***************************************	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		132	(*)		ĭ	
L	Apparel			1			17	42			
	Miscellaneous fabricated textile products			2			17 76	10	(°) 43	1 29	
I	Furniture and fixtures		***************************************	***************************************			76	l å	87	23	l
п	Paper and allied products, except containers	4		123	9		850	1		5	
Ľ	Paperboard containers and boxes		***************************************			] 1	275				
Ľ	Other printing and publishing			1		,	3i	24	1	4	
U	Other printing and publishing	4,851	489	769	143	922	297		11	135	Ì
ľ	Agricultural fertilizers and chemicals	213 36,104	181 71	80 72		3	686				
1	Drugs	16	34,447	719			21 60			l i	
Ľ	Cleaning and toilet preparations	39 115	286	30,826		44	60,	6		10 12	
l	Paints and allied products	1 1	***************************************	21	1 4	132,214	Ιí		1	100	
П	Rubber and miscellaneous plastics products	232	7	11	21	1	82,604	23	39	43	1
l	Footwear, leather, and leather products			1			8 18	8,563	15,893	38	**********
1	Stone and clay products	4	11	50	2	115	99		15,093	42,323	
1	Primary iron and steel manufacturing				1	1	7		1 1	15	65
Ĺ	Primary nonferrous metals manufacturing			***************************************	1 1	1	48 45		65	38	ĺ
Ш	Heating, plumbing, and fabricated structural metal products	7					229		18	37	
ŀ	Screw machine products and stampings			ļ <u>.</u>	1 1		97	3	18	2	l .
	Other fabricated metal products	] 3	1	3	1 1	2	237	12	l . ′	42	ŀ
П	Farm, construction, and mining machinery		,			1	11		1	4	
ļ	Materials handling machinery and equipment						4			1 42	i
ĺ	Special industry machinery and equipment	¦		1 3	2		34		1	46	
П	General industrial machinery and equipment	l	1	i	3	1	56			12	i
1	Miscellaneous machinery, except electrical  Computer and office equipment					1	33			1 4	į.
1	Service industry machinery			13			68		1	4	l
1	Electrical industrial equipment and apparatus	9				8	14			19	
1	Household appliances	6			27	3	72		25	8	
П	Audio, video, and communication equipment						4			9	
ļ	Electronic components and accessories	21		3			66		l '	1	i
П	Motor vehicles (passenger cars and trucks)							1			
	Truck and bus bodies, trailers, and motor vehicles parts	1 1		***************************************	6	13	90 15		1	11	1
l	Aircraft and parts	4				\	3			İ'	Ì
ш	Scientific and controlling instruments	3	204	84			132	2	41	13	1
l	Ophthalmic and photographic equipment		28	31	59		78 111	14	1 29	22	
u	Hailroads and related services; passenger ground transportation			31	Í	<b></b>	]	<b></b>	23		l
П	Motor freight transportation and warehousing										
	Water transportation										
П	Pipelines, freight forwarders, and related services										
1	Communications, except radio and TV										
	Electric services (utilities)										
П	Gas production and distribution (utilities)					20					
	Water and sanitary services		***************************************							,	
	Retail trade										
	Finance										
	Insurance									İ	**********
١	Real estate and royalties										
	Hotels and lodging places										
	Personal and repair services (except auto)									l	
Н	Legal, engineering, accounting, and related services									,	
1	Other business and professional services, except medical										
1	Advertising										
1	Automotive repair and services										
1	Amusements							***************************************			
3	Health services	1						\			
3	Federal Government enterprises										
2	State and local government enterprises				· · · · · · · · · · · · · · · · · · ·					33	
1	Household industry										
šΙ	Inventory valuation adjustment Total commodity output										
		43,407	35,862	32,872	12,183	137,599	86,851	8,787	16,335	43,340	. 6

\*Less than \$500,000.

# **by Industries, 1987 Benchmark—**Continued at producers' prices]

Primary nonferrous metals manufacturing	Metal containers	Heating, plumbing, and fabri- cated struc- tural metal products	Screw machine products and stampings	Other fabricated metal products	Engines and turbines	Farm, con- struction, and mining machinery	Materials handling machinery and equipment	Metalworking machinery and equipment	Special industry machinery and equipment	General industrial machinery and equipment	Miscellaneous machinery, except electrical	Computer and office equipment	Service industry machinery	Industry number
38	39	40	41	42	43	44+45	46	47	48	49	50	51	52	Indus
														1 2
						***************************************		***************************************						3 4 5+6
7	***************************************		***************************************			***************************************		***************************************	***************************************		(*)			7 8
4														9+10 11+12
10 3	3	12	6	8	4	10	2	7	7	18			2 2	13 14 15
				3 12		1			1					16 17
(*)	1 (*)	5 74	1	2 24 23	***************************************	(*)	1	13		7	***************************************	1	1	18 19 20-21
1	6	71	5	71 173		4	11	2	2 9	3	2	3 18	14 2	22+23 24
	39		1	3				1	2	2				25 26A
78		29	6 12	91	1	1		10	24	13	1	47	3	27A 27B
				3 1		***************************************				1			1	28 29A
	•••••••••		***************************************	2				2		1			9	29B 30
62	14	108	83	164 2		17	1	329 1	23 1	26	9	6	33	9+10 11+12 11 11+12 11+1
(*)		53 42 81 76	10 26	14	***************************************	11 30	1	1 62 176	4	7	1	5 37	5	35 36
(*) 384 54,561	11,544	76 5	26 55 9	1,818   173   2		30		180	4	51 10	2		13	38 39
19 11	15 30	42,018 111	169 30,298 159	410 162	4	68 7	35 2	68 616	32 23 33	101 41	46 36	3	76 4	40 41
94 31	2	229 3 62	159 1 71	41,845 3 80	12,864 202	62 31 25,219	18	147 42 108	1 5	164 35 106	36 159 64 93 20 144	10	36 1 33	42 43 44+45
1 21	1	40 19	4	80 23 131 90 152	1	35 118 33	136 6,839 23 64 54	19 19,849	30 57 171	55 138 188	20 144	2 8	33 13 7	46 47
4 17		229 3 62 40 19 44 126 47	78 5 28 29	90 152 399	106 106	33 147 16	64 54 21	112 55	15,331 208 29 47 33 24	21,625	51 182	7 2	110 127	48 49
11	2	1 164	29 1 60	24 58		6	16	106 13 5	47 33	68 30 138	182 18,546 29 21	51,717 6	12 2 20,906	50 51 52
2 5	7	8 28 10	23 36	35 15	40	3	7	8	[ 14	94 18	13	30	15 222	53 54
21 15 54		5	3 3 22	109 12 95		4	3 6	1 1 11	8 1 94	3	68 3 6	19 127 1,711	2	55 56 57
253		4 8	8 438	10	9	1 12	_1	5 29 19	4	6	15	81	3	58 59A
44		54 51 52 27 2	60 23 36 20 3 22 8 438 105 17 2 12 12	371 110	609 440 70	12 79 2 77	57 47 3	19 19 3	60 2	152 16	234 45	11	62 1 7	59B 60
9		27 2	12 2	180	35	3	26	14 2	70 41	84 8	14 32 1	260 303	14 3	62 63
5	1	14	18	104		1		6	5	7	4	1	2	65A
			***************************************			***************************************	***************************************			***************************************				65C 65D
														65E 66
		***************************************	***************************************		***************************************	***************************************		***************************************				***************************************		68A 68B
						***************************************	***************************************	***************************************						68C 69A
					***************************************									65B 65C 65D 65E 66 67 68A 68B 68C 69A 70B
			***************************************			***************************************	***************************************					***************************************	***************************************	71A 71B
			***************************************			***************************************	***************************************							72A 72B
		***************************************				***************************************				***************************************		***************************************		73B 73C
						***************************************								71B 72A 72B 73A 73B 73C 73C 75 76 77A 77B 78 79 82 84 85
						***************************************			***************************************	***************************************				75 76 774
														77B
						***************************************	***************************************	***************************************						79 82
			***************************************			***************************************	***************************************	l		l	J		]	1 84

### Table 1.—The Make of Commodities [Millions of dollars

	dustries producing a commodity, read the column for that commodity commodities produced by an industry, read the row for that industry	Electrical industrial equipment and apparatus	Household appliances	Electric lighting and wiring equipment	Audio, video, and communi- cation equipment	Electronic components and accessories	Miscel- laneous electrical machinery and supplies	Motor vehicles (passenger cars and trucks)	Truck and bus bodies, trailers, and motor vehicles parts	Aircraft and parts	Othe transpe tation equipm
	Commodity number	53	54	55	56	57	58	59A	59B	60	61
Livestock and livestock p	oducts										<b> </b>
Forestry and fishery product	sucts										
Agricultural, forestry, and	fishery services										
Metallic ores mining											
	ıral gas										
Nonmetallic minerals min	ng pn										
Construction				1	140	9	69		16	3,802	
	Ss		1 }		140	<i></i>		*************	10	3,802	
Tobacco products	*	1				***************************************					
	, yarn and thread mills				<i></i>						
Apparel	ds and floor coverings	1		'							
Miscellaneous fabricated	textile products	(*)		(*) 5		1			1		
	ts	(*)	(°) 42	5	3 2	21	(*)		1 !	1	
Paper and allied product	, except containers	[ <u>'</u>	42			21	331		l'		l
Paperboard containers at	d boxes										
Newspapers and periodic	als										
Industrial and other chem	ingicals	1 2		1	l <sup>3</sup>	1	14			1	1
Agricultural fertilizers and	chemicals										
Plastics and synthetic ma	terials				3		1				
Cleaning and toilet proces	rations		***************************************		13				l		
Paints and allied product					13				***************************************		
Petroleum refining and re	lated products	1 1			5						
Rubber and miscellaneou	s plastics productsather products	29	50	63	2	19	16		285	1 1	l
Glass and glass product	allier products			8			2		2		********
Stone and clay products			***************************************	5	7	28	14		7	16	
Primary iron and steel m	anufacturing	3		83 36	76	42 62	18		44 14		
Metal containers	s manufacturing	ļ'		30	/6	02	16			9	
Heating, plumbing, and f	ibricated structural metal products	. 7	54	4	2	9	17	6	17	11	
Screw machine products	and stampings	4	63 8	10		8 8	2 8	(*)	13	1 .1	
Other tabricated metal pi	oducts	63		68	3	[	23		79 187	45 489	
Farm, construction, and	nining machinery	227 20 21	35	35	***************************************		1		53	4	
Materials handling machi	nery and equipment	21			2	!	(*)		15	(1)	1
Metalworking machinery	y and equipmenty	69 3 64	115	1	7 2	] 31	28	(*)	27	11	
General industrial machin	ery and equipment	64	12	6	2 2	22	) ğ	l	46	23 14	l
Miscellaneous machinery	éry and equipmentexcept electrical	141	1	] 3		7	163	1	188	39	)
Service industry machine	pmentry	43	85	36	339	1,162	188 10	1	609	12	
Electrical industrial equip	ment and apparatus		85 2	151	11	123	55		36	46	ĺ
Household appliances		1 5	14,863	10	11	1 1					
Electric lighting and wiring Audio video and commit	g equipment	185 58	273	16,384 49	60 38,346	43 433	98 122		192		
Electronic components a	nd accessories	197		129	335 223	45,340	164		***************************************	16	
Miscellaneous electrical	nachinery and supplies	62	5	159	223	397	18,539		690		
Motor venicles (passeng	er cars and trucks)	28		47	191		358	130,195 3,304		55	1
Aircraft and parts		[ 96		1 4	33	37	81		12	79,455	1
Other transportation equ	ment	124		4		1	1 1	2	55	24 342	23
Onthalmic and controlling	instrumentsphic equipment	99	12	81	1,171	393 2	514 126	(*)	2	342	
Miscellaneous manufacti	nngp	2	30				4		8		********
Railroads and related se	vices; passenger ground transportation										
	on and warehousing										
Air transportation											
Pipelines, freight forward	ers, and related servicesradio and TV										
	ng				***************************************						
Electric services (utilities	***************************************										
Gas production and distr	bution (utilities)						.,,		***************************************		
Wholesale trade	Ses	***************************************	***************************************						***************************************		
	······································								***************************************		********
Finance											
	S		***************************************				***************************************				
		***************************************									
Hotels and lodging place	\$			***************************************					***************************************		
Personal and repair sen	ices (except auto)essing services		***************************************						***************************************		
Legal, engineering, acco	unting, and related services								***************************************		
Other business and prof	essional services, except medical										
	95				l						·····
	Prices		***************************************					***************************************			
Amusements								***************************************			
	ervices, and membership organizationserprises	***************************************									
State and local government	ent enterprises		***************************************								
General government ind	istry										
Household industry	tment				***************************************						
Inventory valuation adjust											

\*Less than \$500,000.

# **by Industries, 1987 Benchmark—**Continued at producers' prices]

Scientific and controlling instruments	Ophthalmic and photo- graphic equipment	Miscel- laneous manufac- turing	Railroads and related services; passenger ground transportation	Motor freight transportation and warehousing	Water transportation	Air transportation	Pipelines, freight forwarders, and related services	Communi- cations, except radio and TV	Radio and TV broadcasting	Electric services (utilities)	Gas production and distribution (utilities)	Water and sanitary services	Wholesale trade	Poderette, estembor
62	63	64	65A	65B	65C	65D	65E	66	67	68A	68B	68C	69A	1
				807										
	***************************************													
		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						***************************************		···········				54
											11,968			l
1,254		2		***************************************	***************************************									9+ 11+ 20+ 22+ 27 27 27 27 29 29 29 29 44+ 44+ 44+ 44+ 44+ 44+ 44+ 44+ 44+ 44
		2												:
1 74		9 5		***************************************			***************************************							:
6		24		***************************************		***************************************	***************************************	***************************************		***************************************	***************************************	***************************************		
5		40 13		***************************************			***************************************							20+
55 221	71	28 103						***************************************						22+
1 .		26 6												21
1 7	21 14	146 8	***************************************				***************************************				***************************************			21
1		5												2
281 53		2 36					***************************************		***************************************					2
		10					***************************************							-
72	11	126	***************************************	***************************************	***************************************			***************************************	***************************************				***************************************	22.
9 15		6 5				***************************************		***************************************						33+
44 79	65	20 1						***************************************			26			
16		1												
93 28	3	8 13						***************************************						ł
168		42						***************************************			***************************************			
2 3 2		2		***************************************	***************************************						***************************************		***************************************	44+
45	3	10				***************************************		***************************************						1
24 57	1	6 7												
16 58	1 2	4 11												ĺ
24 152		7 2												1
45 24 57 16 58 152 12 33 1,140 343 307	1 32		***************************************											1
1,140	9	35 10 19 16									***************************************			
307		13			***************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************			***************************************	***************************************			
141 671		2					***************************************							5
3	2	13 14												1
80,003 239 96	53 18,402	23 13						***************************************						1
96	16	30,178	43,271	162	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************		***************************************						6
				113,492	24,053							2,603		6
			302	733	108	76,253 1,465	23,301	***************************************						6
							••••••	160,164			***************************************			ľ
					***************************************			***************************************	2,250	132,335		36		6
						***************************************	••••••••••				67,248	10,971		6
													423,751	6
														7
											***************************************			7
					***************************************						***************************************			7:
***************************************	***************************************	***************************************	***************************************	***************************************	***************************************	***************************************		***************************************	***************************************		***************************************		***************************************	7
				***************************************										7
						***************************************								7
					***************************************			***************************************	***************************************		***************************************			ĺ
								***************************************		***************************************	***************************************			7
***************************************			A 000		37	1 242	***************************************	***************************************		7,216	2 020	14050		<i>'</i>
			4,822		37	1,342	***************************************	***************************************		16,902	2,938	14,859		
								***************************************						6 6 6 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7
85,858	18,707	31,083	48,394	115,194	24,198	79,060	23,301	160,164	2,250	156,453	82,180	28,469	423,751	1

Table 1.—The Make of Commodities [Millions of dollars

For the distribution of industries producing a commodity, read the column for that co For the distribution of commodities produced by an industry, read the row for that in		trade	Finance	Insurance	Owner- occupied dwellings	Real estate and royalties	Hotels and lodging places	Personal and repair services (except auto)	Computer and data processing services	Legal, en- neering accountin and relate services
Commodity number	er 69	9B	70A	70B	71A	71B	72A	72B	73A	73B
Livestock and livestock products										***************************************
Other agricultural products  Forestry and fishery products			······			,				•••••
Agricultural, forestry, and fishery services										***************************************
Metallic ores mining										
Coal mining										
Crude petroleum and natural gas									***************************************	***************************************
Construction								******************		
Ordnance and accessories										***************************************
Food and kindred products										***************************************
Tobacco products									******************	•••••
Miscellaneous textile goods and floor coverings					***************************************					***************************************
Apparei										
Miscellaneous fabricated textile products						***************************************				
Furniture and fixtures					***************************************				***************************************	***************************************
Paper and allied products, except containers				***************************************	***************************************					
Paperboard containers and boxes				***************************************			***************************************			
Newspapers and periodicals				***************************************			•	***************************************	***************************************	
Other printing and publishing		······································		***************************************						
Agricultural fertilizers and chemicals								***************************************		
Plastics and synthetic materials										***************************************
Drugs		······································								***************************************
Cleaning and toilet preparations					***************************************		••••••		***************************************	
Petroleum refining and related products					***************************************					
Rubber and miscellaneous plastics products										
Footwear, leather, and leather products					***************************************		•••••		••••••	
Glass and glass products				***************************************					***************************************	
Primary iron and steel manufacturing										
Primary nonferrous metals manufacturing				***************************************						***************************************
Metal containers			***************************************						***************************************	***********
Heating, plumbing, and fabricated structural metal products			······					***************************************	***************************************	***************************************
Other fabricated metal products			••••				***************************************			
Engines and turbines				***************************************						
Farm, construction, and mining machinery				***************************************						
Materials handling machinery and equipment				***************************************	***************************************		***************************************			
Special industry machinery and equipment			•••••	***************************************			***************************************	***************************************		
General industrial machinery and equipment						.,				
Miscellaneous machinery, except electrical			***************************************	***************************************			••••••	***************************************	2,083	
Service industry machinery				***************************************					2,000	***********
Electrical industrial equipment and apparatus										
Household appliances										
Electric lighting and wiring equipment			•••••				***************************************		13	•••••
Electronic components and accessories										
Miscellaneous electrical machinery and supplies			***************************************				***************************************			
Motor vehicles (passenger cars and trucks)										
Truck and bus bodies, trailers, and motor vehicles parts									***************************************	
Other transportation equipment			***************************************						***************************************	
Scientific and controlling instruments									51	
Ophthalmic and photographic equipment			•••••				***************************************			
Miscellaneous manufacturing							***************************************		***************************************	
Motor freight transportation and warehousing							***************************************		***************************************	
Water transportation									***************************************	
Air transportation								***************************************		
Communications, except radio and TV				***************************************				***************************************		
Radio and TV broadcasting										
Electric services (utilities)									]	
Gas production and distribution (utilities) Water and sanitary services			•••••	***************************************		***************************************				
Wholesale trade						***************************************				
Retail trade		400 000								
Finance			280,874	4,020		79			1,640	
Insurance			***************************************	172,850	205 144			***************************************	***************************************	
Real estate and royalties			••••••••		325,144	380.275				
Hotels and lodging places			***************************************			934	40,064			
Personal and repair services (except auto)								66,233		
Computer and data processing services									60,821	
Legal, engineering, accounting, and related services								35	79	177
Advertising				***************************************				]		
Eating and drinking places										
Automotive repair and services			•							
Amusements						***************************************			***************************************	
Educational and social services, and membership organizations		************								
Federal Government enterprises		1,301		751		737		3	<b> </b>	
State and local government enterprises		966	76			7,596				
General government industry			***************************************							
Household industry Inventory valuation adjustment			***************************************	***************************************						
		422,960	280,950	177,621	325,144	389,620	40,064	66,271	64,687	17

\*Less than \$500,000.

## by Industries, 1987 Benchmark—Continued at producers' prices]

Other business and professional services, ex- cept medical	Advertising	Eating and drinking places	Automotive repair and services	Amusements	Health services	Educational and social services, and membership organizations	Federal Government enterprises	State and local government enterprises	Scrap, used and secondhand goods	General government industry	Household industry	Inventory valuation adjustment	Total industry output	Industry number
73C	73D	74	75	76	77A	77B	78	79	81	82	84	85	99	Indus
				64 88									87,484 86,742 7,456	1 2 3
						•••••••••		***************************************	***************************************	***************************************			22,201 6,807 25,452 84,228	5+6 7 8
									3				12,964 618,813 31,438 325,972	9+10 11+12 13
													26,383 38,244 15,982 64,184	15 16 17
									108				16,987 72,875 36,777	20+21 22+23
	32,945 20,732								80 191				81,982 25,511 49,727 87,378	25 26A 26B
									121				84,375 13,512 40,672 36,012	27B 27B 28 29A
													33,229 12,072 137,871 85,572	298 30 31 32
									6				8,700 16,085 43,732 68,091	141 151 161 161 161 161 161 161 161 161 16
									166 256 83 309				56,376 11,904 43,930 31,973	38 39 40 41
93									37 52 15				44,424 14,096 26,753 7,194	42 43 44+45 46
									9 2 36 15			***************************************	21,227 16,254 23,236 20,003	47 48 49
									12 38 25 27				55,819 22,409 22,665 15,361	51 52 53
				27					8				17,615 40,700 48,654 20,823	55 56 57
									26 146 155 11				134,115 68,991 82,128 24,082	59A 59B
	1,949								8 14				85,463 19,725 33,089 43,458	62 63 64
									26				116,095 24,053 76,253 25,908	65B 65C 65D
	963 27,146												161,127 29,396 132,371 67,549	66 67 68A
								291					11,262 423,751 420,694 286,613	68C 69A 69E
			***************************************										172,850 325,144 380,275 40,997	65DE 65DE 65DE 65DE 65DE 65DE 65DE 65DE
70	9,333		92	22									66,302 60,821 177,931 220,728	72B 73A 73B
211,165	15,884	209,177	130,391						217				15,884 209,394 130,704 78,192	73D 74 75
118	45 408	1,844		78,148 	338,393	152,270	33,469	40.75					338,511 152,678 45,396	77A 77A 77E
			744	416				18,754		466,785	7,709	-17,817	69,484 466,785 7,709 –17,817	82 84 85
211,758	109,406	211,021	131,228	78,841	338,393	152,270	33,469	19,045	2,321	466,785	7,709	-17,817	8,175,016	т

Table 2.1.—The Use of Commodities
[Millions of dollars

_		r									ns of dolla
	For the distribution of output of a commodity, read the row for that commodity  For the composition of inputs to an industry, read the column for that industry	Livestock and livestock products	Other agricultural products	Forestry and fishery products	Agri- cultural, forestry, and fishery services	Metallic ores mining	Coal mining	Crude petroleum and natural gas	Non- metallic minerals mining	Con- struction	Ordnance and accessorie:
	Industry number	1	2	3	4	5+6	7	8	9+10	11+12	13
1	Livestock and livestock products	16,818 23,778	1,584 3,855	27	1,251 2,089					241	
3 [	Other agricultural products  Forestry and fishery products			168	32						
+6	Agricultural, forestry, and fishery services	4,003	6,542	1,288	8	519	1	1	2	3,250	2
7 I	Coal mining					11	2,730	3,149	61	1	4
10	Nonmetallic minerals mining	6	254	•••••	2	7	32		452	4,834 44	
12	Maintenance and repair construction	458	710	83	288	88	195	1,844	116	338	20 89
14	Ordnance and accessories	11,566		29 305	33	1	(*)	3	2	13 (*)	69
6	Tobacco products		44			1	18		4		
7	Miscellaneous textile goods and floor coverings	25	26	72	114	(*)	8	4	4	1,760 120	1
9	Miscellaneous fabricated textile products	36	88 295	31	79	38	62	8		223 33,521	1 (2
3	Lumber and wood products									1,271	
5	Paper and allied products, except containers	110 5 9	139 333		10 185	(5)	8	8 2	38   4	1,184 45 52	2
۱ı	Newspapers and periodicals	9	10 10	1 40	3 24	()	1 12	32	24 8	52 204	2 2 12
	Other printing and publishing	102	64 4,607	14 40	7	204	138	837	220	1,310	
П	Agricultural fertilizers and chemicals	142	4,00/	40	2,972		2		(*)		3
	Drugs	198 54			1			7	2	10	
1	Paints and allied products	335	1,175	4 294	215	127	390	289	194	4,688 11,220	] 3
2	Rubber and miscellaneous plastics products	162	357	2 2	36	82	247	26	122	6,677	19
Н	Footwear, leather, and leather products	25 6	(*)	2	3 10	1	(*) (*) 80	1 8	4	993 993	
	Stone and clay products	14	100 15		12	23 134	80 19	265 260	2 43	31,054 10,023	47
	Primary nonferrous metals manufacturing			18		15	13		70	6,194	56
[ כ	Heating, plumbing, and fabricated structural metal products	17	19			43	66	46	61	31,335	
	Screw machine products and stampings	27 68	153	53	26	35 9	146 82	383 22	33 37	280 8,090	1 4
	Engines and turbines Farm, construction, and mining machinery	249	663	14 21	44 78	37	111 1,084		57 253	1,419	:
3	Materials handling machinery and equipment Metalworking machinery and equipment					129 35	95		142	1,416	
	Special industry machinery and equipment		92	(*)	2	8	8		8	200	
9	General industrial machinery and equipment  Miscellaneous machinery, except electrical	27 47	50 123	8 3	4 4	78 12	428 78	157 36	164 19	1,513 126	23
1 2	Computer and office equipment Service industry machinery				2	ļ				6,638	
3 Į	Electrical industrial equipment and apparatus	10	27			27	90	166	64	2,743	
5	Household appliances	19	43	1	8	4	28		8	1,505 9,894	
6	Audio, video, and communication equipment				(*)		(*)	]1		2,011	8
8 A	Miscellaneous electrical machinery and supplies	152	404	1	10	6	2	2	5	845	1
в	Truck and bus bodies, trailers, and motor vehicles parts	90	217	5	40	13	9	7	3	414	3.1
0	Aircraft and parts			156	12	5				2	
2	Scientific and controlling instruments	***************************************		156 15 (*)	8	5	3		1 2	1,421 116	
4	Miscellaneous manufacturing	15 824	16 249	] 1	14 92	20	652	45	2 6 36	878 1,557	i .
BC	Railroads and related services; passenger ground transportation Motor freight transportation and warehousing Water transportation	1,914	1,290	1 24			159 54 19	154	182	8,274	1
Ĕ	Air transportation	20	46 100	7	418	52 7 25 2	19	154 103 86 4	182 12 48 3 22	8,274 302 853 37	1
6	Pipelines, freight forwarders, and related services	222	15 246	4	3	9	6 21	120	22	2,315	1
7   A	Radio and TV broadcasting	972	515	3	59	647	611	1,292	651	1,047	2
BC	Gas production and distribution (utilities)	111	164	1 1	2	74	11 60	556	l 218	322	2
Αl	Wholesale trade	3,861	3,567	186	1,452	15 133	720	523	135 260	26,466	5
B	Retail trade	796	849	77	103	8 69	169	223	231	7,098	1
B	Insurance	438	1,797	102	80		1	1	6	1,966	
В	Real estate and royalties	1 3,000	7,097	14	179	85	622	14,641	154	2,711	2
2A 2B	Hotels and lodging places	. 1 26	54 70	'7	24 182	12 2 33 113 38 5	4	27 10 10 5	106 20	707 139	
3A   3B	Computer and data processing services	1 109	121	16 252	182 90 243 206 92 80 588	33 113	207	801	96	36,297	3
C	Other business and professional services, except medical	362	954 21	252 132	206	38	207 82 46	144 853 69	112	14,948 244	
74	Eating and drinking places	16	17	11	80	1 8	1 19	69	23	1,440	
75 76	Automotive repair and services			131	588		197	191	17	6,117 42	
A B	Health services	I		21		14	42	29	15	25	
78 79	Federal Government enterprises State and local government enterprises	12	13 32	1 6		10	3		17	243 121	: 1
80 I	Noncomparable imports	. 1	17	\	37	31	18		9	) 5	1
81 82	Scrap, used and secondhand goods		***************************************							14	
83 84	Rest of the world adjustment to final uses	***************************************	***************************************								
85	Inventory valuation adjustment		40,021	3,748	12,253	2 224	9,964	28,744	A 754	327,813	12.5
'	Value added	15,074	46,721	3,708	9,948	3,331 3,476	15,488	55,484	8.213	291,000	18,9
٧Ą	Total Industry output	87,484	86,742	7,456		6,807	25,452			618,813	31,

\*Less than \$500,000.

## by Industries, 1987 Benchmark at producers' prices]

Food and kindred products	Tobacco products	Broad and narrow fabrics, yarn and thread mills	Miscellane- ous textile goods and floor coverings	Apparel	Miscellane- ous fabricated textile products	Lumber and wood products	Furniture and fixtures	Paper and allied products, except containers	Paperboard containers and boxes	Newspapers and periodicals	Other printing and publishing	Industrial and other chemicals	Agricultural fertilizers and chemicals	Plastics and synthetic materials	Commodity number
14	15	16	17	18	19	20+21	22+23	24	25	26A	26B	27A	27B	28	\$
60,821 22,262	1,707	262 3,192	34	13 31								86			1 2
2,033 8	(*)	3	1	295		5,874 22	1	108 6 15	(*)	1	2	68 2 636	1	1 6	3 4 5+6
105	15	28	10	4	4	21	7	428	2	1	13	273 1,043	5 552 926	132	9+10
810	39	179	48		42	423	289	303		187	238	576 575	926 55	158	9+10 11
54,695	1	(7)	22	129 (*) 1	4	1 7	15	344	3	3	9	348	92	53	13
	3,664	9,897 346	3,621 683	13,040 19	3,875 1,264	5 136	1,236 973	677 356			94 54			123	16
11 72	2	2	11 17	12,117 1,506	161 552	12 17	13 58	11 1	1	1 1	5	(°) 23	(7)	5 (*)	18
61 3,142	(*) 131	3 24	1 94	111	52 39	20,956 71 64	3,229 146 51	4,804 1 13,139	11,548	6,485	14,631	48 721	48	463	20+2 22+2
5,856 10	952 2	131 2	99	200 4	200 2	279 7	555 4	1,088 4	53 1	12 443	336 206	409 7	55 1	269 2	25 26/
1,880 1,505 187	377 51	11 852	7 594	54 78	30 103	38 848 186	33 215	110 3,444 205	13 491	3,358 379	7,054 2,389	52 18,226	190 1,371 2,533	15 <sup>1</sup> 13,509 95	26E 27/
121 890	***************************************	5,251	3,825	1,526	509	329	114	2,005	557		129	366 757 136		1,470	29/
154 369	18	88 1	78 1	294 (*)		1 386 446	376	386 19	66		39	104 408 1,012	25 69	230 89	29E
5,261 1	35 71	104 198 2	31 117	112 302 313	13 496 230	446 690 9	84 1,197 104	565 1,999 1	182 73 3	81 33 2	238 1,616 13	994	115	103 1,685 (*)	33+34
3,923 19	1	2 207 4	6 2	1	1	211 409	137 131	5 90	(*)	1	1 9	133 68	39 26	(*) 26 14	35 36
5 8,683	2	2	4	(*)		31 53	1,528 469	47 47	68 54	1	7 178	177 59 462	(*) 55	(*) 2 3	36 38
662						479 1,007	372				1	10	1		40
1,020	185	2	1	7	1	1,505	1,378	502	123		53	650	40	13	42 43 44+45
(*) 38	1 6	12 14	5	1 9	6	39 147	79	1 44	18		23	35	2	21	46 47
90 220 90	7	109	224	160 7 20	18	83 113 190	79 13 71 38	368 55 95	100	77 2 13	359 2 40	410 21 77	16	9 83 48	48 49 50
7						22				7	47	21			51 52
(*) 7	(*)	(*)		1	(*)	44 147 114	59 6	5	1		(*)	41	(*)		55 54
1	H	(*)	H		(r)	1	i	ĭ	(*)	ii	3	1		(r)	50
19	1	1	(*)	(*) 5		12 191	1	4 30	1 я	38	29	(*)	(*) 		59/ 59/
						6									60
31 19 18	5 2	5 3	1 2 2	4 6 305	3 2 105	12 14 43	14 10 62	38 12 9	7 3 3	43 121 13	172 527 141	84 20 5	6 1	5 5 3	66
1,842 5 132	10 110	75 277	43 238 27 9	18 280	15 123 7	663 1,026 111	160 369 15 83	920	297	174 327	1 430	ana	(*) 281 781	475	65 <i>A</i> 65E
498 484 3	3 29 (*) 28	9 29 1	27 9 1	7 114	7 21	111 81 5	15 83 1	1,627 107 387	17 48	940 940	1,005 30 368 4	1,494 156 232 42 207	49 15	570 131 59 12 91	650 650
447		48	28	95	29	125	89	152	72	206	241		39		66
2,750 1,336 442 16,850 53 937 355	87 20 9	1,088 152 114	216 112 26 433 2 60 24	519 96 34 2,171	105 40 52 951	1,044 344 182 3,806 73 446 196	344 82 66 2,039 16 379 58	2,292 994 1,074 3,637	277 80 29 999 16	246 21	725 95 77	2,850 2,389 318	304 466 113 747	964 771 149	68/ 686 687
16,850 53	536 8	1,807 11	433 2	I 19	[ 1	3,806 73	2,039 16	3,637 80 303	999 16	21 21 782 27 256 70	3,080	3,141	1 3	1,743	69/ 69I
937 355	131 37	106 41		281 76	129 26				41 47	l	449 191	274 159	226 26	104 77	70/ 706 71/
866 209 192 123	78 8 7	71 3	57 2 52 10 36 99 343 32 20	385 16	102 16	305 22 32 22 230 546 987 218 502	257 19 27	221 167	118 2 11	722 86	973 347	441 41	37	30	71E 72
192 123 866	7 11 61	191 30 91	52 10	144 13 175 342 992 191	69 4 46	32 22 230	16	127 184 205	11 29 69	53 451 897	48 266 616	38 66 1 701	6 83	81 17 1 038	72E 73/
866 1,802 8,657	97 783 19	466 227 76	99 343	342 992	136 202 51	546 987	421 749 730 160 178 15	184 205 450 857 132 732	184 40 53	1,945 869 201 327	1,064 1,061 533 879	1,701 1,164 1,135 220	83 335 194	1,038 358 479 57	730 730
8,657 358 477 5	19 101 2	76 113	32 20 1	191 292 2	4	218 502	160 178	132 732 3	53 184	201 327 5	533 879 16	220 116 5	17 30 (*)	I 91	7:
	12	22	3	25	(*) 97	175 71		62 72	4	78	l		10	53	111 123 144 141 161 161 161 162 162 174 174 177 174 177 177 177 177 177 177
80 235 288 5,056	54 8 47	22 38 18 25	24 7 166	149 12 59	38	71 25 13	63 63 14 32	72 153 84	22 8 2	586 8 55	124 594 21 234	25 85 67 636	5 7 101	19 19 147	79
J,U00			5					828	2	55	234		33		8 6:
															8.
225,473 100,498 325,972	9,588 16,795 <b>26,383</b>	26,104 12,140 <b>38,244</b>	11,628 4,354 <b>15,982</b>	37,181 27,003	10,072 6,915 <b>16,987</b>	46,952 25,923 <b>72,875</b>	19,518 17,259 <b>36,777</b>	47,704 34,278 <b>81,982</b>	16,705 8,806 <b>25,51</b> 1	20,689 29,037 <b>49,727</b>	42,232 45,145 <b>87,378</b>	47,098 37,277 <b>84,375</b>	10,148 3,364	26,308 14,365 <b>40,672</b>	v,
325,972	26,383	38,244	15,982	27,003 <b>64,184</b>	16,987	72,875	36,777	81,982	25,511	49,727	87,378	84,375	13,512	40,672	

Table 2.1.—The Use of Commodities [Millions of dollars

For the distribution of output of a commodity, read the row for that commodity For the composition of inputs to an industry, read the column for that industry	Drugs	Cleaning and toilet prepara- tions	Paints and allied products	Petroleum refining and related products	Rubber and mis- cellaneous plastics products	Footwear, leather, and leather products	Glass and glass products	Stone and clay products	Primary iron and steel manufacturing	Primary nonferrous metals manufacturir
Industry number	29A	29B	30	31	32	33+34	35	36	37	38
Livestock and livestock products		15		***************************************				***************************************		
Forestry and fishery products	6	(*)	15	2	3		1	2	2	
Metallic ores mining		5	43	21	25	1	2	33 399	1,969 1,449	3,930 3
Crude petroleum and natural gas		9	13 17	75,971 490	75 35	2	184	3,513	10	
New construction  Maintenance and repair construction		75	46	952	392	28	130	328	1,294	27
Ordnance and accessories	[	558	160	42		893		57 25	20	
Food and kindred products  Tobacco products		556		42				l		
Broad and narrow fabrics, yarn and thread mills		18		39	812 894	239 197		126 2		4
Apparel	(*)	1 2	(*)	(*) 59	12 24	4 24	(*)	6 2	8 1	) 15
Lumber and wood products		6		59	189	24	237	95	136 28 15 79 3	15
Paper and allied products, except containers	] 161	61 1,146	2	9 191	789 987	6 66	15 707	551 142	15 79	10
Newspapers and periodicals Other printing and publishing	1	2 345	(*) 26	2 17	9 99	1 5	l 1	5 25	3 35	,
Industrial and other chemicals	697	2,971	2,334	1,758	3,905	271	25 982	1,269	1,723	71
Agricultural fertilizers and chemicals		468	1,441	60	15,955	109		189		78
Drugs	21	1,535	5	417	29	33		98	1	
Paints and allied products  Petroleum refining and related products		63 329	252 80	9,933	65 235	10	20 45	70 238	23 332	36
Rubber and miscellaneous plastics products Footwear, leather, and leather products	1 749	1,713	1	620	4,074	250 1,601	173	125	139	ě.
Glass and glass products Store and clay products	I 233	231	8 132	277 51	450 247		1,309 320	71 5,111	5 996	2
Primary iron and steel manufacturing		2	16	42	300	í	320	277	10,233	5
Primary nonferrous metals manufacturing	138	433	534	167	115		1	23	1,470	17,2
leating, plumbing, and fabricated structural metal products	12 64 65	16 196	6		44 439	9	35	100	275	
Other fabricated metal products	65	390	21	397	860 15	43	2	219	772 11	5
Farm, construction, and mining machinery			***************************************					13		
Materials handling machinery and equipment	[ 3	6	1	19	161	(*)	87	2 25	17 524	4
Special industry machinery and equipment	] 17	59	(°)	1	161 233 29	(*)	11 4	32	868	5
Miscellaneous machinery, except electrical	10		2	41	255	`ģ	49	48	207	1.
Service industry machinery	]				13		34	12	434	32
Household appliances					(°) 120	1	5	32	(1)	
Electric lighting and wiring equipment	[ (*)	8	(*)	13 (*)	1	(*)	ď	(*)	Ö	
Electronic components and accessories	1 1	(*)		1	55 23		1	1	4	***************************************
Motor vehicles (passenger cars and trucks) Truck and bus bodies, trailers, and motor vehicles parts	   5	3	(-)	54	13	(*)	4	9		
Aircraft and parts									4	
Scientific and controlling instruments Ophthalmic and photographic equipment	! 28	6 5	2	24 6	43 19	1	16	16 10	21 11	
Miscellaneous manufacturing Railroads and related services; passenger ground transportation	] 3	45 112	1 158	3	19	83 18	185	40	11 1,149	3
namodus and related services, passenger ground renspontation  Motor freight transportation and warehousing  Water transportation	119	369	280	563 889	2,331	88	222	2,527	916	1,7
Air transportation	\ 56	80	וו ן	j 67	115 127	24	12 67	154 61	319 78	1
Pipelines, freight forwarders, and related services	126	79	40 40	5,485 187	249	(1)	122	295	150	1
Radio and TV broadcasting	288	189	74	1,653	1,829	68	478	1,159	2,813	2,5
Gas production and distribution (utilities) Water and sanitary services	167	167 48	43	1,653 1,260 209	511 202	19 10	580 34	789 120	1,898 489	8
Wholesale trade Retail trade	1,439	1,583	343	6,367	4,238	369	682	1,269	4,274 23	3,4
Finance	186	88	(°) 16		386	(°) 50	69	286	247	2
nsurance			6	361	181	10			138	
Real estate and royalties		150 25	58 7	614 27	538 23	45 43	16	17	157 10	1
Personal and repair services (except auto)  Computer and data processing services	48	21		54	118	12	12	55 89 168 408 864	76 108	
Legal, engineering, accounting, and related services	1,568	169	54	126 376	265 580 685 704	30 90	53	168	191	
Other business and professional services, except medical	366	169 395 853 61	54 62 55 18	1,156 321	704	130	375	864 864	1,246 2,010	
Eating and drinking places	111	55	7	51 128	246	28 11	37 88	122	119 103	2
Amusements Health services	2		(*)	3	7	(*)	1	2	2	
Educational and social services, and membership organizations Federal Government enterprises	} 172	38 51	4	145 72	297 86	2 31	8	39	13 87	
State and local government enterprises	17	19		16	31	8	1 7	1 11	43	
Noncomparable imports Scrap, used and secondhand goods	l	187	65	392	1,155	2	87 72		84 2,583	2,
General government industry	[	1								
Household industry Inventory valuation adjustment										
Total intermediate inputs	13,840		6,504 5,568	113,613	47,948	5,018	7,875	23,169 20,563	42,721	42,
Value added			5,568 12,072	24,258 137,871	37,624 <b>85,572</b>	3,681 <b>8,700</b>	8,210 16,085	20,563 43,732	25,370 <b>68,091</b>	

\*Less than \$500,000.

# **by Industries, 1987 Benchmark—**Continued at producers' prices]

Metal containers	Heating, plumbing, and fabricated structural metal products	Screw machine products and stampings	Other fabricated metal products	Engines and turbines	Farm, construction, and mining machinery	Materials handling machinery and equipment	Metalworking machinery and equipment	Special industry machinery and equipment	General industrial machinery and equipment	Miscellane- ous machinery, except electrical	Computer and office equipment	Service industry machinery	Electrical industrial equipment and apparatus	Household appliances	-
39	40	41	42	43	44+45	46	47	48	49	50	51	52	53	54	·
								***************************************		***************************************					
(*)	1 13	(7)	1	1	2	(*)	1	(*)	1	1	1	(*)	1	(*)	5
1	5	12	21 8	4	12	(*)		(*)				18			
33	518	324	552	92	223	74	127	123	156	192	434	136	185	73	
(*)	6	2	4	1	3	2	4	3	2	1	1	2	3	2 34	
1	2 (*)	2 103	10	2	1	(*)	(*) 20 26	1	136 3 (*) 25	17 1 (°) 5	2 (*)	2 (*)	2	2	
11	138	32 31	177	7	46 (*) 7	11 1 2	6	27 4	25 26 83	7	(*) 78	107	29 120	98 17 35	20+ 22+
28 (*) 220 61	231 5 27	132 2 15	329 4 29	24 1 7	64 2 18 35	5 1 34	83 3 20 168	29 2 12	83 2 17	64 2 15 19	90 6 71	130 2 12	132 2 19	308 1 12	20
61	119	242	742 169	4	35	10	168	193	18	19	13 56	86 96	43	96 366	2
6 196	15 243	15 79	17 342		73	7	23			1 3	21	66	69	112	2: 2:
17 19	104 425	40 97	118 859	13 139	73 43 727 3	18 101	23 66 151	33 257	44 325	34 85 (*)	57 1,045	24 435	147 468 (*)	15 642	33+
(*) 13 2,571	325 125 8,294	55 76 7 905	114 171 5,190	(°) 48 1,938	(*) 57 2,988	13 607	(*) (*) 235 1,467	42 46 1,017	1 99 2,135	147 1,338	3 13 335	(*) 20 98 1,229	222 1,117	166 70 1,144	001
3,008 199	3,194	7,905 980 4	2,049 8	652	225 225 997	95	427	365	639	910	335 709 174	1,140	1,214	312	
15 159	1,209 1,475	476 585	729 2,453 33	233 213 1,306	394 440 1,249	193 134 260 66	179 170	103 216 60	189 215 83	189 253 12	194 302	486 389 30	400 220 104	243 567	
17			***************************************	1,306	971 22 122	383 37		6	146	283		122	61	37	44+
3	401 202 115	952 2 63 370	256 30 187	188 451	709 682	225 165	847 130 612	150 372 380 427	1,559 382	210	35 27 42	398 242	89 127	101 23	
20	34		***************************************					3 2	8	1,076	11,591	1,322	3	320	20+ 22+ 2: 2: 2: 2: 2: 2: 2: 33+
()	110	50 1 13	216	476	117	287 1	601	979 1 1	976	80 17	1,398	1,456	843 64	592 80 190	
(*)	1	(*)	(*) 11 16	(*) 155	(*) 129 9	48	(*) 12 10	(°) 30 11	1 44 16	(*) 46 9	913 4,063 63	(*) 6	(*) 584 20	(*) 137 2	
2	11	21	11	22	72	1	9	2	4	2 22	9	1	4 27		5
1	96 11	5 5	13 10	2 3	5 7	1 2	4 7	3 5 2	11 7	3 7	17 15	396 4	40 6 17	303	
1 41 190	22 137 680	107 433	10 15 107 551	1 8 105 3	11 38 306	4 7 58	7 27 151	2 21 84 3	22	2 22 100	24 26 109	32 30 156	i 61	108 31 166	6
190 3 50 (*)	680 13 128 2	433 13 27 (*) 85	551 21 156 2		306 15 120 1	58 2 20 (*) 29	5 91 1	91 1	132 6 123 1	4 64 (*) 72	109 6 740 2 192	156 8 120 (*) 76	156 5 220 1	166 3 78	6 6
	117 378	l '		39			I .	76 154 40	l		1		289	36 135	6
70 26 796	159 34 2,479	423 165 79 1,639 3	262 54 2,302	139 44 14 707	116 29 1,742	54 20 11 460 3 32	57 16 784	40 16 929 6	81 18 1,153 8	253 43 8 565 7	338 30 45 4,147	186 51 37 1,526	81 20 1,407	135 69 18 1,114	6 6 6
139 70 26 796 3 38 20	378 159 34 2,479 30 186 84	3 205 57	685 262 54 2,302 21 306 85	50 22	267 116 29 1,742 8 104 58	32 32 14	16 784 15 108 46	106 28	110 40	7 166 28	18 361 76	4 59 31	246 41	1 110 23	6 7 7
		139		41	79 25		177			ı	.,,		4	41	666666667777777777777777777777777777777
54 10 5 10 23 47 241 14 37	285 207 20 23 179 409 278 139 246	40 81 717 225 265 69 93	221 30 49 104 231 481 821 134 227	21 52 45 90 104 22 26 2	79 25 34 80 171 198 612 74 35	9 13 44	40 22 41 135 205 355 91 184	127 29 15 22 112 150 272 57	130 38 29 58 142 222 291 76 78	188 20 22 56 150 485 318	521 337 22 52 414 473 151 199 229	84 36 14 27 110	120 128 25 42 128 221 775 77	33 17 20 42	7 7 7
47 241 14	409 278 139	225 265 69	481 821 134	90 104 22	198 612 74	13 44 64 149 24 12	205 355 91	150 272 57	222 291 76	485 318 84	473 151 199	132 346 56 26	221 775 77	118 318 35 16 (*)	7 7
37	246 5	93 1	227 2	26 2	35	12	184	63	78 5	114	229 5	26 1	101	1	,
9 4	38 46 14	97 36 11	40 52 29 65 34	5 11 5		2 12 (*)	19 22 7	6 29	19 33 6 58	20 16	29 22 9	20 8 5 8	9 26 7	25 50 8 52	′7
6 7	14 20 41	20	65 34	26	168 12	( <u>'</u> )	76 11	67 	58 11	43 7	1,066	8	142	52	
					***************************************										
8,483 3,421 1 <b>1,904</b>	24,930 19,001 43,930	17,787 14,187 <b>31,973</b>	22,155 22,269 44,424	7,870 6,226 <b>14,096</b>	14,902 11,852 <b>26,753</b>	3,884 3,309 <b>7,194</b>	8,756 12,470 <b>21,227</b>	7,659 8,595 <b>16,254</b>	10,836 12,400 <b>23,236</b>	8,164 11,839 <b>20,003</b>	31,625 24,195 <b>55,819</b>	11,987 10,422 <b>22,409</b>	11,056 11,609 <b>22,665</b>	8,767 6,594 <b>15,361</b>	

## Table 2.1.—The Use of Commodities [Millions of dollars

					1						ons of dolla
Samuel Simonian Simon	For the distribution of output of a commodity, read the row for that commodity  For the composition of inputs to an industry, read the column for that industry	Electric lighting and wiring equipment	Audio, video, and communi- cation equipment	Electronic components and accessories	Miscellane- ous electrical machinery and supplies	Motor vehicles (passenger cars and trucks)	Truck and bus bodies, trailers, and motor vehi- cles parts	Aircraft and parts	Other trans- portation equipment	Scientific and controlling instruments	Ophthalmi and photo graphic equipmen
3	Industry number	55	56	57	58	59A	59B	60	61	62	63
1 4	vestock and livestock products										
3 F	ther agricultural productsorestry and fishery products					***************************************			***************************************	***************************************	
5+6 M	gricultural, forestry, and fishery servicesletallic ores mining	1	2	2	89	4	3	3	(*)	13	
8 C	oal miningrude petroleum and natural gas	2	3	1	2	63	18	8	3	6	2
11 N	onmetallic minerals mining				······		1			(*)	
13 0	laintenance and repair construction	107	153	493	111	431 1	469 1	495 38 5	471 (*) 2	407 (*) 77	
14 Fo	ood and kindred productsobacco products	2	1	5	1	(*)	2	5	2	77	***********
16 IB	road and narrow fabrics, yarn and thread mills	11			8	117 328	2 112	84 96	11 122	312 394	
8 A	pparel	1	10 (*)	12 (*)	3 (*)	14 3,520	3 48	6 163	3 182	394 32 (*)	
21   Lu	umber and wood products urniture and fixtures	29	27 446	11	1 1	1,678	199	31	471 60	173 62	
4   Pa	aper and allied products, except containers aperboard containers and boxes	5 239	101 137	34 80	13 140	99 57	28 115	25 13 7	9 7	262 343	1,1
A I N	ewspapers and periodicals	2 15 99	102	4 32	4	5 43	3 32	4 53	1	11 145	,
\   In	ther printing and publishing		1	789	390	606	216	36	55	298	4
B P	gricultural fertilizers and chemicals	409	105	169	111	55	365	96	184	574	1
3   C	rugsleaning and toilet preparations						8	***************************************		3	
1   P	aints and allied products	30 30	26 24	42	47	1,615 236	222 145	140 114	144 47	45 126	
4   F	tubber and miscellaneous plastics products	372	1,418	2,539 1	898	8,393 5	2,158 1	703 1	289 (*)	1,444 4	4
6 IS	ilass and glass productstone and clay products	641 24	23	403 53	1 19	1,291 247	85 366	15 203	(°) 236 58	194 117	ì
17 I P	rimary iron and steel manufacturing	24 747 806	117 420	130 1,956	244 1,205	717 85	4,421 3,046	1,349 3,539	934 437	1,291 1,357	1
9   M	leating, plumbing, and fabricated structural metal products		81	187	86		1,278	183	853	20 439	
1 S	crew machine products and stampings Other fabricated metal products	558 278	324 411	443 1,743	213	9,934 1,645	2,280 1,384	957 928	181 478	1,032 1,312	1
3   E	ingines and turbines					2,371	58		1,057 110		
5 F	arm, construction, and mining machinery daterials handling machinery and equipment fetalworking machinery and equipment					13	8		] 1		
8 I S	pecial industry machinery and equipment	1	38	88 126	48	1,105	209	1,145	50	178	
io I N	Seneral industrial machinery and equipment	(*) 42	38 42	12 108	59	68 863	1,411 2,658	164 772	503 71	155 191	
1   C 2   S	Computer and office equipment	1	108 5	170		2,773	176	41	80	757	
3 E	Electrical industrial equipment and apparatus	413	237	155	203	212	90	93	402 148	1,295	
55   E	Electric lighting and wiring equipment	485 (*) 98	272 1,472	78 36	163 13	(°) 495 1,347	(*) 28 14	1 962	90 13	206 20	1,
7 E	Electronic components and accessories	l 16	8,193 156	4,625 26	1,304 1,025	856 3,740	381 871	1,211 77	7 129	7,877	1,
Ă N B T	fotor vehicles (passenger cars and trucks) ruck and bus bodies, trailers, and motor vehicles parts			3	6	1,548 40,005	184 6,259	5	602 313	16	
60   A	ircraft and parts  After transportation equipment			ļ		51	14	15,912	40 626		
32   S	scientific and controlling instruments Ophthalmic and photographic equipment	3 6	54 10	195 13	9	1,234	27 14	2,217 18	70	2,295	
4 N	hiscellaneous manufacturing lailingads and related services; passenger ground transportation	37	13	11 46	4	59 572	11	15	j 5	46	
BIN	Notor freight transportation and warehousing	146		214 10	151	2,168 43	936 26	220 12	202	362	
DIA	Vater transportation	148	220	297	241	685	194	1,182	62	16 338 2 432	
6   C	Pipelines, freight forwarders, and related services	65	(*) 159	187		159	310	359	(°) 92	432	
AIE	Radio and TV broadcasting	185	247	789		491	731	660	191	758	***************************************
C   W	Bas production and distribution (utilities)	54 18	52 21	99 34	41	342 113	261 59	144 47	26 28		
вІР	Vholesale trade	1,138 5 163	5	2,125 7	11	10,545 124	3,688 43	1,552 27 883	1,328 10	3,212 30	Į.
	inance	163 27	163 59	450 70	222 45	493 345	159 142	883 113	50 29	452 158	;
	Owner-occupied dwellings	105	326	389	144	117	159	459	346	774	
A H	totels and lodging places	87 18	30	150 39	134	79 103	24 80	766 46	9	72	
AIC	Computer and data processing services	30	96	86 317	37 189	106 220	92 212	103 508		100	
CIC	Other business and professional services, except medical	166 268 66	449 782	586 464	244	543 2,434	484 1,807	1,016 1,929	194	1,030 2,115	
74   E	Eating and drinking places	66	93	157	118	193	150	148	37	308	İ
76   A	Automotive repair and services	69	4	71 23		482 23	2,196 4	101 21	100 12		
'B   E	lealth services	1 8		123 34	16		81	122		155	
79   8	Federal Government enterprises	21 6	. 8	i 19	10	64	172 42 918	120 17	1 4	24	1
30   N 81   S	voncomparable imports	32	233	195		291	918 155	99		340	ļ
82 I C	General government industry										
84   F	lousehold industry nventory valuation adjustment		***************************************	***************************************							
] ] ]	Value added	8,532 9,083	20,363 20,337	21,758 26,895	11,371 9,452	109,111		42,620	12,687	36,349	8,
	rotal industry output	17,615	40,700	48,654				39,508 <b>82,128</b>	11,396 <b>24,082</b>	49,114 <b>85,463</b>	11,2 19,7

\*Less than \$500,000.

## **by Industries, 1987 Benchmark—**Continued at producers' prices]

Miscellaneous manufacturing	Railroads and related services; passenger ground trans- portation	Motor freight transportation and warehousing	Water trans- portation	Air trans- portation	Pipelines, freight forwarders, and related services	Communi- cations, except radio and TV	Radio and TV broad- casting	Electric services (utilities)	Gas production and distribution (utilities)	Water and sanitary services	Wholesale trade	Retail trade	Finance	Commodity number
64	65A	65B	65C	65D	65E	66	67	68A	68B	68C	69A	69B	70A	8
2 20 3		5	1 3 3 3	6		4	4	20	2	6	145		28	1 2 3 4
3	(7)		9		93			13,284	16,417	5	24	9		5+6 7 8 9+10
189 65	4,213 (*) 9	438 (*) 1	128 (*) 65	470 1 279	441 4 8	6,678 1 2	285 10	8,764 (*) (*)	(*)	878 4	2,816 15 69	5,741 1 949	1,966 1 3	12 13 14 15
324 43 18 126 724	1 15 (*)	5 7 13 15	63 95 74	(*) 14 9	(*) 116 35	73	(2)	4 (*)	(;)	1 142	58 63 163 1,335	26 23 48 56	128	17 18 19 20+21
289 434 7 88 337	19 7 7 115 86 33	52 67 25 268 80	7 13 3 48 18 21	56 1 14 149 17	35 29 8 154 8	80 43 18 689 93	14 1 6 53 30	36 12 6 122 423	2 17 4	68 2 20 509 2	1,746 4,237 92 3,792 70	2,948 526 86 181 27	832 3 304 3,667 11	22+23 24 25 26A 26B 27A 27B
692 1 143 90 947 101	1 2 2,132 144	3 17 5,794 1,117	42 731 76	8,583 19	89 66	52 109 117 394	9	3,078	5 338 6	260 253	36 2,759 1,174	29 2,112 421	29 418 80	29A 29A 29B 30 31 32
101 28 144 548 1,839	37 8 83 7	7 5 9 1	8 (*) 195	2 (*) 3 2	6 8 2	5 15 1 1 44	(*)	1 11 9 2 110 15	(*)	(*) 35 12	61 164 109 32 631	22 8 18 7	80 20 43 10 1	33+34 35 36 37 38 39
1 131 288 3	9 267 44	263 42	2 499 163	48 55	36 24	329 181 242	1	98 20 625	2	312	236 27	596	14	40 41 42 43 44+45
76	72	16	178	20	1	4	1	12 81	2	2	262 98 4	33 9	3	46 47 48
25 124 5	291 155 1	76 26 8	573 157 1	43 43 2	116 18 12	301 7 58	2 20	73 47 4	5 5 47	5 5	91 217 49	12 71 38	64 6 48	49 50 51
5 26 90	1 148	20 98 (*) 48	1 12 13 36	2 10 (*)	27	264	22	198	(7)	3	121	38 87 (*)	9	52 53 54
22 4 397 12	22 1 11 55	48 4 6 69 19	36 (°) 33	9 7 90 25	1 7 8 45	(*) 55 2,179 1,683 206	(*) 51 778 46	(*) 130 1 213	9 (*) 3 100	24 (*) 1 18	36 21 22 214	37 33 4 130	41 37 211 368	55 56 57 58 59A
10	132 856	397	1	13 3,336	12	14	2	13	5	726	348	238	50 66	59B 60
8 14 1,218 83 494 23 77 1	30 10 14 2,322 122 38 82 720 47	45 45 31 260 18,968 91 242 3,543 1,425	364 32 5 49 15 74 2,472 69 1,425	30 14 37 65 174 155 4,158 4,821 926	1 16 24 78	19 68 94 72 142 15 234 2 33,184	22 191 111 34 62 2 210 1	93 26 22 3,550 408 415 336 15	17 17 6 6 10 16 25 108 290 290	398 5 10 36 73 14 28 4 74	66 190 387 498 967 110 4,336 396 5,573	23 116 413 724 1,150 56 777 33 4,574	8 1,047 410 561	62 63 64 65A 65B 65C 65C 65C
293 64 109 1,731 19 260 71	99 2 33 788 200 336 189	964 43 42 1,789 3,230 489 957	570 4 100 565 4 1,303	244 14 36 2,266 67 2,110 371	973 37 130 131 26 1,026 531	480 22 1,136 883 41 1,898 65	190 471 24 3 33 154 4 293	27 5,812 202 1,342 48 1,545 952	165 20,956 24 291 20 445 51	37 498 610 360 58 159 1,068	3,277 1,831 311 9,954 764 5,778 494	9,939 1,011 687 1,696 902 3,679 532	1,702 104 293 1,246 135 48,309 3,280	67 68A 68B 68C 69A 69B 70A 70B 71A
242 24 31 14 332 362 1,683 236 240	301 69 36 349 172 617 34 179 589	2,165 166 91 342 547 1,353 238 555 4,401	270 73 1,501 246 56 34	1,005 38 421 717 351 1,073 1,741 2,288 286 43	936 86 50 452 440 329 644 476 271	2,806 81 403 1,647 710 1,058 1,176 503 523 699	1,568 33 346 123 401 470 82 231 39 9,383	507 42 268 909 508 519 79 135 474	140 8 37 239 98 171 20 36 218	80 38 142 89 137 134 18 54 4	9,905 2,978 1,761 399 4,900 20,686 8,482 5,786 9,026 1,033	24,309 599 1,982 1,961 14,163 7,477 20,898 5,504 6,870 199	113	_76
124 91 8 968	133 58 62 180	56 147 135 10	62 7 (*) 2,880	7 7 22 4,262	115 58 7 61		130 22 26 35	346 325 19 7	23 129 8 14	10 43 1 1	658 871 379 2,710	424 1,455 427 134	774 7,115 42 3,898	77A 77E 78 79 80 81 81
17,347 15,742 <b>33,089</b>	16,774 26,684 <b>43,458</b>	51,373 64,722 116,095	16,406 7,647 <b>24,053</b>	41,048 35,205 <b>76,253</b>	10,599 15,309 25,908	66,178 94,949 1 <b>61,127</b>	15,936 13,460 29,396	46,665 85,706 132,371	41,224 26,325 <b>67,549</b>	7,477 3,786 11,262	125,804 297,947 <b>423,751</b>	127,371 293,322 <b>420,694</b>	142,016 144,596 286,613	83 84 85 1 VA T

Table 2.1.—The Use of Commodities

[Millions of dollars

	For the distribution of output of a commodity, read the row for that commodity  For the composition of inputs to an industry, read the column for that industry	Insurance	Owner- occupied dwellings	Real estate and royalties	Hotels and lodging places	Personal and repair services (except auto)	Computer and data processing services	Legal, engi- neering, accounting, and related services	Other business and professional services, except medical	Advertising
	Industry number	70B	71A	718	72A	72B	73A	73B	73C	73D
1	Livestock and livestock products  Other agricultural products			19	2		••••••		27	
3   1	Forestry and fishery products Agricultural, forestry, and fishery services		2,584	2.002	1 217	10		11	57	
+6 📙	Metallic ores mining			2,002						
8	Coal mining			1		4	***************************************		4	
10   1	Nonmetallic minerals mining						***************************************			***************************************
2   1	Maintenance and repair construction	517 (*)	15,921	21,677	1,483 (*)	646	165	313	1,466 205	
14	Food and kindred products	2		(*)	104	20	1	9	140	***************************************
16	Tobacco products				48	189	***************************************	***************************************	1	
18	Miscellaneous textile goods and floor coverings			(*)	8 97	15 339	(*)	1	777	•
19 📗	Miscellaneous fabricated textile products	11		5 34	531 5	359 25	1	1 31	10 28	
23	Furniture and fixtures			2	(*)	1 1	1	3	3	
25	Paper and allied products, except containersPaperboard containers and boxes	143 1		452 22	295 6	304 22	365 11	639 36	898   34	
SAII	Newspapers and periodicals	24 1,389		16 1,284	34 332	22 689	17 2.067	31 1,518	78 2,955	6
ZĂ I	Other printing and publishing	5	1	24	5	234	3	14	774	,
28   1	Agricultural fertilizers and chemicals		269	111	212	34			291	
A B	Drugs			36	242	898	9	37	47 717	
30 I	Paints and allied products Petroleum refining and related products	98		389	242	1 310	121	458	137 690	
32	Rubber and miscellaneous plastics products	21	73	540	772	1,107	991	282 37	1,753	
34   35	Footwear, leather, and leather products	16 1		10	9 479	691	4 3	37 34	20 181	
36	Stone and clay products	1		31	30	246	1		60 18	
38	Primary nonferrous metals manufacturing	***************************************				29		······································		•••••
39   40	Metal containers		100	61		***************************************			246	
41	Screw machine products and stampings			71	26	61 184	26	106	152 214	
43 l	Engines and turbines								101	
45 46	Farm, construction, and mining machinery Materials handling machinery and equipment Metalworking machinery and equipment		195	]					510 258	
47 48	Metalworking machinery and equipment	1		1 2	2 (*)	13	2	7 3	584 274	
49	General industrial machinery and equipment			24		53		44	724 262	
51	Miscellaneous machinery, except electrical	10		21	6	1 464	972	259	354	
52 53	Service industry machinery	(*)			***************************************	157 39	88	1	253 559	***************************************
54	Household appliances Electric lighting and wiring equipment	0.00		59 64	7 123	658		66	29 180	
56 1	Audio, video, and communication equipment	24		22	123	27 24	11	17	95	
58 I	Electronic components and accessories	170		138	3	1,608 28	1,746 441	15 339	3,335 636	
9A   9B		42		48	16	31	15	178	113	
60	Aircraft and parts Other transportation equipment								264	
62	Ophthalmic and photographic equipment	5		3	34	26	37	6	136	
64 I	Miscellaneous manufacturing	254 141		91 134	18 116	600 1,412	29 25	718 378	1,397 353	
5A	Railroads and related services; passenger ground transportation	325 406	8 12	445 595	106 173	78 303	62 113		366 683	
5C [	Water transportation	406 7 502	3	595 14 424	173 10 46	303 21 187	551	1,673	126 3,276	
5E I	Pipelines, freight forwarders, and related services	69		115	49	4	. 3	10	15	
67	Communications, except radio and TV	2,405		1,539	587	981	1,571	2,204	3,403	
8A 8B	Electric services (utilities)	98 4		308 60	1,278 604	1,192 476	295 39	467 85	1,274 418	ĺ
8C	Water and sanitary services	298 277	144	75 493	372 558	144	14 904	169 1,199	84 3,037	
98	Retail trade	46	256	229	50	83	41	223	258	<b>l</b> .
	Finance	5,832 54,111	1,619 9,705	6,294 6,322	1,931 47	844 72	543 36			ļ
	Owner-occupied dwellings	4,830	12,218	32,320	1,523	3,767	2,051	8,826	6,374	1,1
'2A	Hotels and lodging places	1,047		910	28	84	87	3,128	1,050	''
3A	Personal and repair services (except auto)	192 1,153		763 74	684 18	356	56 7,058	557 8,284	277 6,035	]
3B 3C	Legal, engineering, accounting, and related services	2,823 1,963	1,657 1,347	2,190 7,363	630 2,690		491 1,674	15,381 16,011	5,285 14,020	}
3D	Advertising	2,025 2,856		6,263 3,338	658 50	1,492	533 473	493	2,320	
75	Automotive repair and services	799		1,381	541	870	464	2,717	2,412	
	Amusements	66			17	19	11	121	152	
7B	Educational and social services, and membership organizations	63		194	130 189		344 259	921	1,339 1,559	
79	Federal Government enterprises	25		112	233	122	20	114	118	
81	Noncomparable imports	618			60	10			928	
82	General government industry									
84	Household industry				***************************************				***************************************	
- 1	Inventory valuation adjustment	86,428			18,787	32,319	25,051	73,250		4,
	Value added	86,422			22,211	33,983	35,770	104,682		10.

\*Less than \$500,000.

## **by Industries, 1987 Benchmark—**Continued at producers' prices]

Eating and drinking places	Automotive repair and services	Amusements	Health services	Educational and social services, and membership organizations	Federal Government enterprises	State and local government enterprises	General government industry	Household industry	Inventory valuation adjustment	Total intermediate use	Personal consumption expenditures	Gross private fixed investment	Change in business inventories	Commodity number
74	75	76	77A	77B	78	79	82	84	85		91	92	93	S
391 1,446 1,673		20 8 4 571	62 121 26 158	83 95 31 485	4 14 16 3	1 125				81,465 59,031 10,351 21,754	3,090 15,682 3,763 647		-719 -4,261 101	1 2 3 4
5	6	2	6	8	1,061	1,062				7,268 21,498 97,326 11,974	138	446 84	19 1,100 –1,758 –8	5+6 7 8 9+10
1,836 47,037	654	1,017 (*) 655	2,742 2 3,035	7,154 5 2,970	571 (*) 393	16,093 1 4				44   124,100 1,304 125,260	1,099 201,153	358,627 17,300 198	457 1,771	11 12 13 14 15 16
25	16 169 (*) 9	69 9 138 91	16 374 776	46 10 243 69	14 4 1 78	10 30 6				3,664 35,123 8,549 14,438 9,369	20,774 1,047 4,992 71,153 10,088	2,369	242 599 412 1,446 333	16 17 18 19
27 (*) 735 869	1 1	209	46 4 1,542	200 1 1,529	32 15	50		***************************************		68,635 3,867 69,529 24,501	1,820 19,469 11,902 292	3,920 15,467	1,157 596 916 127	20+21 22+23 24 25
6 294 62	189 16 43 80 58	28 387 167 9	124 180 2,619 6,516	120 578 9,745 226 62	3 383 8	\62 162 1,137 119				2,547 49,322 79,565 12,543	11,741 10,923 978 784	795	449 1,188	26A 26B 27A 27B
117	10 785 3,663	11 3	6,464 839	127 189 39	(†) 29	3 52 1				39,534 11,676 6,952 11,365	23,958 25,019 194		138 502 1,199 558 197	28 29A 29B 30
128 1,461 66 339 37	3,663 1,331 5 847 37	104 386 53 3	922 7,834 12 789 289	984 1,035 36 252 5	641 49 14 3	4,249 115 2 9 142				70,488 78,219 3,578 15,366 43,245	60,189 11,669 13,619 1,518 2,705	155	3,001 1,292 467 179 606	32 33+34 35 36
1 21	(*)	1 28	5	18 (°)	1	(*)				74,182 57,761 11,619 39,226	11 72 525	13 36 21 2,811	1,204 864 24 557	37 38 39 40
9 52	3,331 4,815 245	30 59 1	244 176	167 289 (°)	90 8	31 31 61 211				29,847 43,780 8,316 6,177	1,464 3,600 461 248	1,945 2,302 16,909	1,204 864 24 557 237 604 208 333 42 50	41 42 43 44+45
1 53 92 115	18 13 53 1,252	18 1 1 1 1	8 3 1 19	11 1 1 32	4 6 17 14	15 13 429				2,749 10,100 3,126 14,038 14,927	583 176	5,032 13,439 15,053 11,072 747	50 198 153 101	46 47 48 49
3 15	675 173	7 55 (*)	43 9 1 8	107 11 8 13	3 22 2 3	2 19 504 50				15,346 12,881 17,719 2,743	3,290 883 161 11,997	33,476 7,186 5,878 2,657	331 306 110 3	51 52 53 54
87 7 4	955 181 532	66 4 7 36	308 7 22 310	202 122 190 167	26 6 6 38	105				15,549 10,561 42,174 12,838	2,278 18,387 263 5,277 101,875	435 21,728 2,755	608 446 787 361	55 56 57 58
23	9,976 34 36	103	108 5 6,698	119 10 124	267 33 4	194 129 17				2,370 61,127 22,583 2,763 17,485	3,133 316 11,043	62,933 6,591 8,843 3,183 33,814	8,115 1,745 2,132 1,070 1,285	59A 59B 60 61
7 293 385 1,541	41 47 294 802	13 186 183 93 188	683 261 337 842	498 767 237 791	13 53 724 1,616	15 43 440 309				7,770 9,277 27,231 80,137	4,456 4,625 27,179 13,080 20,258	5,653 3,876 827 2,343	1,285 398 2,181 553 755	63 64 65A 65B
62 171 2 804	112 486 92 1,021	41 234 2 658	84 955 20 2,774	2,603 22	77 926 10 146	98 75		***************************************		8,029 36,314 18,525 81,923 924	4,177 31,439 2,553 61,963 1,326	167 819 4,389	755 49 97 39	65C 65D 65E 66
4,445 364 329 9,302 27	1,006 520 82 4,700		3,172 1,499 289 6,618	964 255	281 83 83 376	4,483 3,082 303 1,566				79,596 55,987 12,350 210,780	53,318 25,544 14,864 111,741	39 161	4,929	68A 68B 68C 69A
2,236	4,855 4,201 2,263	718 717	1,449 1,223	131 2,085 715	376 10 45 43	403 492		***************************************		37,597 121,959 93,582	373,725 135,789 81,638 325,144	11,178		69B 70A 70B 71A
8,898 28 569 216 2,226	4,643 153 1,790 18 764	412 327	21,791 466 986 4,764 2,169	409 1,402	529 26 9 30 79	1 17				225,105 18,052 17,186 53,578 127,255	122,178 20,180 48,030 855 31,456	10	39	72A 72B 73A 73F
4,140 4,629 790 404 965	4,027 1,517 865 2,503	3,869 2,605 578 476	9,636 912 1,939 3,374	5,121 3,256 1,163 1,300	451 3 77 520 38	856 104 113		***************************************		165,951 107,841 43,381 61,098	12,602 661 169,638 67,684		59	20+21 22+232 25 26 26 26 26 26 27 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29
299 118	18 168 528 374	15,940	6,761 718	969	38 13 381 25	81				30,722 7,505 12,086 24,980 4,424	47,411 363,015 148,974 6,430			76 77A 77E
187 73	12 169	154	45	855	1,085					39,151 6,460	14,152 29,295 13,705 -31,136	-24,960	85 1,969	81 82 82
100,603 108,791 <b>209,394</b>	68,309 62,395 130,704	40,640 37,552 <b>78,192</b>	119,710 218,801 338,511	80,088 72,590 <b>152,678</b>	11,636 33,760 <b>45,39</b> 6	41,734 27,750 <b>69,484</b>	466,785 466,785	7,709	-17,817 - <b>17,817</b>	3,602,186	7,709		-17,817 28,037	VA

## Table 2.1.—The Use of Commodities by Industries, 1987 Benchmark—Continued [Millions of dollars at producers' prices]

ĕ	For the distribution of output of a commodity, read the row for that commodity	<u> </u>	t producers		Government p	urchases	State a	ind local gove	rnment		T
ity number	For the composition of inputs to an industry, read the column for that industry	Exports of goods and services	Imports of goods and services	Total	National defense	Non- defense	Total	purchases Education	Other	GDP	Total commodity output
Commodity	habita a anta a	<u> </u>	05				Total	_	99		
	Industry number	94	95		96	97		98		244	20.000
1 2 3	Livestock and livestock products	485 12,747 544	-808 -2,353 -3,747	12 750 1,112	2	10 750 -1,112	84 587 -413	30 220	54 368 -419	2,144 23,152 -864	83,609 82,183 9,488
4	Forestry and fishery products Agricultural, forestry, and fishery services	122 559	-3,747 -16 -1,349	121 -141	38 -142	-1,112 84	1,040	284	756	1,914 -466	23,668 6,802
5+6 7	Metallic ores mining	2,663	<b> </b> −65	86	56 5	29	32	21	11	3,953	25,451
9+10	Crude petroleum and natural gas	2,663 1,494 633 15	28,965 734	-173 2	<b>–</b> 2	-177 4 8,055	-19	10.001	-19 61.020	-29,318 -90 445,303	68,008 11,884 445,347
11 12 13	New construction Maintenance and repair construction  Ordnance and accessories	81	-467	15,550 6,258 22,745	7,495 4,358 20,365	1,900 2,380	71,111 25,728 117	10,091 5,912	19,816	49,367 26,873	173,466 28,177
14	Food and kindred products	2,725	-18,538 -879	2,025	189	1,836	5,854 -11	3,739	2,114 -10	204,376 22,717	329,636
15 i 16	Tobacco products  Broad and narrow fabrics, yarn and thread mills	2,591 1,407 782	-3,601 -919	115	105	10 27	142	58	84 43	-291 7,717	26,381 34,832 16,266
17 18 19	Miscellaneous textile goods and floor coverings	1,197 362	-25,395	30 567	566	1 11	51 853 441	15	838 347	49,821 9,637	64,259 19,006
20+21	Miscellaneous fabricated textile products  Lumber and wood products	3,645	-1,772 -6,399	185 45	566 140 32 39	45 13 90	113	95 59 992	55 784	4,301 32,833	72,936 36,700
22+23 24	Furniture and fixtures  Paper and allied products, except containers	5,922	-5,287 -9,914	129 366 74	l 124	243 31	1,775 2,240 158	1,183	1,057 125	11,432 786	80,961 25,288
25 26A	Paperboard containers and boxes Newspapers and periodicals	262 555	-126 -226	153	42 15 428	138 669	456	1,183 32 302	154	13,128 17,804	15,674
26B 27A	Other printing and publishing Industrial and other chemicals	1,062 14,630	-1,335 -10,727	1,097 1,893	1,793	100	4,870 2,203	3,403 567	1,466 1,635	10,286	67,126 89,852
27B	Agricultural fertilizers and chemicals	542 5,364	-990 -2,009	25 13	9 13	15	324	111	213	823 3,872	13,365 43,407
29A 29B	Drugs	2,959 983	-7,590 l -1,281	795 202	472 160	324 42	2,865 439	86 119	2,778 321	24,186 25,920	35,862 32,872
30 31	Paints and allied products	342 6,128	-214 -13,332	3,193	2,649	545	7,931	228 3,789 88	66 4,142	818 67,111	12,183 137,599
32 33+34	Rubber and miscellaneous plastics products	3,233 666 777	-9,702 -9,700	50 50	480 47	157 4	1,348 106	(*) 66	1,260 105	8,631 5,209	86,851 8,787
35 36	Glass and glass products	1,019	-1,837 -4,513	636 50 59 108 151 644	22 51 78 395 57	37 57 72	273 170	66	207 104	968 95	16,335 43,340
37 38	Primary iron and steel manufacturing	1,407 3,303	-10,824 -6,992	151 644	78 395	72 250	57 58	6 4	51 54	-7,982 -2,014	66,201 55,746
39 40	Metal containers Heating, plumbing, and fabricated structural metal products	166 869	-155 -961	57 658 138	491	168	7	4	3	120 4,460	11,739 43,686
41 42	Screw machine products and stampings	2,123 2,634 2,899	-2,261 -6,573	481	110 407	168 28 75 167	277 550	216 177	61 373	1,978 3,241	31,826 47,022
43 44+45	Engines and turbines	1 6.063	-2,102 -5,402	2,045 321 321 220	1,879 303	18	265 1,358	84	373 265 1,274	6,078 19,829	14,394 26,005
46 47	Materials handling machinery and equipment	540 2,335	-1,321 -4,911	321 220	303 312 180	9 40	13 236	134	9 102	4,627 11,951 13,285	7,376 22,051
48 49	Special industry machinery and equipment	2,696 4,182	-4,993 -6,947	560	76 542	6 18	74 162	69 (*)	102 5 162 135 786	9,183	16,411 23,221
50 51	Miscellaneous machinery, except electrical	1,660 13,167	-604 -17,329	2,657 4,168	2,573 3,493	84 675	251 1,982	116	135 786	4,929 39,085	19,855 54,431
52 53	Service industry machinery	1,217 1,847	-1,504 -3,346	123 636	101 467	21 168	655 273	476 140	179 132 134 189 368 94	8,865 5,557	21,746 23,277
54 55	Household appliances	943 1,358	-2,950 -3,341	42 62	38 41	4 21	235 472	101 284	134 189	12,927 1,871	15,670 17,421
56 57	Audio, video, and communication equipment	4,137 12,596	-20,190 -13,704	5,265 5,912	4,964 5,884	301 28	703 174	335 81	368 94	30,476 6,029	41,037 48,203
58 59A	Miscellaneous electrical machinery and supplies Motor vehicles (passenger cars and trucks) Truck and bus bodies, trailers, and motor vehicles parts	2,404 12,918	-4,511 -61,157	1,671 740	1,577 609	95 131	191 5,714	71 1,288	120 4,426	8,149 131,139	20,987 133,509
59B 60	Aircraft and parts	10,874 22,891	-16,950 -6,875	1,093 34,512	1,050 33,306	43 1,206	716 20		422 20	7,200 61,838	68,327 84,421
61 62	Other transportation equipment	1,278 10,311	-2,937 -9,990	7,160 25,249	6,754 23,710	405 1,540	515 3,249	103 517	1 411	21,311 68,373	24,074 85,858
63 64	Ophthalmic and photographic equipment	2,224 2,831	-5,696 -15,769	1,129 -424	704 123	425 -547	2,604 1,932	1,015 1,184	747	10,937 21,805	18,707 31,083
65A 65B	Railroads and related services; passenger ground transportation	3,377 4,606	-135	810 5,150	2,729	490 2,421	2,653 1,944	2,256 897	397 1,048	21,164 35,056	48,394 115,194
65C 65D	Water transportation	7,512 11,216	3,264 -5,711	834 2,837	697 2,159	137 678	167 2,048	35 956	133 1,093 106	16,169 42,745	24,198 79,060
65E 66	Pipelines, freight forwarders, and related services	1,958 2,496		80 3,853	1,954	38 1,899	146 5,540	40 2,519	106 3,021	4,776 78,241	23,301 160,164
67 68A	Radio and TV broadcasting	134	-986	2,671	1,734	937	11,720	4,541	7,180	1,326 76,857	2,250 156,453
68B 68C	Gas production and distribution (utilities)	161 37	-1,763	579 236	465 184	114 53	1,672 983	685 1,018	987 -35	26,192 16,120	82,180 28,469
69A 69B	Wholesale trade	26,294 85	15,533	5,860 114	5,039 92	821 22	9,454 263	3,940 -41	5,514 304	212,971 385,364	423,751 422,960
70A 70B	Finance	12,598 2,906	-161 -3,078	1,400 1,746		1,400 1,710	9,366 827	666	9,366 161	158,991 84,039	280,950 177,621
71A 71B	Owner-occupied dwellings	10,830		1,243	547	696	6,563	713	5,850	325,144 164,515	325,144 389,620
72A 72B	Hotels and lodging places	49 31		0.47	600	254	836 898	-1,237 301	2,073 597	22,012 49,085	40,064 66,271
73A 73B	Computer and data processing services  Legal, engineering, accounting, and related services	928 2,398	-104 -391	125 4,133 8,099	65 2,833 7,561	1,300 538	5.248	1.402	3.845	11,110	64,687 177,982
73C 73D	Other business and professional services, except medical  Advertising	1,546 475	-740 -253	20,907	15,944	538 4,963	1,656 11,433 597	4,136 416	-73 7,298 181	45,807 1,564	211,758 109,406
74 75	Eating and drinking places Automotive repair and services	271		85 1,139 185	79 371 94	768 92	-3,409 2,223	I -5.546	2,138 1,400	167,639 70,129	211,021 131,228
76 77A	Anusements Health services	1,222	-64	1,001 613	823	92 179 965	-1,452 -32,757	823 189 -10	-1,641 -32,747	48,119 330,888	78,841 338,393
77B 78	Federal Government enterprises  Federal Government enterprises	144	-9	7,326 409	1,127	965 6,199 97	-32,757 -16,252 1,482	-15,934	-32,747 -318 1,354	140,184 8,490	152,270 33,469
79 80	State and local government enterprises Noncomparable imports	***************************************	-78,696	111 10,116	80	31 1,443	1,482 359 49	171	1,354	14,621 39,151	19,04
81 82	Noncomparative imports Scrap, used and secondhand goods General government industry	4,267	-2,068	675 150,627	-104 108,244	778 42,383	2,272 316,158	683	1,589	-39,151 -4,139 466,785	2,32 466,78
83 84	Rest of the world adjustment to final uses Household industry	31,653	***************************************	-517	-161	42,383 -356				7,709	7,709
85	Inventory valuation adjustment				***************************************					-17,817	-17,817
VÅ	Value added	348,572	-490,442	384,927	900 050	00.075	400 204	040 074	070 404	4,572,829	0 475 646
	Ivai notely outure	348,572	490,442	384,927	292,052	92,875	496,592	218,272	278,320		8,175,016

\*Less than \$500,000.

## Table 2.2.—Input Components of Total Industry Output, 1987 Benchmark [Millions of dollars at producers' prices]

Section   Sect				Value	added				
Other growthest products			Total		tax and nontax				
Foreign and Index Promotes	1	Livestock and livestock products	15,074		1,091	10,700			1
Appellers Verley van derher services    1.68	3	Forestry and fishery products			2,536 158				3
Commitment and related gas   1,000   2,000   3,000   3,000   1,000	4	Agricultural, forestry, and fishery services				1 120			4 E.G
Clubb performent and sharing as	7			8.383	2,033	5,072	9,964		7
11-12   Contended   92-000   18-366   4-67   96-55   50-361   11-14	8	Crude petroleum and natural gas	55,484	11,699	3,939	39,847	28,744	84,228	8
Obtained and excellential   1,000	0	Construction					327,813	618,813	11+12
1   Cecury products   1,755		Ordnance and accessories	18,928	12,370	235	6,323	12,510		13 14
1   Stood and names the face, yet much fined mish.		Tobacco products	16,795					26,383	15
Agreed		Broad and narrow fabrics, yarn and thread mills	12,140		235				16
25-22   Limber and word products	18	Apparel	27,003	17.503	239	9,262	37,181	64,184	18
2-22   Further and fundament   1,7209   1,1412   200   5,811   19,511   1		Miscellaneous fabricated textile products	6,915	4,048 16 168			10,072		19 20±21
24.00	22+23	Furniture and fixtures	17,259	11,412	230	5,617	19,518	36,777	22+23
24.00		Paper and allied products, except containers	34,278		1,345				24 25
2727   Industria and other chemicals   3.277   15.565   1565   1577   17.04   15.05	26A	Newspapers and periodicals	29,037	15,391	255	13,392	20,689	49,727	26A
270   Agricultural fertilization and chamicals   3,364   1,500   226   1,361   1,014		Other printing and publishing		27,499					26B
Betack and symboths materials	27B	Agricultural fertilizers and chemicals	3,364	1,950	226	1,188	10,148	13,512	278
20   Parts ánd alled products		Plastics and synthetic materials			766 152				28 29A
42 Cher fabricated metal products	29B	Cleaning and toilet preparations	17,646	5,308	184		15,583	33,229	298
42 Cher fabricated metal products		Paints and allied products	5,568 24,258			3,031 6,812			30 31
42 Cher fabricated metal products	32	Rubber and miscellaneous plastics products	37,624	23,433	1.672	12,519	47,948	85,572	32
42 Cher fabricated metal products		Footwear, leather, and leather products			28 218				33+34 35
42 Cher fabricated metal products	36	Stone and clay products	20,563	11,952	803	7,807	23,169	43,732	36
42 Cher fabricated metal products		Primary iron and steel manufacturing	25,370		1,183				37 38
42 Cher fabricated metal products	39	Metal containers	3,421	2,019	85	1,318	8,483	11,904	39
42 Cher fabricated metal products					492 512				40 41
46   Materials handling machinery and equipment   3,309   2,407   66   835   3,884   7,194   4   4   4   4   4   4   4   4   4	42	Other fabricated metal products	22,269	14,716	501	7,053	22,155	44,424	42
46   Materials handling machinery and equipment   3,309   2,407   66   835   3,884   7,194   4   4   4   4   4   4   4   4   4		Engines and turbines			175				43 44+45
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1	46	Materials handling machinery and equipment	3,309	2,409	66	835	3,884	7,194	46
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1		Metalworking machinery and equipment							47 48
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1	49	General industrial machinery and equipment	12,400	8,544	262	3,595	10,836	23,236	49
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1		Miscellaneous machinery, except electrical			250 440				50 51
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1	52	Service industry machinery	10,422	6,580	151	3,691	11,987	22,409	52
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1		Electrical industrial equipment and apparatus	11,609		243 127				53 54
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1	55	Electric lighting and wiring equipment	9,083	5,249	158	3,675	8,532	17,615	55
59A   Motor vehicles (passenger cars and trucks)   25,004   15,227   2,108   7,669   109,111   134,115   59B   104   104   105   1			20,337 26,895		358 852		20,363 21,758		56 57
Aircraft and parts   39,508   30,002   614   8,892   42,820   82,128   61	58	Miscellaneous electrical machinery and supplies	9,452	6,579	235	2,639	11,371	20,823	58
Aircraft and parts   39,508   30,002   614   8,892   42,820   82,128   61		Motor vehicles (passenger cars and trucks)						134,115   68,991	59A 59B
Scientific and controlling instruments	60	Aircraft and parts	39,508	30,002	614	8,892	42,620	82,128	60
66 Communications, except radio and TV		Other transportation equipment							61 62
66 Communications, except radio and TV	63	Ophthalmic and photographic equipment	11,264	4,276	220	6,768	8,462	19,725	63
66 Communications, except radio and TV		Miscellaneous manufacturing							64 65A
66 Communications, except radio and TV	65B	Motor freight transportation and warehousing	64,722	40,701	3,083	20,938	51,373	116,095	65B
66 Communications, except radio and TV	65C 65D	Water transportation							65C 65D
67 Radio and TV broackasting 13,460 9,886 600 2,975 15,936 29,386 6 684 Electric services (utilities)	65E	Pipelines, freight forwarders, and related services	15,309	7,945	642	6,722	10,599	25,908	65E
68A         Electric services (utilities)         85,706         19,453         9,242         57,012         46,665         13,2371         68           68B         Gas production and distribution (utilities)         26,325         8,626         3,151         14,548         41,224         67,649         68           68C         Wholesale trade         287,947         174,697         57,724         65,525         125,804         423,751         69           69B         Retail trade         293,322         187,889         53,073         52,360         127,371         420,694         69           7DB         Insurance         144,598         109,452         8,317         26,222         11,666         86,422         12,280         70           71A         Owner-occupied dwellings         279,033         50,971         228,062         46,111         325,144         71           71B         Real estate and royalfies         280,436         27,230         53,227         199,979         399,39         30,275         71           71B         Real estate and royalfies         280,436         27,230         53,227         199,979         99,939         300,275         71         72         74         74         74	66 67	Radio and TV broadcasting		9.886	600	2.975			66 67
Wholesale trade   237,947   174,697   57,724   65,525   125,804   423,751   69,968   Retail trade   293,322   187,899   53,073   52,360   127,371   420,694   69,970   70B   180,452   8,317   26,827   142,016   286,613   70,970   71B   180,452   124,29   11,666   86,428   172,850   70,701   71B   Real estate and royalities   279,033   50,971   228,066   86,428   172,850   70,701   71B   Real estate and royalities   280,436   27,230   53,227   199,979   99,839   380,275   71,702   72,703   73,		Electric services (utilities)	85,706	19,453	9,242	57,012	46,665	132,371	68A
Wholesale trade   237,947   174,697   57,724   65,525   125,804   423,751   69,968   Retail trade   293,322   187,899   53,073   52,360   127,371   420,694   69,970   70B   180,452   8,317   26,827   142,016   286,613   70,970   71B   180,452   124,29   11,666   86,428   172,850   70,701   71B   Real estate and royalities   279,033   50,971   228,066   86,428   172,850   70,701   71B   Real estate and royalities   280,436   27,230   53,227   199,979   99,839   380,275   71,702   72,703   73,	68C	Water and sanitary services	3,786		584	-309	7,477		68B 68C
Transition   Tra	69A	Wholesale trade	297,947	174,697	57,724	65,525	125,804	423,751	69A
Tobs	70A	Finance	144,596	109,452	8,317	26,827	142,016	286,613	70A
Title   Real estate and royalities   280,436   27,230   53,227   199,979   99,839   380,275   71,724   Hotels and lodging places   22,211   10,663   3,699   7,850   18,787   40,997   72,734   734   735	70B	Insurance	86,422	62,328	12,429	11,666	86,428	172,850	70B
Tables and logging places   10,683   3,699   7,850   18,787   40,997   72,734   72,734   73,735   73	71B	Real estate and royalties	280,436	27,230	53,227	199,979	99,839	380,275	71B
73A         Computer and data processing services         35,770         25,443         655         9,673         25,051         60,821         73           73B         Legal, engineering, accounting, and related services         104,682         79,014         818         24,855         82,309         220,728         73           73C         Other business and professional services, except medical         138,418         92,121         3,952         42,345         82,309         220,728         73           73D         Advertising         10,942         7,404         126         3,412         4,941         15,884         73           74         Eating and drinking places         108,791         81,909         9,606         17,276         100,603         209,394         73           75         Automotive repair and services         62,395         28,995         4,301         29,099         68,309         130,704         7           76         Amusements         37,552         24,710         2,857         9,986         40,640         78,192         7           777         Health services         218,801         178,143         1,901         38,757         119,710         38,511         77           778         Ed	72A	Hotels and lodging places	22,211	10,663	3,698	7,850	18,787	40,997	72A
73B Legal, engineering, accounting, and related services         104,682         79,014         818         24,850         73,250         177,931         73           73C Other business and professional services, except medical         138,418         92,121         3,952         42,345         82,309         220,728         73           73D Advertising         10,942         7,404         126         3,412         4,941         15,884         73           74 Eating and finking places         108,791         81,909         9,606         17,276         100,603         209,394         7           75 Automotive repair and services         62,395         28,995         4,301         23,999         68,309         30,704         7           76 Amusements         37,552         24,710         2,857         9,986         40,640         78,192         7           77.77 Health services         218,801         178,143         1,901         38,757         119,710         338,551         77           78 Federal Government enterprises         33,760         31,077         2,883         11,636         45,396         7           79 State and local government enterprises         37,50         31,077         2,863         11,636         45,396         7     <	73A	Computer and data processing services	35,770	21,130 25,443	655			60,821	73A
Total	73 <del>B</del>	Legal, engineering, accounting, and related services	104,682	79,014	818	24,850	73,250	177,931	73B
74 To James In the Services In the Serv	73D	Advertising				3,412			73C 73D
Automotive repair and services   52,395   28,995   4,301   29,099   68,309   130,704   77   76   76   76   76   76   77	74	Eating and drinking places	108,791	81,909	9,606	17,276	100,603	209,394	74
77A 77B 77B Federal Government enterprises         218,801 72,590 79         179,143 81,001 81			62,395 37,552			29,099 9,986			75 76
7/35         Educational and social services, and membership organizations         72,590         68,100         418         4,072         80,088         152,678         77           78         Federal Government enterprises         33,760         31,077         2,683         11,636         45,396         7           79         State and local government enterprises         27,750         19,296         26         8,428         41,734         69,484         7           82         General government industry         466,785         466,785         466,785         466,785         8           84         Household industry         7,709         7,709         7,709         7,709         8           85         Inventory valuation adjustment         -17,817         -17,817         -17,817         -17,817         -17,817         -17,817         8           7         Total         4,572,829         2,698,657         364,986         1,509,186         3,602,186         8,175,016	77A	Health services	218,801	178,143	1,901	38,757	119,710	338,511	77 <u>Ă</u>
State and local government enterprises   27,750   19,296   26   8,428   41,734   69,484   7		Educational and social services, and membership organizations	72,590 33,760	68,100 31,077	418	4,072	80,088	152,678	77B 79
82   General government industry   466,785   466,785   8   466,785   8   466,785   8   7,709   7,709   8   7,709   7,709   8   7,709   8   7,709   8   7,709   8   7,709   8   7,709   8   7,709   8   7,709   8   7,709   8   7,709   8   7,709   7,709   8   7,709   7,709   8   7,709   7,709   8   7,709   7,7	79	State and local government enterprises	27,750	19,296	26	8,428	41,734	69,484	79
85   Inventory valuation adjustment		General government industry	466,785	466,785					82 84
T   Total		Inventory valuation adjustment	-17,817		***************************************	-17,817		-17,817	85
	T	TOTAL	4,572,829	2,698,657	364,986	1,509,186	3,602,186	8,175,016	T

<sup>\*</sup> Less than \$500,000.

# Total and Per Capita Personal Income by State and Region

This article was written by Howard L. Friedenberg and Duke D. Tran. The estimates of State personal income, as well as the section on the revisions, were prepared by the Regional Economic Measurement Division.

T HIS ARTICLE presents preliminary fourthquarter and year 1993 estimates of total personal income for States, regions, and the United States and preliminary 1993 estimates of per capita personal income. In addition, the article includes revised annual State estimates for 1988–92 and revised quarterly estimates for 1990:I-1993:III.

The first section of this article looks at the preliminary estimates of total State personal income, and the second section discusses the preliminary estimates of per capita State personal income. The last section contains information about the revised estimates. Tables 1–4, at the end of the article, present the preliminary and revised estimates: Tables 1 and 2 contain the quarterly estimates of total and nonfarm State personal income for 1990–93, and tables 3 and 4 contain the annual estimates of total and per capita State personal income for 1988–93. Table 5 presents percent changes in earnings for selected industries for 1993.

#### **Total Personal Income**

Total personal income in the Nation increased 1.8 percent in the fourth quarter of 1993 after increasing 0.8 percent in the third quarter. The

1. In this article, these percent changes are not at annual rates.

pickup was mainly in farm income, which increased substantially in the fourth quarter after having declined in the third quarter as a result of the floods in the Midwest, lower farm subsidy payments, and the drought in the Southeast.

In the fourth quarter, the five States with the fastest growth in personal income were North Dakota, Iowa, South Dakota, Nebraska, and Minnesota. In these States, personal income rebounded sharply after having declined in the third quarter as a result of the crop damage and uninsured losses to property due to the floods and of lower farm subsidy payments.

In 1993 as a whole, personal income in the Nation increased 4.7 percent after increasing 6.1 percent in 1992. The slowdown mainly reflected the effect on personal income of payments of bonuses in a number of industries in late 1992 that typically would have been paid in early 1993. If the timing of the bonus payments had been typical, personal income in the Nation would have increased 5.5 percent in 1993 and 5.7 percent in 1992.

#### Per Capita Personal Income

Per capita personal income in the Nation increased 3.5 percent in 1993 after increasing 4.9 percent in 1992. The slowdown mainly reflected the effect on personal income of the change in the

#### BEA Estimates of Wages and Salaries for 1993

The annual change from 1992 to 1993 in the national totals of the preliminary State estimates of wages and salaries is the same as the change in the national income and product accounts (NIPA) estimates of wage and salary disbursements that appear in this issue. This year, the national totals for both the NIPA and the State estimates are based primarily on monthly national data on employment, hours, and earnings from the Bureau of Labor Statistics (BLS) establishment survey; in some years, such as last year, the national totals for the preliminary State estimates presented in April have instead been based primarily on BLS tabulations of wages and salaries of employees covered by unemployment insurance for the first three quarters and on a BEA

estimate for the fourth quarter.<sup>1</sup> The unemployment insurance data are used instead of the monthly establishment data when there are significant differences between the two series. In July, both the NIPA and the State estimates for 1993 will be revised to incorporate the unemployment insurance tabulations for all four quarters of 1993.

<sup>1.</sup> The monthly establishment survey covers total employment and the average weekly hours and average hourly earnings of production and nonsupervisory workers. The unemployment insurance tabulations are compiled from reports that are filed quarterly by all employers covered by State unemployment insurance laws and by the unemployment compensation program for Federal employees. (For a more detailed discussion of these two data series and their use by Bea, see "State Estimates of Wages and Salaries: A Methodological Update" in the October 1989 Survey of Current Business.)

timing of bonus payments. If the timing had not changed, per capita income would have increased 4.3 percent in 1993 and 4.5 percent in 1992.

The increases in per capita personal income for the Nation have exceeded the increases in U.S. prices (as measured by the fixed-weighted price index for personal consumption expenditures) for 2 consecutive years. In 1993, prices increased 3.0 percent, and in 1992, they had increased 3.7 percent. By State, increases in per capita income in 1993 exceeded 3.0 percent in all except eight States.

#### Fastest growing States

In 1993, increases in per capita personal income in the 12 fastest growing States ranged from 6.7 percent in Montana to 4.5 percent in Oregon (table A and chart 1). All of these States had above-average growth in personal income, and all except Louisiana and Indiana had average

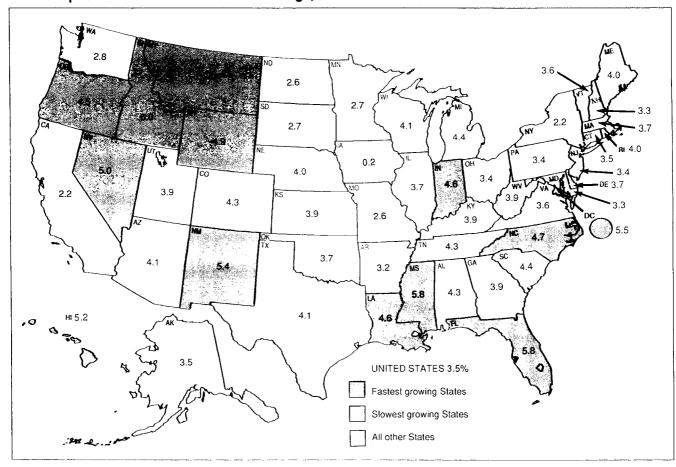
or above-average growth in population. All of these States except Florida, Hawaii, and Nevada had per capita income below the U.S. average of \$20,817 in 1993.

In Montana, Idaho, Mississippi, New Mexico, Nevada, Wyoming, North Carolina, and Oregon, personal income growth was boosted by above-average increases in earnings in nondurables manufacturing, in retail trade, in the finance-insurance-real estate group, and in government (table B).<sup>2</sup>

In addition, most of these States had aboveaverage increases in earnings in the other major nonfarm industries. In Mississippi, large increases in earnings in construction and in services reflected the growth of gaming establishments. In Montana and Idaho, personal income growth was

#### **CHART 1**

#### Per Capita Personal Income: Percent Change, 1992-93



U.S. Department of Commerce, Bureau of Economic Analysis

<sup>2.</sup> Earnings is the sum of wage and salary disbursements, other labor income, and proprietors' income.

boosted substantially by large increases in farm income.

In Florida and Hawaii, personal income growth rebounded from the effects in 1992 of Hurricanes Andrew in Florida and Iniki in Hawaii. Construction earnings rebounded substantially in Florida and moderately in Hawaii.

In Louisiana and Indiana, increases in earnings were above average in trade, in the financeinsurance-real estate group, and in government. In addition, Louisiana had above-average in-

Table A.—Per Capita Personal Income for Selected States and the United States, 1992–93

			Per	cent char	nge	
Rank		Per capita	Per	sonal inco	ome	Popula-
		person- al in- come	Total	Farm	Non- farm	tion
	Fastest growing States:					
1 2 3 4 5 6 7 8 9 10 11 12	Montana Idaho Florida Mississippi New Mexico Hawaii Nevada Wyoming North Carolina Louisiana Indiana Oregon	6.7 6.0 5.8 5.4 5.2 5.0 4.9 4.7 4.6 4.5	9.0 9.3 7.4 6.9 7.7 6.6 9.1 6.1 6.4 5.0 6.6	91.5 40.9 2 3.9 25.4 13.9 79.5 16.8 6.6 -18.0 18.0 31.8	6.3 7.6 7.4 6.9 7.4 6.6 8.9 5.8 6.4 5.2 5.5 6.3	2.1 3.1 1.5 1.1 2.2 1.4 3.9 1.2 1.6 .4 1.0 2.0
	United States	3.5	4.7	-2.5	4.8	1.1
	Slowest growing States:			}		
43 44 45 46 47 48 49 50	Washington Minnesota South Dakota Missouri North Dakota California New York lowa	2.8 2.7 2.6 2.6 2.2 2.2	5.1 3.9 3.7 3.5 2.7 3.3 2.7	31.1 -80.0 -22.0 -61.0 -25.2 13.1 -14.1 -86.2	4.7 5.2 6.7 4.0 5.5 3.2 2.7 4.7	2.2 1.1 1.0 .8 .1 1.0 .5

creases in earnings in nondurables manufacturing and in mining, and Indiana had above-average increases in earnings in durables manufacturing, in construction, and in services.

#### Slowest growing States

In 1993, increases in per capita personal income in the eight slowest growing States ranged from 0.2 percent in Iowa to 2.8 percent in Washington. All of these States except Washington had below-average growth in personal income and average or below-average growth in population. California's population growth was below average for the first time since 1948.

In Iowa, North Dakota, Missouri, South Dakota, and Minnesota, personal income growth was slowed by large declines in farm income as a result of the Midwest floods in the third quarter. The slowdown occurred despite rebounds in the fourth quarter.

In New York, California, and Washington, earnings in durables manufacturing declined, and earnings in construction either increased at below-average rates or declined. The declines in earnings in durables manufacturing in California and Washington, which were larger than those in any of the other States, reflected job cutbacks in the aircraft industry. In addition, California and New York had either declines or increases in earnings in most of the other major nonfarm industries. In New York, a large decline in earnings in the finance-insurance-real estate group reflected the atypical timing of bonus payments in the securities industry.

Table B.—Percent Change in Earnings for Selected States and the United States, 1992-93

Rank		Durables manufac- turing	Nondura- bles man- ufacturing	Construc- tion	Mining	Transpor- tation and public utilities	Whole- sale trade	Retail trade	Finance, insurance, and real estate	Services	Govern- ment
1 2 3 4 5 6 7 8 9 10 11 12	Fastest growing States:  Montana idaho Florida Mississippi New Mexico Hawaii Nevada Wyoming North Carolina Louisiana Indiana Oregon	2.4 10.1 -1.1 4.2 5.4 1.6 0 1 5.2 1 4.9 2.2	5.6 3.8 2 1.9 6.4 -5.1 8.4 6.1 1.9	4.7 12.8 12.5 18.6 20.5 6.9 27.4 7.1 13.7 4.1 8.1	2.1 -2.3 -7 4.8 9.9 2.4 4.5 7.3 7.9 3.8 -5.3 12.4	4.8 6.7 6.2 3.8 4.9 8 8.2 4.3 4.6 2.8 4.3 4.8	7.4 6.3 6.6 6.7 6.5 4.0 2.7 1.0 6.0 4.5 7.3	5.6 11.1 6.4 7.1 9.2 5.3 6.8 5.9 5.8 4.8 5.5 7.1	6.5 8.4 4.3 4.1 8.4 8.7 11.5 12.8 6.0 3.9 4.2 9.7	9.8 9.6 9.5 15.3 9.6 5.2 10.2 7.1 10.0 7.2 7.8 8.7	7.5 6.7 7.7 6.9 5.6 4.1 7.3 4.9 6.8 4.9 6.5
	United States	.7	1.0	7.4	1.4	4.4	4.0	4.6	1.6	7.3	4.7
43 44 45 46 47 48 49 50	Slowest growing States:  Washington Minnesota South Dakota Missouri North Dakota California New York Iowa	-5.8 2.8 11.1 -1.8 7.6 -5.0 -3.3 3.2	3.2 1.5 .7 1.2 4.7 9 -2.6 3.3	2.6 6.2 8.9 7.8 12.7 9 4.1 4.5	-1.0 3.3 -5.7 8.5 5.6 5.5 7.4 3.5	3.9 1.5 5.2 4.3 4.1 2.2 1.6 6.1	5.0 5.5 5.1 2.5 4.2 7 2.9 3.6	5.5 7.4 7.6 3.6 6.5 3.1 1.8 3.9	4.6 6.7 5.6 3.8 5.3 2.0 -5.8 6.0	6.9 7.7 11.8 7.9 6.7 5.3 6.3 6.8	5.8 6.4 7.0 5.0 4.3 2.2 3.4 5.7

#### Revisions to the State Estimates

The State estimates of personal income for 1990–92 have been revised to reflect the routine incorporation of more current State and county source data (see table C). In addition, the annual State estimates for 1981–92 have been revised to reflect the incorporation of new source data that were not available in time to be used in the last comprehensive revision, and the quarterly State estimates for these years have been adjusted to reflect the changes in the annual estimates. The incorporation of the new source data caused changes to the estimates of both farm and nonfarm proprietors' income and of the residence adjustment, which is the net inflow of the earnings of interstate commuters.

The newly available source data were also incorporated into the estimates of personal income for local areas. For a detailed description of the revisions for both States and local areas, see the

#### Availability of the State Estimates

Quarterly State estimates for 1969–93 are available, including tables presenting income by type of payment—for example, wages and salaries—and earnings by Standard Industrial Classification (SIC) division. Annual State estimates of personal income and per capita personal income for 1929–93 are also available. The detailed tables of the State annual series have not yet been updated to reflect the revisions to the estimates for 1981–92; however, much of the information presented in that series, including earnings by SIC two-digit industry, is available in the local area series. For more information, see the "Data Availability" box on page 129.

article "Local Area Personal Income: Estimates for 1990–92 and Revisions to the Estimates for 1981–91" beginning on page 127.

Tables C and 1 through 5 follow.

Table C.—Revisions in Total Personal Income for States and Regions, 1990-93

[Millions of dollars, quarters seasonally adjusted at annual rates]

State and region	1990	1991	1992		199	92	****		1993	
	1000	1001	1002	I	П	III	IV	1	11	111
United States	-1,700	-1,851	-2,244	-1,669	-2,089	-2,479	-2,738	6,572	-5,374	-4,284
New England	-1,387	-1,193	-1,185	-1,007	-1,106	-1,141	-1,486	-1,525	-1,623	1,665
Connecticut	9 65	-14 85	-7 96	-20	66 126	20	-93	-292 150	-76 78	897 198
Maine Massachusetts	-1,161	-909	96 -944	157 –841	-996	100 -932	-1,006	-1,052	-1,257	150
New Hampshire	-628	-621	-643	-560	-618	-651	-742	-672	-725	-406
Rhode Island	340	263	308	236	317	319	360	383	452	661
Vermont	-13	3	5	22	-1	3	-4	-42	-95	165
Mideast	-374 -971	1,712 949	1,188	<b>1,541</b> -952	2,258	1,154	- <b>201</b> -997	<b>−378</b> −940	-297	-112 -1,159
Delaware District of Columbia		-949 586	-983   743	-932 566	-1,001 667	-982 812	927	742	-1,015 769	77
Maryland	486	354	299	339	274	380	205	384	77	-21
New Jersey		-5,576	-6,021	-5,793	-5,872	-5,922	-6,498	-5,822	6,332	-6,652
New York		4,722	4,352	4,014	5,217	4,382	3,796	2,755	4,146	4,252
Pennsylvania	2,186	2,575	2,797	3,367	2,973	2,484	2,365	2,502	2,056	2,697
Great Lakes	-2,282	-2,723	-2,830	-2,509	-2,401	-3,099	-3,312	-7,254	<b>-4,825</b>	-2,721
Illinois	-2,230 -77	2,490 265	-2,793   -283	-2,703 -111	-2,649 -272	-2,876 356	-2,945 -393	-5,133 -564	-3,280 -622	-2,363 -851
Indiana Michigan		-205 -959	-263 -949	-1,074	-838	-929	-953	-1,374	-1,266	-1.06 <sup>4</sup>
Ohio		1,881	2,082	2,318	2,255	1,914	1,841	1,042	1,638	2,118
Wisconsin		-890	-887	-937	-897	-851	-863	-1,226	-1,294	-557
Plains	-1,135	-1,429	-1,474	-1,056	-1,291	-1,684	-1,867	-5,948	-3,767	-5,454
lowa		-902	-878	-867	-875	-926	-845	-3,500	-2,404	-2,808
Kansas		27	-44	-92	-30	-27	-24	37	671	86
Minnesota		48	99	236	227	31	-100	-835	-551	-881
Missouri	11	-486 -24	-493 -70	-294 -10	-454 -77	-501 -125	<i>–</i> 724 <i>–</i> 68	-594 -732	711 614	878 252
Nebraska North Dakota		-24 -133	-125	-10 -94	-117 -117	-1251 -144	-06 -143	-732 -60	-614  -6	-252 -402
South Dakota		42	36	65	35	8	36	-264	-152	-318
Southeast	365	422	500	248	-314	819	1,246	-787	-3,202	-1,654
Alabama		88	137	101	173	113	163	66	343	198
Arkansas		-320	-383	-378	-396	-417	-340	-314	-1,009	-572
Florida		2,592	2,835	2,575 850	2,241	3,220	3,304 966	2,554 676	1,729	2,217 59
GeorgiaKentucky		700 -1,068	840 -1,218	-1,231	760 -1,228	784 -1,178	-1,234	-1,524	705 -1,494	-1,403
Louisiana		124	111	-55	-7	393	115	-104	-280	-602
Mississippi	-60	-79	-108	-148	-74	-90	-121	-118	_316	122
North Carolina		-827	-956	-939	-941	-996	-949	-890	-1,244	-164
South Carolina		20 112	233	73 299	-38 211	97	147 323	171 -89	93 -214	190 100
TennesseeVirginia		-1,315	-1,469	-1.389	-1,417	-1,516	-1,554	-1,609	-1.822	-1,975
West Virginia		393	430	491	403	402	425	396	307	17:
Southwest	1,442	2,098	2,257	1,924	2,219	2,331	2,554	3,844	3,142	2,959
Arizona		337	301	251	298	307	348	214	281	794
New Mexico		-132	-157	-164	-176	-161	-126	-117	-216	-9
Okiahoma		-175 2,067	-217	-265	-272	-219	-111	24	-100	-359
Texas	1,224	2,007	2,330	2,102	2,370	2,403	2,444	3,722	3,176	2,615
Rocky Mountain		221	-3	99	-24	-22	-64	1,472	1,512	46
ColoradoIdaho		48 151	-54 112	103 87	-36 115	-94 101	-188 144	526 478	364 667	69 58
Montana		-37	-53	_46	-85	-26	-55	464	516	160
Utah	-24	_94		-153	-129	-109	-94	-142		-48
Wyoming	144	153	113	107	111	105	130	146	122	136
Far West	1,357	-959	-696	-912	-1,430	-834	390	4,004	3,687	56
Alaska		-166	-187	-195	-185	-201	-167	-183	-159	-34
California		-3,233	-3,220	-3,127	-3,986	-3,391	-2,376	452	-292	-1,69
Hawaii		423 603		344 626	358 643	383 702	525 738	495 762	496 766	21:
Nevada Oregon		414		367	470	437	510	749	802	92 59
Washington		1,000		1,072		1,235	1,159	1,728		86
Census Divisions:										1
New England		-1,193		-1,007	-1,106	-1,141	-1,486	-1,525	-1,623	1,66
Middle Atlantic		1,722	1,128	1,588	2,318	944	-337	-565	-130	29
East North Central		-2,723		-2,509	-2,401	-3,099	-3,312	-7,254	-4,825	-2,72
West North Central		-1,429		-1,056	-1,291	-1,684	-1,867	-5,948	-3,767	-5,45
South Atlantic		1,555 -947		1,614 -980	948 -917	2,109 -1,058	2,475 -869	1,483 -1,666	-400 -1,680	8 -97
West South Central		1,696		1,403	1,695	2,161	2,108	3,328	1,787	1,08
Mountain		1,030	819	813	739	826	896		2,345	2,09
Pacific	763	-1,562		-1,538		-1,536	-347	3,242		-36

#### Table 1.—Total Personal Income, States and Regions

[Millions of dollars, seasonally adjusted at annual rates]

	1990 1991 1992 1993													19	93		Percent	change
State and region	Įr.	117	III r	IV '	ار	11'	W'	IV'	Įr.	117	1117	IV r	l'	II.	ll 1 3	IV <i>P</i>	1993:III- 1993:IV	1992:IV- 1993:IV
United States 1	4,571,269	4,630,734	4,680,939	4,738,738	4,761,845	4,812,922	4,840,899	4,911,121	5,001,184	5,077,402	5,122,205	5,312,702	5,234,736	5,354,604	5,395,210	5,491,299	1.8	3.4
New England Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	287,057 82,250 20,820 132,825 22,319 19,019 9,825	289,375 83,306 21,025 133,603 22,472 19,117 9,853	291,659 84,242 21,112 134,653 22,616 19,180 9,856	291,752 84,734 20,966 134,480 22,555 19,166 9,851	292,486 83,874 21,262 135,189 22,900 19,318 9,943	294,301 84,598 21,244 135,988 23,126 19,322 10,023	294,553 84,376 21,397 135,986 23,282 19,393 10,118	298,215 85,477 21,607 137,679 23,618 19,610 10,225	301,610 86,284 22,001 139,136 23,929 19,808 10,452	305,648 87,864 22,330 140,532 24,152 20,121 10,648	309,081 89,385 22,588 141,523 24,429 20,357 10,799	319,128 92,582 22,906 146,346 25,319 20,929 11,047	311,115 89,461 22,883 142,774 24,619 20,464 10,914	318,979 91,612 23,267 146,716 25,276 20,995 11,113	325,280 93,286 23,603 149,689 25,960 21,383 11,359	328,724 94,139 23,927 151,536 26,138 21,542 11,442	1.1 .9 1.4 1.2 .7 .7	3.0 1.7 4.5 3.5 3.2 2.9 3.6
Mideast	929,692 12,838 14,029 104,095 183,775 394,875 220,080	944,206 13,090 14,573 105,468 186,556 400,956 223,563	955,881 13,382 15,279 106,939 188,648 405,101 226,532	960,957 13,462 15,631 107,439 189,687 406,402 228,336	963,886 13,711 15,656 108,234 189,085 406,790 230,412	975,020 13,673 15,593 109,262 191,132 412,825 232,535	977,639 13,717 15,319 109,497 191,917 413,058 234,130	989,606 13,893 15,397 110,606 194,104 417,980 237,626	1,006,251 13,949 15,867 111,755 198,315 424,568 241,797	1,020,286 14,205 16,151 113,353 201,323 430,058 245,196	1,033,597 14,352 16,491 114,821 204,206 435,585 248,142	1,072,138 14,766 16,822 117,727 212,308 455,203 255,311	1,036,695 14,573 16,768 116,442 206,153 432,357 250,401	1,068,888 15,031 16,944 119,217 212,472 448,817 256,406	1,079,438 15,113 17,158 120,301 214,361 453,070 259,435	1,091,975 15,452 17,244 121,541 216,927 458,062 262,749	1.2 2.2 .5 1.0 1.2 1.1	1.9 4.6 2.5 3.2 2.2 .6 2.9
Great Lakes Illinois Indiana Michigan Ohio Wisconsin	756,918 227,240 92,213 167,022 186,751 83,692	<b>766,622</b> 229,465 92,636 169,239 190,500 84,782	774,135 231,358 93,986 171,375 191,670 85,746	<b>781,966</b> 235,096 94,826 171,597 193,511 86,934	783,428 234,170 95,262 171,817 194,829 87,349	790,451 236,731 95,994 174,139 195,339 88,249	798,054 238,031 96,941 175,682 198,276 89,124	809,610 240,774 98,685 178,367 201,257 90,527	824,641 245,951 101,068 180,046 205,214 92,364	839,120 250,142 102,858 183,900 208,260 93,960	846,395 253,213 104,252 184,155 209,545 95,231	875,621 262,126 107,509 190,957 216,387 98,642	863,688 256,993 107,351 188,425 213,437 97,482	881,855 263,209 109,031 192,893 217,514 99,208	889,384 265,089 110,097 194,368 219,638 100,192	908,582 271,317 112,326 199,708 222,895 102,337	2.2 2.3 2.0 2.7 1.5 2.1	3.8 3.5 4.5 4.6 3.0 3.7
Plains towa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	307,021 47,027 42,922 81,331 87,658 27,799 9,459 10,827	307,732 45,823 43,337 82,180 88,714 27,368 9,516 10,794	306,956 45,537 43,312 82,271 89,546 26,837 8,942 10,512	317,863 47,112 45,480 83,771 91,064 27,875 11,143 11,418	317,139 47,601 44,543 84,029 92,067 28,312 9,456 11,131	321,173 47,570 45,479 84,873 92,820 29,021 9,838 11,572	320,555 47,196 45,122 85,403 93,584 28,645 9,411 11,195	329,304 48,415 47,070 86,951 95,299 28,902 10,858 11,810	336,833 50,803 47,409 89,502 96,743 30,066 10,357 11,954	339,392 50,542 48,342 90,085 97,692 30,099 10,616 12,017	341,194 50,727 48,268 91,531 98,229 29,933 10,498 12,009	356,298 52,826 51,038 95,325 101,215 31,374 11,767 12,752	351,768 52,281 49,932 94,046 100,239 31,452 11,209 12,609	356,820 51,833 51,671 95,202 102,348 31,498 11,550 12,718	346,800 49,108 50,032 93,551 100,648 30,965 10,328 12,168	364,499 52,941 52,231 97,810 104,235 32,897 11,327 13,059	5.1 7.8 4.4 4.6 3.6 6.2 9.7 7.3	2.3 2.3 2.6 3.0 4.9 -3.7 2.4
Southeast Alabama Arkansas Florida <sup>2</sup> Georgia Kentucky Louistana <sup>2</sup> Mississippi North Carolina South Carolina Tennessee Virginia Wesf Virginia	963,653 58,999 32,300 240,335 109,132 53,349 59,113 31,881 106,209 51,644 76,498 119,565 24,626	975,579 60,131 32,325 243,366 110,585 53,940 59,748 32,204 108,085 52,665 77,123 120,580 24,826	988,281 60,595 32,334 246,508 112,529 54,720 60,541 32,473 109,587 53,315 78,366 122,160 25,153	997,618 61,603 32,842 248,209 113,379 55,806 61,510 33,033 109,475 53,794 79,156 123,280 25,531	1,012,758 62,896 33,924 252,243 114,792 55,970 62,902 33,672 110,727 54,542 80,309 124,727 26,055	1,023,089 63,416 34,184 253,922 116,478 56,982 63,640 34,065 112,388 54,808 81,179 125,791 26,238	1,032,560 64,110 34,242 255,016 117,694 58,028 64,318 34,277 114,656 55,220 82,005 126,497 26,498	1,046,586 65,027 35,014 257,158 119,412 59,099 65,472 35,044 115,796 55,952 83,833 127,807 26,971	1,069,513 66,604 36,597 261,365 122,194 60,460 66,842 36,060 118,507 57,000 86,104 130,152 27,627	1,088,481 67,562 37,271 264,855 124,237 61,411 68,004 36,589 120,771 57,821 87,812 132,205 27,944	1,088,119 68,601 37,157 256,888 125,862 62,177 67,894 36,798 122,842 58,615 88,783 134,176 28,326	1,137,196 70,665 38,711 279,946 130,277 64,125 69,927 37,862 126,350 60,202 92,566 137,603 28,961	1,131,363 70,534 39,013 277,008 128,836 63,229 70,224 38,649 126,020 60,161 91,520 137,206 28,964	1,154,972 71,896 38,657 283,608 133,212 64,676 71,143 38,814 128,828 61,447 93,369 139,882 29,440	1,169,388 72,498 38,853 287,921 134,306 65,625 71,869 39,494 130,910 62,128 94,814 141,459 29,511	1,189,918 73,690 40,030 292,665 137,027 66,727 73,137 40,492 133,798 62,845 96,270 143,139 30,095	1.8 1.6 3.0 1.6 2.0 1.7 1.8 2.5 2.2 1.5 1.2 2.0	4.6 4.3 3.4 4.5 5.2 4.1 4.6 6.9 5.9 4.4 4.0 3.9
Southwest	404,847 58,800 21,089 46,507 278,451	411,506 59,454 21,305 47,064 283,683	417,688 60,277 21,734 47,654 288,023	<b>424,008</b> 60,802 22,280 49,093 291,832	429,463 61,796 22,503 48,695 296,469	435,704 62,389 22,794 49,403 301,117	438,307 62,544 22,913 49,318 303,533	446,818 63,442 23,280 50,707 309,389	<b>456,002</b> 64,772 23,844 51,458 315,928	464,806 65,964 24,248 52,264 322,330	470,378 66,900 24,601 52,575 326,302	487,957 69,112 25,116 54,225 339,505	486,248 68,903 25,587 54,056 337,702	<b>496,681</b> 70,835 26,020 54,972 344,854	501,525 72,385 26,632 55,080 347,428	<b>510,223</b> 73,181 27,135 55,884 354,024	1.7 1.1 1.9 1.5 1.9	4.6 5.9 8.0 3.1 4.3
Rocky Mountain Colorado	118,230 60,569 15,140 11,502 23,585 7,434	120,338 61,658 15,415 11,578 24,080 7,607	121,447 62,407 15,370 11,440 24,546 7,685	125,658 64,016 16,004 12,639 25,068 7,930	126,285 64,825 15,837 12,130 25,405 8,089	129,160 66,168 16,315 12,479 25,947 8,251	130,028 66,714 16,349 12,416 26,238 8,311	133,986 68,369 16,973 13,467 26,716 8,461	135,296 69,426 17,124 12,891 27,383 8,471	137,958 70,818 17,542 13,166 27,824 8,608	139,777 71,898 17,721 13,177 28,352 8,629	145,188 74,257 18,596 14,142 29,267 8,926	146,439 74,932 18,798 14,356 29,313 9,041	149,768 76,581 19,414 14,759 29,884 9,130	150,354 77,399 19,280 14,248 30,235 9,192	153,870 78,667 20,088 14,800 30,923 9,391	2.3 1.6 4.2 3.9 2.3 2.2	6.0 5.9 8.0 4.7 5.7 5.2
Far West Alaska California Hawaii <sup>2</sup> Nevada Oregon Washington	803,852 11,244 606,796 22,346 23,844 47,931 91,691	815,376 11,532 614,023 22,995 24,364 48,920 93,542	824,892 11,616 620,174 23,576 25,049 49,421 95,056	838,916 11,807 629,722 24,149 25,472 50,374 97,392	836,400 12,017 625,310 24,258 25,949 50,698 98,168	844,023 12,148 629,828 24,330 26,397 51,391 99,928	849,201 12,294 632,401 24,516 26,791 51,836 101,363	856,997 12,446 636,065 24,846 27,192 52,877 103,571	871,037 12,759 645,210 25,521 27,925 53,703 105,918	883,710 12,891 653,838 25,887 28,375 54,642 108,077	893,665 12,997 661,788 24,336 29,030 55,657 109,856	919,175 13,233 677,430 26,885 30,394 57,141 114,091	907,420 13,500 666,529 27,043 30,560 57,796 111,991	926,641 13,690 680,188 27,459 31,248 58,709 115,348	933,040 13,702 685,513 27,374 31,826 59,131 115,495	943,508 13,862 692,016 27,568 32,641 60,156 117,265	1.1 1.2 .9 .7 2.6 1.7 1.5	2.6 4.7 2.2 2.5 7.4 5.3 2.8
									Census D	ivisions								
New England Middle Atlantic East North Central South Atlantic East South Central South Atlantic East South Central West South Central Mountain Pacific	287,057 798,730 756,918 307,021 782,474 220,728 416,371 221,962 780,009	289,375 811,075 766,622 307,732 793,239 223,398 422,820 225,461 791,012	291,659 820,281 774,135 306,956 804,852 226,154 428,553 228,507 799,843	291,752 824,425 781,966 317,863 810,200 229,598 435,278 234,212 813,444	292,486 826,286 783,428 317,139 820,685 232,847 441,990 236,534 810,451	294,301 836,492 790,451 321,173 828,152 235,641 448,345 240,740 817,626	294,553 839,105 798,054 320,565 834,114 238,420 451,411 242,276 822,410	298,215 849,710 809,610 329,304 842,992 243,003 460,582 247,899 829,805	301,610 864,680 824,641 336,833 858,417 249,228 470,824 251,838 843,112	305,648 876,577 839,120 339,392 871,542 253,374 479,870 256,544 855,335	309,081 887,933 846,395 341,194 872,372 256,359 483,928 260,308 864,635	319,128 922,822 875,621 356,298 912,656 265,218 502,368 269,810 888,781	311,115 888,911 863,688 351,768 905,978 263,932 500,994 876,860	318,979 917,695 881,855 356,820 927,609 268,755 509,626 277,872 895,393	325,280 926,865 889,384 346,800 938,807 272,431 513,231 281,196 901,214	328,724 937,738 908,582 364,499 953,807 277,180 523,075 286,826 910,867	1.1 1.2 2.2 5.1 1.6 1.7 1.9 2.0	3.0 1.6 3.8 2.3 4.5 4.5 4.1 6.3 2.5

r Revised.

P Preliminary.

1. The personal income level shown for the United States is derived as the sum of the State estimates; it differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

<sup>2.</sup> The third quarter 1992 estimates of personal income reflect the losses resulting from damage caused by Hurricane Andrew in Florida and Louisiana and by Hurricane Initi in Hawaii.
3. The third quarter 1993 estimates of personal income reflect the losses resulting from damage caused by floods in Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin and by drought in Georgia, North Carolina, South Carolina, and Virginia.
NOTE.—The quarterly estimates of State personal income were prepared by Marian B. Sacks, James P. Stehle, Isabelle B. Whiston, and James M. Zavrel, under the supervision of Robert L. Brown.

#### Table 2.—Nonfarm Personal Income, States and Regions

[Millions of dollars, seasonally adjusted at annual rates]

<del></del>		19	90			19	91			19	92			19	93		Percent	change
State and region	۱۲	() "	Wr	۱۷٬	l'	IJr.	111.7	۱۷r	Įr.	SIF	ill r	۱۷°	jr.	1) "	∭ r 2	ìV <i>₽</i>	1993:III- 1993:IV	1992:IV- 1993:IV
United States	4,513,093	4,582,157	4,645,216	4,688,369	4,717,370	4,762,695	4,803,437	4,865,346	4,947,979	5,025,609	5,080,725	5,259,114	5,176,936	5,304,190	5,365,738	5,433,995	1.3	3.3
New England Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	286,235 82,011 20,624 132,631 22,276 18,980 9,713	288,611 83,087 20,849 133,418 22,429 19,081 9,746	290,967 84,041 20,951 134,484 22,578 19,149 9,764	291,075 84,542 20,802 134,316 22,516 19,134 9,765	291,722 83,650 21,108 134,973 22,855 19,280 9,856	293,491 84,364 21,081 135,756 23,078 19,282 9,931	293,786 84,159 21,242 135,763 23,237 19,356 10,029	297,475 85,270 21,452 137,460 23,576 19,574 10,143	300,761 86,059 21,842 138,911 23,877 19,768 10,304	304,753 87,631 22,157 140,291 24,099 20,081 10,494	308,250 89,162 22,427 141,300 24,379 20,320 10,662	318,295 92,361 22,735 146,120 25,270 20,892 10,917	310,308 89,228 22,665 142,562 24,584 20,428 10,841	318,225 91,382 23,073 146,508 25,248 20,959 11,055	324,545 93,052 23,419 149,493 25,932 21,346 11,304	327,822 93,837 23,698 151,301 26,107 21,500 11,379	1.0 .8 1.2 1.2 .7 .7	3.0 1.6 4.2 3.5 3.3 2.9 4.2
Delaware District of Columbia Maryland New Jersey New York Pennsylvania	926,970 12,667 14,029 103,665 183,521 393,982 219,107	941,638 12,937 14,573 105,074 186,301 400,120 222,632	953,644 13,246 15,279 106,591 188,435 404,393 225,700	958,790 13,339 15,631 107,110 189,471 405,721 227,518	961,816 13,573 15,656 107,885 188,847 406,073 229,782	972,793 13,519 15,593 108,874 190,872 412,072 231,863	975,629 13,579 15,319 109,146 191,673 412,384 233,529	987,592 13,753 15,397 110,258 193,872 417,307 237,005	1,003,630 13,801 15,867 111,336 198,064 423,766 240,797	1,017,620 14,062 16,151 112,941 201,042 429,263 244,160	1,031,203 14,226 16,491 114,430 203,963 434,871 247,222	1,069,733 14,630 16,822 117,329 212,063 454,481 254,408	1,034,382 14,413 16,768 116,059 205,920 431,637 249,584	1,066,876 14,865 16,944 118,871 212,254 448,217 255,724	1,077,478 14,944 17,158 119,968 214,157 452,492 258,759	1,089,625 15,245 17,244 121,144 216,680 457,352 261,960	1.1 2.0 .5 1.0 1.2 1.1	1.9 4.2 2.5 3.3 2.2 .6 3.0
Great Lakes Illinois Indiana Michigan Ohio Wisconsin	748,661 224,534 90,963 166,024 185,206 81,933	761,041 228,076 91,910 168,495 189,280 83,280	770,724 230,901 93,615 170,828 190,759 84,621	777,211 233,961 94,210 170,901 192,417 85,723	779,730 233,331 94,990 171,095 193,961 86,353	786,420 235,641 95,728 173,364 194,434 87,253	795,780 237,784 96,912 175,116 197,650 88,317	806,838 240,392 98,627 177,721 200,525 89,573	818,577 243,935 100,164 179,246 203,919 91,313	833,845 248,490 102,171 183,092 207,080 93,012	842,066 251,982 103,718 183,521 208,446 94,399	870,634 260,580 106,912 190,233 215,297 97,612	857,990 255,772 106,141 187,078 212,603 96,395	877,344 261,625 108,445 191,849 217,037 98,387	887,089 264,889 109,583 193,366 219,263 99,989	902,216 268,938 111,424 198,177 222,198 101,479	1.7 1.5 1.7 2.5 1.3 1.5	3.6 3.2 4.2 4.2 3.2 4.0
Plains lowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	292,650 43,090 41,389 78,634 86,875 24,507 8,833 9,322	297,528 43,718 42,111 80,172 88,174 24,985 8,914 9,455	301,514 44,518 42,761 81,098 89,209 25,261 9,025 9,643	304,986 45,169 43,028 81,845 90,183 25,811 9,160 9,790	308,267 45,448 43,674 82,583 91,489 25,984 9,134 9,954	311,169 45,897 44,018 83,483 92,280 26,207 9,204 10,080	314,866 46,283 44,638 84,489 93,284 26,609 9,300 10,262	318,932 46,994 45,223 85,516 94,528 26,849 9,411 10,410	324,908 47,755 46,112 87,725 95,920 27,165 9,608 10,622	329,197 48,498 46,846 88,781 96,850 27,686 9,727 10,809	333,395 49,040 47,303 90,458 97,699 28,020 9,898 10,978	343,222 50,482 48,837 93,588 100,175 28,799 10,115 11,226	340,368 50,119 48,225 92,563 99,237 28,609 10,221 11,394	347,279 51,133 49,284 94,341 101,378 29,222 10,356 11,565	349,681 51,172 49,786 95,313 101,769 29,568 10,367 11,705	356,225 52,481 50,343 97,213 103,825 29,894 10,560 11,910	1.9 2.6 1.1 2.0 2.0 1.1 1.9 1.7	3.8 4.0 3.1 3.9 3.6 3.8 4.4 6.1
Southeast Alabama Arkansas Florida  Georgia Kentucky Louislana  Mississippi North Carolina South Carolina Tennessee Virginia West Virginia	950,493 58,048 30,918 237,568 107,719 52,173 58,497 31,284 103,584 51,307 76,024 118,828 24,544	964,239 59,095 31,237 241,251 109,305 59,269 31,753 105,675 52,376 76,707 119,916 24,748	978,915 59,802 31,741 244,117 111,528 53,874 60,285 32,235 107,519 53,108 78,055 121,564 25,088	987,304 60,637 32,072 245,785 112,280 54,810 61,217 32,633 107,505 53,501 78,709 122,689 25,465	999,315 61,548 32,564 249,286 113,305 54,911 62,262 33,050 108,323 54,141 79,835 124,096 25,993	1,008,735 62,118 32,912 250,539 114,788 55,881 63,078 33,445 109,632 54,367 80,714 125,091 26,170	1,020,078 62,881 33,492 251,850 116,153 57,057 63,991 33,926 111,943 54,861 81,617 125,872 26,436	1,034,221 63,876 34,201 254,199 117,854 58,040 65,119 34,550 113,365 55,569 83,353 127,186 26,910	1,054,843 65,419 34,978 258,114 120,516 66,228 35,306 115,922 56,636 85,496 129,498 27,556	1,071,877 66,446 35,600 261,888 122,454 60,182 67,241 35,840 118,176 57,454 87,183 131,549 27,865	1,076,539 67,656 36,041 254,594 124,377 60,970 67,616 36,389 120,398 58,343 88,323 133,571 28,261	1,124,353 69,525 37,502 277,345 128,616 62,830 69,498 37,246 124,093 59,841 91,954 137,005 28,897	1,116,914 69,387 36,943 274,283 127,175 62,155 69,531 37,590 123,350 59,805 91,045 136,715 28,934	1,143,248 70,692 37,599 281,097 131,555 63,642 70,895 38,296 126,459 61,115 93,021 139,449 29,426	1,159,361 71,521 37,953 285,399 132,914 64,692 71,787 39,182 128,611 62,009 94,592 141,192 29,509	1,174,643 72,453 38,359 289,334 135,077 65,474 72,452 39,756 130,603 62,529 95,855 142,669 30,081	1.3 1.3 1.1 1.4 1.6 1.2 9 1.5 1.5 1.3 1.0	4.5 4.2 2.3 4.3 5.0 4.2 4.3 6.7 5.2 4.5 4.1
Southwest Arizona New Mexico Oklahoma Texas	399,359 58,010 20,674 45,612 275,062	406,465 58,729 20,962 46,242 280,532	414,105 59,616 21,415 46,949 286,125	418,054 60,151 21,764 47,595 288,544	<b>424,540</b> 60,997 22,077 47,997 293,469	429,664 61,446 22,288 48,410 297,519	434,496 61,807 22,543 48,856 301,291	441,732 62,733 22,863 49,650 306,486	450,654 64,059 23,342 50,449 312,804	458,737 65,262 23,729 51,210 318,536	466,258 66,283 24,195 51,869 323,911	481,719 68,471 24,627 53,014 335,607	478,319 67,925 25,026 52,933 332,435	489,876 70,045 25,483 53,802 340,546	496,568 71,372 26,085 54,343 344,768	<b>502,076</b> 72,134 26,378 54,636 348,929	1.1 1.1 1.1 .5 1.2	<b>4.2</b> 5.4 7.1 3.1 4.0
Rocky Mountain Colorado Idaho Montana Utah Wyoming	115,486 59,596 14,039 11,227 23,329 7,295	117,630 60,740 14,277 11,303 23,838 7,472	119,667 61,746 14,550 11,465 24,350 7,557	121,762 62,800 14,843 11,595 24,793 7,732	124,047 64,120 15,063 11,786 25,200 7,879	126,018 65,183 15,306 11,883 25,686 7,960	127,935 66,051 15,591 12,160 26,034 8,099	130,260 67,277 15,909 12,382 26,472 8,221	132,961 68,629 16,284 12,649 27,135 8,265	135,349 69,982 16,654 12,814 27,538 8,360	137,713 71,187 16,936 13,025 28,122 8,443	141,380 73,110 17,442 13,218 28,957 8,653	142,686 73,661 17,617 13,542 29,075 8,791	145,491 75,268 18,010 13,710 29,650 8,853	147,425 76,397 18,219 13,783 30,063 8,963	149,492 77,238 18,570 13,930 30,675 9,079	1.4 1.1 1.9 1.1 2.0 1.3	<b>5.7</b> 5.6 6.5 5.4 5.9 4.9
Far West Alaska	793,239 11,239 598,682 22,108 23,730 47,089 90,391	805,006 11,527 606,096 22,745 24,261 48,078 92,300	815,681 11,610 613,149 23,325 24,956 48,701 93,941	829,186 11,798 622,963 23,899 25,374 49,422 95,730	827,934 12,011 619,065 24,030 25,854 49,966 97,009	834,405 12,142 622,904 24,103 26,290 50,519 98,447	840,867 12,288 626,182 24,294 26,698 51,121 100,284	848,295 12,436 630,153 24,630 27,100 51,993 101,983	861,646 12,754 638,346 25,290 27,861 52,919 104,475	874,231 12,885 647,020 25,655 28,301 53,831 106,539	885,300 12,992 655,671 24,193 28,968 54,930 108,546	909,778 13,224 671,000 26,656 30,320 56,229 112,349	895,969 13,496 658,535 26,805 30,430 56,714 109,989	915,854 13,685 672,988 27,221 31,138 57,626 113,197	923,590 13,701 678,991 27,140 31,714 58,213 113,831	931,895 13,858 684,059 27,325 32,501 58,977 115,175	.9 1.1 .7 .7 2.5 1.3 1.2	2.4 4.8 1.9 2.5 7.2 4.9 2.5
									Census Di	ivisions								
New England Middle Atlantic East North Central West North Central South Atlantic East South Central West South Central Mountain Pacific	286,235 796,610 748,661 292,650 773,911 217,529 410,089 217,901 769,509	288,611 809,054 761,041 297,528 785,855 220,463 417,279 221,582 780,745	290,967 818,528 770,724 301,514 798,039 223,965 425,100 225,653 790,726	291,075 822,710 777,211 304,986 803,307 226,790 429,427 229,052 803,812	291,722 824,702 779,730 308,267 812,258 229,345 436,292 232,975 802,080	293,491 834,807 786,420 311,169 818,573 232,158 441,919 236,042 808,115	293,786 837,585 795,780 314,866 825,157 235,481 447,630 236,983 814,169	297,475 848,184 806,838 318,932 834,490 239,819 455,456 242,956 821,195	300,761 862,626 818,577 324,908 849,246 245,394 464,460 248,223 833,785	304,753 874,465 833,845 329,197 862,539 249,652 472,587 252,642 845,929	308,250 886,056 842,066 333,395 864,691 253,338 479,437 257,160 856,332	318,295 920,952 870,634 343,222 904,579 261,556 495,621 264,798 879,458	310,308 887,141 857,990 340,368 897,503 260,177 491,842 266,066 865,539	318,225 916,195 877,344 347,279 919,781 265,652 502,841 272,157 884,716	324,545 925,407 887,089 349,681 931,705 269,988 508,851 276,596 891,876	327,822 935,992 902,216 356,225 943,926 273,538 514,376 280,504 899,395	1.0 1.1 1.7 1.9 1.3 1.3 1.1 1.4	3.0 1.6 3.6 3.8 4.3 4.6 3.8 5.9 2.3

r Revised.

P Preliminary.

NOTE.—Nonfarm personal income is total personal income less farm earnings.

1. The third quarter 1992 estimates of personal income reflect the losses resulting from damage caused by Hurri-

cane Andrew in Florida and Louisiana and by Hurricane Iniki in Hawaii.
2. The third quarter 1993 estimates of nonfarm personal income reflect the losses resulting from damage caused by floods in Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin.

Table 3.—Total and Per Capita Personal Income for States and Regions, 1988–93

				Total							Per ca	pita 3			
Area name			Millions	of Dollars			Percent change 2			Doll	ars			Rank i	n U.S.
<u> </u>	1988″	1989 "	1990′	1991 "	1992′	1993 <i>P</i>	1992-93	1988 r	1989 r	1990 ′	1991 ′	1992 r	1993 <i>P</i>	1988	1993
United States 1	4,061,806	4,366,135	4,655,420	4,831,697	5,128,373	5,368,962	4.7	16,610	17,690	18,667	19,163	20,105	20,817		
New England Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	265,334 75,790 18,486 124,327 20,888 17,261 8,581	281,095 80,601 20,089 130,466 22,065 18,454 9,421	289,961 83,633 20,981 133,890 22,491 19,121 9,846	294,889 84,581 21,378 136,210 23,231 19,411 10,077	308,867 89,029 22,456 141,884 24,457 20,304 10,737	321,025 92,124 23,420 147,679 25,498 21,096 11,207	3.9 3.5 4.3 4.1 4.3 3.9 4.4	20,276 23,160 15,354 20,787 19,292 17,321 15,607	21,325 24,548 16,467 21,688 19,977 18,441 16,891	21,935 25,426 17,041 22,248 20,231 19,035 17,444	22,338 25,705 17,294 22,719 20,973 19,340 17,750	23,406 27,150 18,163 23,676 21,933 20,276 18,792	24,265 28,110 18,895 24,563 22,659 21,096 19,467	1 27 3 6 14 23	1 32 4 9 17 26
Mideast Delaware District of Columbia Maryland New Jersey New York Pennsylvania	834,323 11,371 13,420 91,790 167,602 353,658 196,483	894,080 12,420 14,227 99,769 178,582 377,342 211,739	947,684 13,193 14,878 105,985 187,167 401,833 224,628	976,538 13,748 15,491 109,400 191,559 412,663 233,676	1,033,068 14,318 16,333 114,414 204,038 436,354 247,611	1,069,249 15,042 17,028 119,375 212,478 448,076 257,248	3.5 5.1 4.3 4.3 4.1 2.7 3.9	19,206 17,555 21,284 19,703 21,729 19,709 16,584	20,513 18,867 22,794 21,105 23,114 20,983 17,844	21,682 19,719 24,643 22,088 24,182 22,322 18,884	22,241 20,195 26,069 22,494 24,644 22,866 19,557	23,416 20,724 27,909 23,268 26,091 24,095 20,642	24,099 21,481 29,438 24,044 26,967 24,623 21,351	12 55 2 4 17	15 5 2 3 16
Great Lakes Illinois Indian Michigan Ohio Wisconsin	680,125 201,919 81,901 152,142 169,902 74,260	728,259 217,594 88,227 162,359 180,248 79,831	769,910 230,790 93,415 169,808 190,608 85,288	795,386 237,427 96,720 175,001 197,425 88,812	846,445 252,858 103,922 184,765 209,851 95,049	885,877 264,152 109,701 193,849 218,371 99,805	<b>4.7</b> 4.5 5.6 4.9 4.1 5.0	16,299 17,725 14,911 16,502 15,732 15,397	17,392 19,071 15,972 17,546 16,644 16,438	18,297 20,159 16,815 18,239 17,547 17,399	18,762 20,602 17,251 18,667 18,047 17,954	19,814 21,774 18,366 19,586 19,040 19,038	20,594 22,582 19,203 20,453 19,688 19,811	10 31 20 22 26	10 30 20 24 22
Plains towa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	269,192 39,681 38,778 70,914 79,134 23,908 7,816 8,962	289,663 43,352 40,553 77,405 84,348 25,276 8,877 9,851	309,893 46,375 43,763 82,388 89,245 27,470 9,765 10,888	322,043 47,695 45,553 85,314 93,442 28,720 9,891 11,427	343,429 51,225 48,764 91,611 98,470 30,368 10,809 12,183	354,972 51,541 50,967 95,152 101,867 31,703 11,104 12,638	3.4 .6 4.5 3.9 3.5 4.4 2.7 3.7	15,351 14,332 15,748 16,504 15,570 15,211 11,925 12,835	16,462 15,647 16,399 17,843 16,552 16,050 13,735 14,139	17,519 16,683 17,639 18,784 17,407 17,379 15,320 15,628	18,104 17,096 18,290 19,276 18,121 18,059 15,617 16,286	19,164 18,275 19,387 20,503 18,970 18,974 17,048 17,198	19,662 18,315 20,139 21,063 19,463 19,726 17,488 17,666	34 21 19 24 28 49 41	35 21 18 27 23 39 37
Southeast         Alabama           Arkansas         Florida           Georgia         Kentucky           Louisiana         Mississippi           North Carolina         South Carolina           South Carolina         Tennessee           Virginia         West Virginia	849,116 52,521 28,793 205,127 97,819 46,930 53,911 28,854 93,560 45,018 68,379 106,011 22,193	916,226 56,291 30,702 228,024 104,184 50,586 56,369 30,672 100,010 47,995 73,177 114,864 23,352	981,283 60,332 32,450 244,604 111,406 54,454 60,228 32,398 108,339 52,855 77,786 121,397 25,034	1,028,748 63,863 34,341 254,585 117,094 57,520 64,083 34,265 113,392 55,130 81,831 126,206 26,440	1,095,327 68,358 37,434 265,764 125,642 62,043 68,167 36,827 122,117 58,410 88,816 133,534 28,215	1,161,410 72,154 39,138 285,300 133,345 65,064 71,593 39,362 129,889 61,645 93,993 140,421 29,503	6.0 5.6 4.6 7.4 6.1 4.9 5.0 6.9 6.4 5.5 5.8 5.2 4.6	14,607 13,051 12,289 16,666 15,485 12,751 12,568 11,181 14,435 13,192 14,177 17,558 12,124	15,600 13,967 13,085 18,043 16,250 13,756 13,254 11,915 15,233 13,884 15,074 18,768 12,926	16,501 14,899 13,779 18,785 17,121 14,751 14,279 12,578 16,284 15,101 15,903 19,543 13,964	17,071 15,614 14,485 19,180 17,666 15,483 15,100 13,218 16,802 15,484 16,524 20,071 14,695	17,926 16,522 15,635 19,711 18,549 16,528 15,931 14,082 17,863 16,212 17,674 20,883 15,598	18,753 17,234 16,143 20,857 19,278 17,173 16,667 14,894 18,702 16,923 18,434 21,634 16,209	39 47 16 25 43 44 50 33 38 36 11	41 49 19 29 42 45 50 33 44 34 13
Southwest Arizona New Mexico Oklahoma Texas	360,245 53,251 18,713 42,158 246,122	385,260 56,646 20,134 44,694 263,785	414,512 59,833 21,602 47,580 285,497	437,573 62,543 22,872 49,531 302,627	469,786 66,687 24,452 52,630 326,016	498,669 71,326 26,343 54,998 346,002	6.1 7.0 7.7 4.5 6.1	14,489 15,061 12,554 13,310 14,765	15,359 15,639 13,388 14,187 15,695	16,323 16,262 14,213 15,117 16,747	16,952 16,697 14,781 15,636 17,440	17,861 17,401 15,458 16,420 18,437	18,596 18,121 16,297 17,020 19,189	30 45 37 32	36 46 43 31
Rocky Mountain Colorado Idano Montana Utah Wyoming	104,451 53,966 12,668 10,269 20,915 6,633	113,279 58,202 14,241 11,317 22,520 6,999	121,418 62,163 15,482 11,790 24,320 7,664	129,865 66,519 16,368 12,623 26,076 8,278	28,206	150,108 76,895 19,395 14,541 30,089 9,188	7.6 7.4 9.3 9.0 6.7 6.1	14,500 16,540 12,850 12,832 12,379 14,260	15,659 17,767 14,321 14,152 13,201 15,270	16,639 18,818 15,304 14,743 14,063 16,905	17,456 19,740 15,773 15,632 14,759 18,076	18,293 20,666 16,649 16,227 15,573 18,631	19,160 21,564 17,646 17,322 16,180 19,539	18 40 42 46 35	14 38 40 48 25
Far West Alaska California Hawaii Nevada Oregon Washington	699,019 9,720 532,444 18,924 19,253 41,327 77,352	758,274 10,741 573,255 20,957 22,031 45,452 85,838	820,759 11,550 617,679 23,266 24,682 49,161 94,420	51,701	28,931 55,286	927,652 13,688 681,061 27,361 31,569 58,948 115,025	6.6	18,134 17,931 18,703 17,522 17,907 15,074 16,669	19,180 19,631 19,620 19,146 19,370 16,287 18,085	20,242 20,887 20,656 20,905 20,248 17,201 19,268	20,483 21,498 20,748 21,576 20,639 17,714 20,087	21,190 22,067 21,348 22,200 21,648 18,605 21,289	21,747 22,846 21,821 23,354 22,729 19,443 21,887	8 7 13 9 29 15	8 28
							Ce	ensus Division	ns	· <del></del>					
New England	269,192 686,308	289,663 744,846 210,725 395,550 212,091	813,628 769,910 309,893 797,691 224,970 425,755 227,536	795,386 322,043 831,486 237,478 450,582 241,862	888,003 846,445 343,429 878,746 256,045 484,247 259,625		3.4 4.7 3.4 6.0 5.7 5.7 7.6	20,276 19,137 16,299 15,351 16,215 13,018 14,016 14,706 18,140	14,895 15,713	21,935 21,618 18,297 17,519 18,230 14,793 15,905 16,590 20,242	22,338 22,185 18,762 18,104 18,712 15,471 16,606 17,250 20,478	19,814 19,164 19,488 16,485 17,570 18,055	20,594 19,662 20,367 17,215 18,287 18,906		

r Revised.

P Preliminary.

1. The personal income level shown for the United States is derived as the sum of the State estimates; it differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad tem-

porarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

2. Percent change was calculated from unrounded data.

3. Per capita personal income was computed using midyear population estimates of the Bureau of the Census Estimates for 1990–93 reflect State population estimates available as of February 1994.

Table 4.—Total and Per Capita Disposable Personal Income for States and Regions, 1988-93

				Total							Per ca	ipita <sup>2</sup>	*		
Area name			Millions	of Dollars			Percent change 1			Doil	ars			Rank i	n U.S.
	1988 7	1989 ′	1990′	1991 ′	1992′	1993 <i>p</i>	1992-93	1988 r	1989 *	1990 °	1991 *	1992 r	1993 <i>P</i>	1988	1993
United States	3,535,222	3,774,071	4,033,622	4,212,193	4,484,138	4,687,969	4.5	14,457	15,291	16,173	16,706	17,580	18,177		<i></i>
New England Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	228,223 64,491 16,254 106,361 18,643 14,952 7,521	241,080 68,494 17,678 111,294 19,659 15,751 8,204	248,890 71,062 18,546 113,899 20,144 16,645 8,594	254,494 72,320 19,088 116,471 20,835 16,932 8,848	265,943 75,393 20,098 121,365 21,919 17,729 9,439	276,068 77,920 20,944 126,168 22,819 18,384 9,830	3.8 3.4 4.2 4.0 4.1 3.7 4.2	17,440 19,707 13,500 17,784 17,219 15,004 13,678	18,289 20,860 14,490 18,501 17,799 15,741 14,711	18,828 21,604 15,064 18,926 18,120 16,570 15,225	19,278 21,979 15,442 19,427 18,810 16,870 15,584	20,153 22,992 16,256 20,252 19,656 17,706 16,521	20,867 23,776 16,898 20,985 20,278 18,384 17,076	27 3 4 13 24	1 29 3 7 17 28
Mideast Delaware District of Columbia Maryland New Jersey New York Pennsylvania	709,892 9,460 11,268 78,078 143,517 296,749 170,819	756,872 10,298 11,906 83,823 153,535 313,206 184,104	806,967 11,069 12,263 89,726 161,396 337,229 195,284	837,899 11,703 12,920 92,664 165,718 350,419 204,475	887,968 12,217 13,689 97,734 176,849 371,430 216,049	918,816 12,867 14,227 102,041 184,012 381,186 224,484	3.5 5.3 3.9 4.4 4.1 2.6 3.9	16,341 14,605 17,871 16,760 18,606 16,538 14,418	17,365 15,643 19,075 17,732 19,872 17,417 15,515	18,463 16,545 20,312 18,700 20,852 18,733 16,417	19,083 17,190 21,743 19,053 21,319 19,417 17,113	20,127 17,682 23,391 19,876 22,614 20,510 18,011	20,709 18,374 24,595 20,552 23,354 20,948 18,632	15 5 2 6 18	18 5 2 4 14
Great Lakes Illinois Indiana Michigan Ohio Wisconsin	593,024 175,009 71,966 132,438 148,972 64,639	629,888 187,719 76,887 139,905 156,510 68,866	667,483 199,341 81,308 147,448 165,624 73,762	692,397 206,125 84,616 152,737 172,106 76,814	740,115 220,325 91,256 161,837 184,038 82,659	772,637 229,825 96,113 169,518 190,551 86,630	4.4 4.3 5.3 4.7 3.5 4.8	14,212 15,363 13,102 14,365 13,794 13,402	15,043 16,452 13,919 15,119 14,453 14,180	15,863 17,412 14,636 15,837 15,247 15,047	16,333 17,886 15,092 16,292 15,732 15,529	17,325 18,972 16,128 17,155 16,698 16,556	17,961 19,648 16,824 17,886 17,180 17,196	10 32 19 22 28	10 31 20 25 24
Plains lowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	235,716 34,826 33,990 60,875 69,564 21,281 6,995 8,185	251,241 37,583 34,920 66,033 73,393 22,487 7,884 8,941	269,410 40,351 37,855 70,134 78,166 24,247 8,819 9,837	280,868 41,275 39,788 72,641 82,527 25,365 8,881 10,391	300,373 44,510 42,809 78,267 87,074 26,863 9,766 11,085	309,122 44,411 44,629 80,894 89,803 27,990 9,961 11,433	2.9 2 4.3 3.4 3.1 4.2 2.0 3.1	13,442 12,578 13,804 14,168 13,687 13,540 10,672 11,721	14,279 13,565 14,121 15,222 14,403 14,278 12,198 12,834	15,231 14,516 15,258 15,990 15,246 15,340 13,837 14,120	15,790 14,794 15,976 16,413 16,004 15,950 14,023 14,809	16,762 15,880 17,019 17,516 16,775 16,784 15,403 15,648	17,122 15,782 17,635 17,907 17,158 17,416 15,688 15,981	36 21 20 23 26 49 39	38 21 19 26 23 39 35
Southeast Alabama Arkansas Florida Georgia Kentucky Louisiana Mississippi North Carolina South Carolina Tennessee Virginia West Virginia	749,616 46,931 25,717 179,594 85,735 41,327 48,852 26,475 81,858 40,040 61,866 91,031 20,190	804,746 49,870 27,362 200,008 90,561 44,215 50,815 27,902 87,117 42,084 65,749 98,168 20,895	864,179 53,564 28,816 215,305 96,897 47,621 53,686 29,597 94,761 46,645 70,020 104,895 22,372	910,586 56,677 30,617 226,123 102,747 50,254 57,222 31,418 99,469 48,978 74,190 109,201 23,690	971,933 60,891 33,473 236,372 110,377 54,309 61,226 33,837 107,389 52,124 80,628 115,898 25,409	1,028,593 64,193 34,971 253,237 116,701 56,871 64,204 36,025 114,049 54,900 85,175 121,780 26,487	5.8 5.4 4.5 7.1 5.7 4.9 6.5 6.2 5.3 5.6 5.1 4.2	12,896 11,662 10,976 14,591 13,572 11,229 11,389 10,259 12,629 11,733 12,827 15,077 11,030	13,702 12,374 11,662 15,826 14,126 12,024 11,948 10,839 13,269 12,174 13,544 16,040 11,566	14,532 13,227 12,236 16,535 14,891 12,728 11,491 14,243 13,327 14,315 16,886 12,479	15,110 13,857 12,914 17,036 15,502 13,528 13,483 12,120 14,739 13,756 14,981 17,366 13,167	15,906 14,717 13,981 17,532 16,296 14,468 14,309 12,939 15,709 14,467 16,045 18,125 14,047	16,608 15,332 14,424 18,513 16,871 15,010 14,947 13,631 16,421 15,071 16,705 18,762 14,552	40 48 16 25 44 43 50 35 38 31 46	40 48 16 30 44 45 50 34 42 33 13 47
Southwest	319,949 46,885 16,595 37,582 218,888	341,586 49,623 18,019 39,537 234,406	365,875 52,753 19,238 41,832 252,052	388,137 54,855 20,463 43,615 269,204	418,382 58,683 21,921 46,592 291,186	443,546 62,666 23,580 48,666 308,635	6.0 6.8 7.6 4.5 6.0	12,868 13,261 11,133 11,865 13,131	13,618 13,700 11,982 12,550 13,947	14,408 14,338 12,658 13,291 14,785	15,037 14,645 13,224 13,768 15,514	15,907 15,312 13,858 14,536 16,467	16,541 15,921 14,587 15,060 17,116	29 45 37 31	37 46 43 27
Rocky Mountain Colorado Idaho Montana Utah Wyoming	92,747 47,560 11,457 9,126 18,625 5,979	99,271 50,573 12,804 9,858 19,836 6,200	105,753 53,617 13,998 10,263 21,024 6,852	113,357 57,394 14,801 11,047 22,692 7,422	121,916 61,875 16,048 11,663 24,557 7,772	131,069 66,425 17,557 12,699 26,157 8,231	7.5 7.4 9.4 8.9 6.5 5.9	12,875 14,577 11,622 11,403 11,023 12,854	13,723 15,438 12,876 12,329 11,628 13,526	14,492 16,231 13,836 12,834 12,158 15,114	15,237 17,032 14,262 13,681 12,844 16,208	15,981 17,859 15,056 14,183 13,558 16,724	16,730 18,628 15,974 15,128 14,066 17,504	17 41 42 47 33	15 36 41 49 22
Far West Alaska California Hawaii Nevada Oregon Washington	606,054 8,780 459,231 16,239 16,701 36,064 69,039	649,387 9,467 488,570 17,600 19,111 38,932 75,707	705,064 10,149 528,976 19,691 21,434 42,044 82,770	734,456 10,836 546,875 20,847 23,132 44,448 88,318	777,507 11,545 574,751 21,934 25,254 47,556 96,467	808,120 12,166 592,902 23,476 27,474 50,726 101,376	3.9 5.4 3.2 7.0 8.8 6.7 5.1	15,722 16,198 16,131 15,036 15,533 13,154 14,877	16,426 17,303 16,721 16,079 16,802 13,951 15,951	17,389 18,354 17,690 17,693 17,584 14,711 16,890	17,769 19,054 17,985 18,368 17,960 15,229 17,607	18,473 19,642 18,603 18,978 18,897 16,004 18,758	18,944 20,306 18,997 20,038 19,781 16,731 19,290	7 8 12 9 30 14	6 12 8 9 32 11
							Cer	nsus Divisions	5		· ·		'		
New England Middle Atlantic East North Central West North Central South Atlantic East South Central West South Central Mountain Pacific	228,223 611,085 593,024 235,716 597,254 176,599 331,039 172,928 589,353	241,080 650,845 629,888 251,241 644,859 187,736 352,121 186,024 630,277	248,890 693,909 667,483 269,410 693,933 200,802 376,386 199,179 683,630	254,494 720,612 692,397 280,868 727,494 212,540 400,658 211,807 711,324	265,943 764,328 740,115 300,373 771,209 229,665 432,477 227,774 752,253	276,066 789,681 772,637 309,122 816,289 242,264 456,476 244,789 780,646	3.8 3.3 4.4 2.9 5.8 5.5 7.5 3.8	17,440 16,294 14,212 13,442 14,111 11,688 12,506 12,997 15,728	18,289 17,321 15,043 14,279 14,994 12,403 13,259 13,782 16,415	18,828 18,437 15,863 15,231 15,859 13,204 14,061 14,522 17,383	19,278 19,080 16,333 15,790 16,372 13,847 14,766 15,107 17,763	20,153 20,154 17,325 16,762 17,103 14,787 15,692 15,840 18,459	20,867 20,713 17,961 17,122 17,847 15,414 16,313 16,567 18,916		

Per capita disposable personal income was computed using midyear population estimates of the Bureau of the Census. Estimates for 1990-93 reflect State population estimates available as of February 1994.

<sup>Revised.
Preliminary.
1. Percent change was calculated from unrounded data.</sup> 

Table 5.—Percent Change in Earnings for Selected Industries, 1992–93 <sup>1</sup>

		<u>-</u>			2.0			Earnings <sup>2</sup>						
Area name	Total personal				Construc-	Manufac-	Transpor- tation.	Wholesale	Finance, insurance,				Government	
	income	Total	Nonfarm	Mining	tion	turing	public utilities	and retail trade	and real estate	Services	Other	Federal, civilian	Military	State and local
United States	4.7	4.4	4.5	1.4	7.4	.8	4.4	4.4	1.6	7.3	5.6	4.1	.2	5.4
New England	3.9 3.5	3.9 2.5	3.9	6.2	11.4	-1. <b>6</b> -2.4	4.3	3.0	.4 -1.4	7. <b>6</b> 6.9	2.7 8.8	2.6 1.9	-2.2	<b>5.8</b> 5.4
Maine	4.3	4.1	2.4 3.8	.3 21.9	6.9 5.7	.1	6.6 3.7	.3 5.2	4.9	8.1	1.9	-3.0	-2.2 1.7	.9
Massachusetts New Hampshire	4.1 4.3	4.6 4.4	4.6 4.5	7.6 5.9	16.9 10.8	-1.5 -2.6	3.0 2.8	3.1 7.5	1.5 -1.8	7.9 7. <b>7</b>	3 5.8	3.6 5.9	-5.4 4	6.8 8.5
Rhode Island	3.9 4.4	4.2 4.1	4.2 5.2	4.7 17.4	6.5 9.4	.6 .5	6.6 6.0	3.1 5.6	1.6 3.0	7.3 9.2	2.1 2.8	5.3 2.3	3 -1.3	5.3 3.6
Mideast	3.5	2.9	3.0	-2.1	5.0	-1.2	4.2	2.8	-3.2	6.4	11.4	5.2	.7	
Delaware	5.1	4.6 5.1	4.3 5.1	8	8.8	.3	3.4	4.2 -2.8	7.4 -3.1	5.5 5.3	8.0 62.9	6.9 7.7	2.2	3.8 7.7
District of Columbia  Maryland	4.3 4.3	3.8	3.8	3.3 3.5	-4.7 4.0	1.1 7	0 3.5	1.7	3.0	6.9	9.7	4.9	2.6 2.0	.3 2.3
New Jersey	4.1	3.8 4.2 1.6	3.8 4.2 1.7	3.5 6.2	8.3	-1.6	9.1	3.4	.9	6.6	7.6	3.1	-3.1 3.8	5.8
New York Pennsylvania	2.7 3.9	3.5	3.6	7.4 -5.5	4.1 4.6	-3.0 .8	1.6 4.7	2.3 3.6	-5.8 .6	6.3 6.4	6.0 4.1	2.9 4.3	-6.2	2.3 5.8 3.5 3.5
Great Lakes	4.7	4.7	4.8 4.3 5.4 5.3	-3.7	7.9	3.1	4.6	4.3	2.8	6.9	5.3	3.7	-2.1	5.4
IllinoisIndiana	4.5 5.6	4.2 5.5	5.4	-11.3 -5.3	5.2 8.1	1.7 3.8	5.5 4.3 3.8 3.3 5.6	4.3 3.2 6.2 4.5 4.2 5.7	1.2 4.2 2.5 4.2 5.5	6.8 7.8	5.1 4.7	2.1 6.5	-2.7 1.2	8.0 4.8
Michigan	4.9 4.1	5.5 5.7 3.7	5.3	6.4	9.6	6.0	3.8	4.5	2.5	7.0	6.2 3.1	4.0 3.0	-7.3	2.4
Ohio	5.0	5.2	4.2 5.6	.7 8.4	10.6 7.0	6.0 1.5 2.6	5.6	5.7	5.5	6.0 8.2	8.6	6.9	7 1.6	5.3 6.6
Plains	3.4	3.0	4.9	3.6	7.2	1.6	3.6	4.6	5.1	7.6	5.1	5.1	-1.9	6.2
lowa Kansas	.6 4.5	8 4.2	5.0 4.2	3.5 .4	4.5 5.7	3.2 .9 2.3	6.1 2.7	3.8 4.1	6.0 3.4	6.8 7.0	7.8	6.3 4.7	4 9	5.8 6.1
Minnesota	3.9	3.6	l 5.4	3.3	6.2	2.3	1.5 4.3	6.5	6.7	7.7	5.5	5.5	-1.5 -2.9	6.7
Missouri Nebraska	3.5 4.4	3.5 4.3	4.3 5.2	8.5 7.8	7.8 13.7	5 2.4	3.9	3.1 4.2	3.8 4.3	7.9 6.9	2.8 7.8 5.5 4.5 5.5 6.9	5.5 4.3 6.5	-10.0	6.0 6.5
North Dakota	2.7 3.7	1.9 3.5	5.8 7.8	5.6 -5.7	12.7 8.9	6.3 7.2	4.1 5.2	5.5 6.7	5.3 5.6	6.7 11.8	6.9 4.1	4.1 6.7	4.4 3.5	4.4 7.8
Southeast	6.0	<b>5.9</b> 5.3	6.1	-1.6	10.9	2.3	5.2	6.2	5.1	9.0	7.2	3.8	.1	7.5
AlabamaArkansas	5.6 4.6	5.3 4.0	5.3 4.2	3.0 3.6	5.2 3.6	2.3 2.3 3.1	6.1 2.4	7.0 4.9	4.0 6.5	7.9 5.8	8.1 8.5	1.5 1.7	3.3 -13.7	6.4 5.4
Florida	7.4	7.0	7.1	7	12.5	1 –6	6.2	6.4	4.3	9.5	8.5	4.7	-2.6	10.1 7.1
Georgia Kentucky	6.1 4.9	6.7 4.6	6.8 5.1	6.7 -2.4	11.6 9.9	2.8 3.6	6.4 5.1	7.2 5.6	2.9 9.9	10.6 7.4	8.5 8.6 2.9 6.5 5.7	3.5 2.6	2.0	3.4
Louisiana	5.0	4.4	4.6	3.8	4.1	1.1	2.8	4.7	3.9	7.2	6.5	2.6 3.8	-11.0	7.9
MississippiNorth Carolina	6.9 6.4	7.7 6.5	7.8 6.5	4.8 7.9	18.6 13.7	3.3 3.3	3.8 4.6	7.0 5.8	4.1 6.0	15.3 10.0	5.8	3.6 6.8	12.0 1.7	7.0 8.1
South Carolina	5.5 5.8	5.4	5.6	11.6	9.6	3.6	4.8	8.3	4.6	8.8	6.4	.1	-6.1	5.3 8.6
TennesseeVirginia	5.8	6.0 5.1	6.4 5.4	5.0 -2.2	12.9 10.7	3.1 1	6.6 4.1	6.2 4.5	6.1 7.8	8.0 8.2	6.4 5.9	3.0 4.2 7.3	-2.0 3.4	6.4
West Virginia	4.6	3.9	4.2	-13.8	16.8	1.1	3.7	4.6	4.7	9.5	4.9	7.3	6	6.2
Southwest	<b>6.1</b> 7.0	6.2 7.5	5.8 7.0	2.8 0	8.0 14.4	2.6 3.9	<b>5.2</b> 6.3	<b>6.2</b> 7.5	4.5 6.8	8.1 9.1	<b>5.7</b> 5.8	4.0 4.3	3.2 6	<b>6.5</b> 4.8
New Mexico	7.7	7.5 8.7	8.3	9.9	20.5	5.7	4.9 3.7	8.4	8.4	9.6	10.9	5.7	2.2	6.1
Oklahoma Texas	4.5 6.1	4.2 6.0	4.1 5.7	2.9	9.2 5.9	2.7 2.3	3.7 5.3	3.0 6.2	3.0	7.6 7.9	6.3 5.3	4.6	3.6	3.0 7.4
Rocky Mountain	7.6	8.5	7.6	4.1	17.3	3.0	6.7	7.9	10.6	9.4	9.6	3.8	3.3	5.9
Colorado	7.4 9.3	8.3 10.8	7.7	3.4	22.1 12.8	1.0	6.5 6.7	8.3 9.5	10.9	9.3	11.0	5.7 6.3	3.2 8.3	5.1 6.6
Idaho Montana	9.0	10.8	8.5 6.8	-2.3 2.1	4.7	7.8 3.5	4.8	6.2	8.4 6.5	9.6 9.8	9.0 7.1	3.6	8.4	8.9
Utah Wyoming	6.7 6.1	7.2 6.4	7.5 6.0	2.3 7.3	17.5 7.1	3.6 3.3	8.9 4.3	7.6 4.6	11.5 12.8	9.7 7.1	11.5 4.2	8 8.0	-2.9 4.0	6.4 4.3
Far West	4.0	3.0	2.8	4.1	2.3	-3.3	2.7	2.7	3.2	5.9	2.5	3.1	4	3.8
Alaska	5.5 3.3	5.5 2.1	5.5 1.9	5.5	23.3	-6.2 -3.7	4.5 2.2	6.4 1.6	10.4 2.0	<b>5.9</b> 7.3 5.3	3.8 3.7	8.1 2.8	2.3 -1.7	4.0 2.6 6.7
Hawaii	6.6	4.4	4.3	2.4 4.5	6.9	-3.3	8	5.0	8.7	5.2	<b> </b> 2	2.8	1.3	6.7
Nevada Oregon	9.1 6.6	10.1 7.0	9.8 6.5	12.4	27.4 11.0	2.8	8.2 4.8	5.5 6.6	11.5 9.7	10.2 8.7	6.6 7.2	8.2 3.2	-1.8 .6	8.2 7.5
Washington	5.1	7.0 4.2	6.5 3.7	-1.0	2.6	2.1 -3.7	4.8 3.9	5.3	4.6	6.9	-4.2	3.2 2.6	3.1	7.5 7.2
							Census	Divisions						
New England	3.9	3.9 2.7	3.9	6.2	11.4	-1.6	4.3	3.0	.4	7.6	2.7	2.6	-2.2	5.8
Middle Atlantic East North Central	3.4	2.7 4.7	3.9 2.8 4.8	6.2 -2.3 -3.7 3.6	5.2 7.9	-1.3 3.1	4.4 4.6	3.0 4.3	-3.8 2.8	6.4 6.9	5.7 5.3	3.4 3.7	7 -2.1	4.0
West North Central	3.4	3.0	4.9 6.0	3.6	7.2	1.6	3.6	4.6	5.1	7.6	5.1	5.1	-1.9	6.2
South Atlantic	6.0	5.9 5.7	6.0 6.0	-6.6 0 2.7	10.7 10.8	1.6 3.0	5.0 5.7	5.6 6.4	4.4 6.1	8.8 8.7	11.5 5.9	5.4 2.5	.8 2.4	7.1
West South Central	5.7	5.5	5.3 7.8	2.7	5.7	2.3	4.6	5.6	4.0	7.6	5.8	2.5 3.6	.6	6.8
MountainPacific	7.6 3.8	8.5 2.8	7.8 2.6	4.4	18.4	3.4 -3.3	6.6 2.5	7.6 2.6	9.4	9.5 5.7	8.3 2.4	4.5 3.0	1.9	5.8 4.0 5.4 6.2 7.1 6.5 6.8 5.9 3.7
	1 3.0		1 2.0		<u> </u>		1 2.5	10	3.0	J 3.,	L 4.*	I		J 3.1

Percent change was calculated from unrounded data.
 Consists of wage and salary disbursements, other labor income, and proprietors' income.

### Local Area Personal Income

- Estimates for 1990–92
- Revisions to the Estimates for 1981–91

This article presents new estimates of personal income and per capita personal income for local areas—that is, for counties and metropolitan areas—for 1992 and revised estimates for 1990–91. It also discusses the sources of the revisions to the local area estimates for 1981–91, and it describes the changes in the definitions of the county-based metropolitan areas that were issued by the Office of Management and Budget in June 1993.

Table 1 presents estimates for the metropolitan areas. Table 2 presents estimates for counties and county equivalents. For Virginia, estimates are presented for the larger independent cities as well as for most counties; estimates for the smaller independent cities are combined with estimates for adjacent counties.

#### Incorporation of new source data

The local area estimates for 1981–91 have been revised to incorporate new source data that were not available in time to be used in the comprehensive revision to the estimates that was released in May 1993. These data are available either irregularly or less frequently than biennially and cannot be incorporated into the estimates without revising more than the 2 years of estimates that are normally revised each year. In addition, the 1990–91 estimates reflect the routine incorporation of the revisions to the State estimates that were released in October 1993 and of more current State and county source data.<sup>2</sup>

The introduction of the source data changed both the State and the local area estimates of personal income. The changes to the estimates for 1981–89 resulted from revisions to nonfarm proprietors' income, to some components of farm proprietors' income, and to the estimates of the residence adjustment.

Nonfarm proprietors' income.—The State and local area estimates of nonfarm proprietors' income for 1984-92 now reflect the incorporation of tabulations of data from the 1987-89 Federal income tax returns of sole proprietors and partnerships; previously, the most current of these data available to BEA were for 1983. The estimates for 1987-89 are based directly on the data for those years, and the estimates for 1984-86 are based on interpolations between the data for 1983 and 1987. The 1990 estimates are extrapolations of the 1989 estimates for each Standard Industrial Classification two-digit industry by the change in the number of small firms reported in the Census Bureau's County Business Patterns. In the absence of pertinent county data after 1990, the 1991-92 State estimates are allocated to counties in proportion to the 1990 estimates.

Farm proprietors' income.—The local area estimates of farm proprietors' income for 1983-92 now reflect the full use of data from the 1987 Census of Agriculture; previously, the estimates of important categories of both gross receipts and production expenses were based on data from the 1982 census. The 1987 county estimates of gross receipts from "other" farm-related activities (that is, other than crop and livestock production) and of a miscellaneous category of production expenses that includes interest and property taxes are based on the 1987 census data, and the 1983-86 estimates are based on interpolations between the 1982 and 1987 census data. In the absence of pertinent county data after 1987, the 1988-92 State estimates of these categories are allocated to counties in proportion to the 1987 estimates.

For 1982–92, both the State and the local area estimates of farm proprietors' income now reflect new State estimates of selected farm production expenses prepared by the Department of Agriculture.

Adjustment for residence.—The State and local area estimates of this adjustment—the net inflow of the earnings of interstate or intercounty

<sup>1.</sup> See Wallace K. Bailey, "Comprehensive Revision of Local Area Personal Income Estimates, 1969–90," SURVEY OF CURRENT BUSINESS 73 (May 1993): 63–87.

<sup>2.</sup> The State estimates are presented in "State Personal Income, Revised Estimates for 1990-92," SURVEY 73 (September 1993): 70-85.

commuters—for 1981–92 now reflect the incorporation of journey-to-work data from the 1990 Census of Population; previously, the most current journey-to-work data used for the estimates were those from the 1980 Census. The estimates for 1990 reflect the incorporation of the journey-to-work data from the 1990 census, and the estimates for 1981–89 reflect interpolations between the data from the 1980 and 1990 censuses. The 1990 estimates are extrapolated to 1991–92 by (1) the BEA estimates of wages and salaries by place of work, (2) Internal Revenue Service tabulations of wages and salaries by place of residence, which are only available through 1991, and (3) Census Bureau population estimates.

#### Changes in the definitions of metropolitan areas

The metropolitan area definitions used by BEA for its personal income estimates are the county-based definitions issued by the Office of Management and Budget for Federal statistical purposes. These areas consist of 58 primary metropolitan statistical areas (PMSA'S), 240 metropolitan statistical areas (MSA'S), and 12 New England county

metropolitan areas (NECMA's).<sup>3</sup> The PMSA's and one NECMA are grouped into 17 consolidated metropolitan statistical areas (CMSA's).

The estimates presented here reflect the changes in the metropolitan area definitions issued in June 1993. The following changes were particularly significant: The division of the former New York-Newark, NY-NJ-PA PMSA into seven PMSA's and Pike County, Pennsylvania; the addition of Pike County to the former Orange County, NY-PA PMSA, which is now called the Newburgh, NY-PA PMSA; the addition of a formerly nonmetropolitan county to each of five MSA'S; and the recognition of the Jackson, TN MSA.<sup>4</sup>

Tables 1 and 2 follow beginning on page 130.

#### Acknowledgments

The revised estimates of local area personal income were prepared by the Regional Economic Measurement Division under the direction of Linnea Hazen, Chief. The preparation of the estimates was a divisionwide effort.

Estimates of nonfarm labor earnings (wages and salaries and other labor income) were prepared by the Regional Wage Branch under the supervision of Sharon C. Carnevale, Chief. Major responsibilities were assigned to Elizabeth P. Cologer, Lisa C. Ninomiya, Michael G. Pilot, John A. Rusinko, and James M. Scott. Contributing staff members were E. Frances Bake, Christopher T. Berry, Susan P. Den Herder, Elizabeth A. Freeman, Lela S. Lester, Russell C. Lusher, Richard A. Lutyk, Paul K. Medzerian, Michael Phillips, Adrienne T. Pilot, William E. Reid, Jr., Dolores A. Rynn, Victor A. Sahadachny, Eugene L. Souder, Darleen K. Won, and Jaime Zenzano.

Estimates of farm earnings (wages and salaries, other labor income, and proprietors' income) and the residence adjustments were prepared by the Quarterly Income Branch under the supervision of Robert L. Brown,

Assistant Division Chief. Major responsibilities were assigned to James M. Zavrel. Contributing staff members were Elaine M. Briccetti, Daniel R. Corrin, Richard H. Grayson, Michael S. Wagner, and Daniel Zabronsky.

Estimates of nonfarm proprietors' income, dividends, interest, rent, transfer payments, and personal contributions for social insurance were prepared by the Proprietors' Income Branch under the supervision of Bruce Levine, Chief. Major responsibilities were assigned to Charles A. Jolley. Contributing staff members were Sean P. Collier, Catherine A. Cumberland, Toan A. Ly, Ellen M. Wright, and Marianne A. Ziver.

The assembly of public use tabulations and data files and the preparation of the text and tables for this article were performed by the Regional Economic Information System Branch. Major responsibilities were assigned to Kathy A. Albetski, Wallace K. Bailey, and Gary V. Kennedy. Contributing staff members were H. Steven Dolan, Jeffrey L. Newman, Michael J. Paris, Albert Silverman, Callan S. Swenson, Hilda G. Tolson, Monique B. Tyes, and Mary C. Williams.

<sup>3.</sup> For the New England region, BEA uses a county-based definition rather than a definition in terms of cities and towns, because the available data for cities and towns are insufficient.

A list of the metropolitan areas and their definitions (Accession Number PB 93–505–824) is available from the National Technical Information Service (NTIS). The list in electronic form (Wordperfect 5.1, Accession Number PB 93–505–816) is also available through NTIS. Write to NTIS, Document Sales, 5205 Port Royal Road, Springfield, VA 22161, or call (703) 487–4650.

<sup>4.</sup> The PMSA's into which the former New York-Newark PMSA was divided are Bergen-Passaic, NJ; Jersey City, NJ; Middlesex-Somerset-Hunterdon, NJ; Monmouth-Ocean, NJ; Nassau-Suffolk, NY; New York, NY; and Newark, NJ.

The Msa's to which counties were added are Augusta-Aiken, Ga-sc; Baton Rouge, La; Chattanooga, TN-GA; Huntington-Ashland, wv-кү-он; and Wilmington, NC.

#### Data Availability

Personal income by type of payment and earnings by Standard Industrial Classification (SIC) division, as shown in table A, are available for metropolitan areas and counties for 1969-92. A version of this table that includes earnings by sic two-digit industry is also available. In addition, there are supplemental tables for employment by sic division (the "one-digit" level), for transfer payments by program, and for major categories of farm income and expenses.

The entire set of these tables for all counties and metropolitan areas and for all years will be available on a CD-ROM by the end of May. This CD-ROM will also contain quarterly State estimates of personal income for 1969-93, gross state product estimates for 1977-90, projections of State and metropolitan area personal income and employment to 2040 that have been updated to reflect the June 1993 changes in the metropolitan area definitions, and a description of the sources and methods used to estimate local area personal income. The CD-ROM is designed for use with microcomputers equipped with the MS-DOS operating system and will include a program to help users select, display, print, and copy the tables. The price is \$35.00.

These tables are also available on magnetic tapes, computer printouts, and microcomputer diskettes. Each table for all years of data for all the metropolitan areas or for all the counties is available on a single reel of magnetic tape, but the table that includes earnings by sic two-digit industry requires two reels at standard blocksize; the price of each reel of magnetic tape is \$100. The tables on computer printouts are priced by the number of pages; the minimum charge is \$10. The tables on diskette are priced at \$20 per diskette.

Materials available without charge include a sample packet of all available tables, a list of the State agencies and university research bureaus from which the BEA State and local area estimates can be obtained, and the description of sources and methods used to prepare the local area estimates.

For information on ordering these products, write to the Regional Economic Information System, BE-55, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230, or call (202) 606-5360. Visa or Mastercard are accepted for telephone orders.

Table A.—Example of Available Data for Local Areas: Personal Income by Major Source and Earnings by Major Industry, 1987-92 1

[Thousands of dollars]

		Ne	ew London Cou	nty, Connecticu	t	
	1987	1988	1989	1990	1991	1992
Income by Place of Residence						
Total personal income  Nonfarm personal income  Farm income <sup>2</sup>	4,432,832	4,696,727	5,001,642	5,129,498	5,286,014	5,567,535
	4,391,411	4,649,645	4,953,590	5,071,027	5,227,635	5,505,135
	41,421	47,082	48,052	58,471	58,379	62,400
Population (thousands) <sup>3</sup>	251.0	254.3	254.9	255.2	254.0	248.2
	17,664	18,472	19,625	20,102	20,809	22,427
Derivation of total personal income:  Total earnings by place of work Less: Personal cont. for social insur.  Plus: Adjustment for residence  Equals: Net earn. by place of residence Plus: Dividends, interest, and rent  Plus: Transfer payments	3,352,266	3,557,432	3,742,284	3,797,899	3,908,352	4,093,050
	203,584	221,909	238,690	246,894	259,895	269,416
	23,813	47,913	41,932	55,888	42,070	37,331
	3,172,495	3,383,436	3,545,526	3,606,893	3,690,527	3,860,965
	728,088	753,194	836,872	821,127	813,831	805,160
	532,249	560,097	619,244	701,478	781,656	901,410
Earnings by Place of Work		•				
Earnings by type: Wages and salaries Other labor income Proprietors' income 7 Farm Nonfarm	2,809,178	2,962,737	3,122,063	3,169,878	3,255,450	3,389,483
	256,365	277,716	306,191	316,737	342,460	367,214
	286,723	316,979	314,030	311,284	310,442	336,353
	30,829	35,200	35,595	42,317	42,424	45,747
	255,894	281,779	278,435	268,967	268,018	290,606
Earnings by industry: Farm  Nonfarm  Private  Ag. serv., for., fish., and other <sup>8</sup> Mining  Construction  Manufacturing  Nondurable goods  Durable goods  Transportation and public utilities  Wholesale trade  Retail trade  Finance, insurance, and real estate  Services  Government and government enterprises  Federal civilian	41,421 3,310,845 2,563,059 12,368 2,333 221,444 1,080,152 262,218 817,934 169,799 80,133 339,406 84,716 572,708 747,786	47,082 3,510,350 2,717,472 13,303 2,870 252,605 1,041,641 270,198 771,443 177,038 87,800 372,678 105,704 663,833 792,878	48,052 3,694,232 2,851,514 11,880 3,032 249,006 1,092,398 289,288 803,110 194,913 94,770 377,057 104,553 723,905 842,718	58,471 3,739,428 2,831,824 13,437 4,236 182,679 1,108,053 306,990 801,063 194,389 87,259 360,025 106,697 775,049 907,604	58,379 3,849,973 2,902,963 14,695 4,681 162,562 1,145,270 329,023 816,247 207,956 88,988 348,428 110,261 820,122 947,010	62,400 4,030,650 3,092,469 14,799 7,480 203,491 1,099,736 358,943 740,793 205,725 95,278 358,137 117,911 989,912 938,181 164,845
Federal, civilian Military State and local	132,857	140,846	144,193	158,604	156,766	164,84
	298,028	296,219	298,470	322,619	325,580	292,87
	316,901	355,813	400,055	426,381	464,664	480,46

<sup>1987</sup> based on 1972 SIC. 1988-92 based on 1987 SIC.

<sup>2.</sup> Farm income consists of proprietors' net farm income, the wages of hired labor, the payin-kind of hired farm labor, and the salaries of officers of corporate farms.

3. Census Bureau midyear population estimates. Estimates for 1990-92 reflect State and county
estimates available as of February 1994.

4. Personal contributions for social insurance are included in earnings by type and industry
but excluded from personal income.

but excluded from personal income.

5. U.S. adjustment for residence consists of adjustments for border workers; Income of U.S.

residents commuting outside U.S. borders to work less income of foreign residents commuting inside U.S. borders to work plus certain Caribbean seasonal workers.

Inside U.S. corders to work plus certain Canobean seasonal workers.

6. Includes the capital consumption adjustment for rental income of persons.

7. Includes the inventory valuation and capital consumption adjustments.

8. "Other" consists of wages and salaries of U.S. residents employed by international organizations and foreign embassies and consulates in the U.S.

P Not shown to avoid disclosure of confidential information. Estimates are included in totals.

D Not shown to avoid disclosure of confidential information. Estimates are included in totals.
Less than \$50,000. Estimates are included in totals.

Table 1.—Total Personal Income and Per Capita Personal Income by Metropolitan Area, 1990-92

	Total personal income							Total and the second by mode	•				C			3	
<b>.</b>		•		Percent	Perc	apita per	sonal inc	Rank in			otal person		Percent	Perc	<del></del>	sonal inc	Rank in
Area name	1990	ions of doll	ars 1992	change <sup>2</sup>	1990	Dollars	1992	U.S. 1992	Area name	1990	ons of dolla	1992	change <sup>2</sup>	1990	Dollars 1991	1992	U.S. 1992
United States 1	4,655,420	4,831,697	5,128,373	6.1	18,667	1991 19,163	20,105		Columbus OH	24,664	1991 25,870	27,845	7.6	18,264	18,859	19,974	92
Metropolitan portion	3,928,153 727,267	4,073,607 758,090	4,318,618	6.0	19,797 14,266	20,289	21,247		Columbus, OH	5,137 1,468	5,513 1,521	5,917 1,580	7.3 3.9	14,648 14,456	15,474 14,963	16,371 15,566	249 284
Consolidated Metropolitan Statistical Areas									Dallas, TX *	55,091 1,575 6,334	58,370 1,614 6,492	62,682 1,717 6,854	7.4 6.4 5.6	20,481 14,461 18,041	21,266 14,775 18,356	22,424 15,705 19,243	35 282 107
Chicago-Gary-Kenosha, IL-IN-WI Cincinnati-Hamilton, OH-KY-IN	178,641 33,873	184,540 35,189	196,063 37,562	6.2 6.7	21,635 18,588	22,154 19,080	23,312 20,140		Dayton-Springfield, OH	16,900 6,313	17,719 6,536	18,665 6,895	5.3 5.5	17,749 15,650	18,512 15,805	19,411 16,348	103 251
Cleveland-Akron, OH	55,519 80,619	57,388 85,095	60,580 91,422	5.6 7.4	19,397 19,868	19,955 20,543	20,959 21,692		Decatur, AL	2,037 2,110	2,183 2,147	2,326 2,252	6.5 4.9	15,419 18,004	16,267 18,254	17,100 19,134	214 115
Denver-Boulder-Greeley, CO Detroit-Ann Arbor-Flint, MI	40,913 104,758	43,822 106,805	47,203 112,702 84,663	7.7 5.5 7.4	20,600 20,175	21,591 20,460	22,592 21,484		Denver, CO*	34,181 7,777 87,449	36,565 8,183 88,794	39,331 8,798 93,890	7.6 7.5 5.7	20,995 19,715 20,483	21,965 20,457 20,705	22,930 21,647 21,796	31 48 45
Houston-Galveston-Brazoria, TX Los Angeles-Riverside-Orange County, CA	73,025 301,614	78,812 306,300	318,442	4.0	19,452 20,663	20,679	21,367	ļ	Detroit, MI *	1,919 1,626	2,033 1,738	2,180 1,846	7.3 6.2	14,624 14,567	15,372 15,182 16,953	16,359 15,909	250 275
Miami-Fort Lauderdale, FL Milwaukee-Racine, WI	62,388 31,851	63,975 33,058	64,453 35,218	.7 6.5	19,458 19,787	19,611 20,398	19,477 21,614		Dubuque, IA Duluth-Superior, MN-WI	1,427 3,686	1,471 3,873	1,585 4,111	7.7 6.1	16,509 15,342	16,098	18,172 17,060	161 218
New York-No. New Jersey-Long Island, NY-NJ-CT-PA Philadelphia-Wilmington-Atlantic	491,234	502,459	533,759	6.2	25,229	25,760	27,259		Dutchess County, NY *	5,619 2,084 6.863	5,673 2,166	5,894 2,322 7,854	3.9 7.2 10.2	21,618 15,135 11,508	21,739 15,591 11,615	22,424 16,600 12,497	35 243 307
City, PA-NJ-DE-MD	126,512 33,612	130,654 35,527	137,832 38,081	5.5 7.2 5.5	21,443 18,614	22,056 19,148	23,210 20,076	.,	El Paso, TX	2,651 1,517	7,124 2,714 1,574	2,955 1,640	8.9 4.2	16,949 15,922	17,237 16,545	18,547 17,231	140 205
Sacramento-Yolo, CASan Francisco-Oakland-San Jose,	28,820	30,107	31,777		19,271	19,550	20,326		Enid, OK	908 4,478	933 4,682	981 4,983	5.2 6.4	16,021 16,235	16,580 16,856	17,398 17,819	195 175 208
CA Seattle-Tacoma-Bremerton, WA Washington-Baltimore, DC-MD-VA-	155,119 63,334	158,704 67,616	166,781 73,562	5.1 8.8	24,755 21,161	25,057 22,123	26,019 23,492		Eugene-Springfield, OR Evansville-Henderson, IN-KY Fargo-Moorhead, ND-MN	4,519 4,900 2,487	4,692 5,043 2,579	5,003 5,435 2,783	7.8	15,908 17,542 16,184	16,313 17,971 16,606	17,202 19,215 17,656	108 181
WV Metropolitan Statistical Areas 4	159,226	165,232	173,591	5.1	23,593	24,173	25,087		Fayetteville, NCFayetteville-Springdale-Rogers, AR .	3,559 3,293	3,811 3,510	4,451 3,914	16.8	12,928 15,500	13,725 16,101	16,050 17,339	270 200
Abilene, TX	1,871	1,947	2,081	6.9	15,658	16,438	17,263	203	Flint, MI *	7,245 1,915	7,698 2,011	7,893 2,141	6.5	16,809 14,543	17.798	18.208	158 273 262
Akron, OH*Albany, GAAlbany-Schenectady-Troy, NY	11,658 1,597 16,829	12,025 1,709 17,378		6.1 4.2 5.3	17,702 14,190 19,501	18,106 15,063 20,017	19,056 15,461 20,976	286	Fort Collins-Loveland, CO	1,696 3,158 28,114	1,795 3,394 28,737	1,920 3,643 30,068	7.4	14,786 16,885 22,276	15,099 15,352 17,682 22,393	16,192 18,389 23,107	148 30
Albuquerque, NMAlexandria, LA	9,626 1,838	10,235 1,900	10,945 1,983	6.9 4.4	16,274 13,969	16,990 14,420	17,758	177 288	Fort Myers-Cape Coral, FL	6,563 5,177	6,801 5,383	7,151 5,635	5.1 4.7	19,396 20,361	22,393 19,603 20,649	21,233	78 54
Allentown-Bethlehem-Easton, PA Altoona, PA Amarillo, TX	11,236 1,925 3,041	11,669 2,005 3,212	2,151	7.3	18,839 14,741 16,222	19,387 15,292 16,976	20,545 16,384 18,172	247	Fort Smith, AR-OK	2,471 2,333	2,589 2,520	2,854 2,709	7.5	14,023 16,139	14,533 16,987	15,806 17,656	278 181
Anchorage, AK	5,489 10,064	5,824 10,313	6,166	5.9	24,119	24,791 20,656	25,077	16	Fort Wayne, IN	8,184 25,527 12,146	8,365 26,724 12,431	8,969 28,740 13,176	7.5	17,904 18,663 15,964	18,175 19,124 15,835	20,250	105 79 248
Anniston, AL Appleton-Oshkosh-Neenah, WI	1,577 5,522	1,671 5,802	1,764 6,264	5.6 8.0	13,570 17,474	14,452 18,158	15,158	290	Gadsden, AL	1,387 2,931	1,430 3,102	1,547 3,309	8.2 6.7	13,889 16,078	14,320 16,692	15,500 17,468	285 190
Asheville, NC Athens, GA Atlanta, GA	3,199 1,910 60,882	3,351 1,992 63,623		5.6	16,622 15,063 20,439	17,187 15,576 20,806	18,283 16,316 21,849	252	Galveston-Texas City, TX*	3,787 10,373 1,898	4,023 10,723 1,938	4,317 11,278 2,063	5.2	17,344 17,118 15,954	18,032 17,523 16,142	18,928 18,285 17,056	124 154 219
Atlantic-Cape May, NJ * Augusta-Aiken, GA-SC	7,229 6,906	7,265 7,256	7,739 7,725	6.5	22,556 16,528 17,059	22,440	23,720 17,414	24 194	Goldsboro, NC	1,379	1,446	1,543 1,678	6.7	13,146		14,325 16,257	297 258
Austin-San Marcos, TX Bakersfield, CA	14,511 8,592	15,470 8,918	9,306	4.4	15,682	15,651	15,836	277	Grand Rapids-Muskegon-Holland,	16,308	17,166	18,249	6.3	17,320	17,987	18,924	125
Baltimore, MD * Bangor, ME (NECMA) Barnstable-Yarmouth, MA (NECMA)	50,776 2,305 4,155 8,438	52,325 2,370 4,282	54,545 2,498 4,459	5.4	21,253 15,678 22,203	21,678 16,100 22,834	17,063	215	Great Falls, MT	1,241 1,956 3,522	1,305 2,080 3,707	1,383 2,271 3,996	9.2	15,974 14,822 18,037	16,651 15,592 18,684	17,452 16,718 19,845	
Baton Rouge, LA Beaumont-Port Arthur, TX	5,742	6,175	9,742 6,65	8.4 7.7	15,938 15,893	16,733 16,888	17,83	174	Greensboro-Winston-Salem-High Point, NC Greenville, NC	19,457	20,111	21,503	6.9	18,467	18,865	19,940	94
Bellingham, WA Benton Harbor, MI Bergen-Passaic, NJ*	2,157 2,579 36,035	2,335 2,670 36,291	2,836	6.2	16,724 15,985 28,181	17,518 16,553 28,307	17,566	185	II Greenville-Spartanburg-Anderson	1,671	1,759 13,673	1,890 14,453		15,417	15,854 16,216	16,809 16,945	233 225
Billings, MT	1,907 4,155	2,043	2,189	7.0	16,803 13,301	17,730 13,965	18,506	141	SC Hagerstown, MD * Hamilton-Middletown, OH	1,954 4,962	2,014 5,174	2,114 5,555	5.0	16,037 16,937	16,281	16,846 18,211	232 157
Birmingham, AL	14.814	15,561	16,679	7.2	17,533 17,594	18,303	19.428	102	Harrisburg-Lebanon-Carlisle, PA Hartford, CT (NECMA)	11,190 27,085	27,400		4.2	24,090	19,655 24,357	25,461	15
Bismarck, ND	1,589 2,360	1,389 1,678 2,450	1,512 1,804 2,675	8.9 7.5 9.2	15,935 14,541 18,211	15,409 15,265 18,607	17,57 16,23 20,04	184 259 88	Hickory-Morganton, NC	4,663 18,448 2,276	19,336		6.5	15,904 22,009 12,445	16,148 22,744 13,094	17,233 23,864 13,389	204 23 301
Boston-Worcester-Lawrence-Lowell-	5,128	5,504	6,067	1	17,204	17,801	18,98	123	Houston, TX * Huntington-Ashland, WV-KY-OH	65,995 4,369	71,324 4,590	76,742 4,947	7.6	19,741 13,981	20,749 14,631	21,737 15,711	281
Brockton, MA-NH (NECMA) Boulder-Longmont, CO * Brazoria, TX * Bremerton, WA *	4 776	5,177 3,464	5,60 3,60	8.2	22,589 21,129 16,837	22,359	24,109 23,513 17,68	1 179	Huntsville, AL	5,361 26,638 1,652	5,694 27,853 1,730	6,186 29,890 1,836	7.3	18,206 19,242 17,145	18,955 19,816	20,082	59
Bremerton, WA* Brownsville-Harlingen-San Benito,	3,324	3,635	3,94	8.5	17,318	18,145	18,71	132	Jackson, MI	2,340 6,086	2,403 6,437	2,520 6,860	5.0	15,586 15,354	15,893	16,628	241
TX Bryan-College Station, TX	2,512 1,522 21,277	2,680 1,617	1.74	31 7.7	9,590 12,481	13,173	10,64 13,92	3 300	I Janisana Thi	1 4000	1,267 17,164	1,39	9.8	15,418 18,010	16,032 18,409	17,340	199 113
Buffalo-Niagra Falls, NY Burlington, VT (NECMA) Canton-Massillon, OH	3,359 6,530	22,194 3,448 6,711	3,65	2 4.7 2 5.9 6.2	17,881 18,907 16,552	18,614 19,207 16,915	20,15	0) 83	Jackson, IN Jacksonville, FL Jacksonville, NC Jamestown, NY Janesville-Beloit, WI	1,529 2,100 2,365 10,753	1,601 2,178 2,404	1,847 2,278 2,637	15.4 4.6 9.7	10,201 14,796 16,906	15,331	12,782 16,083 18,474	268
Casper, WY	1,193	1,242 2, 3,310	1,27	5 2.6 4 6.8	19,486	20,056	20,37	7 76 3 73	Johnson City-Kingsport-Bristol, TN-	10,753	11,011	11,853	7.7	19,440	19,889	21,359	53
Champaign-Urbana, IL	2,835 7,844 4,310	l 8,225	8.58	4 4.4	16,382 15,406 17,214	15,703	17,45	9 191 9 259	Johnstown, PA	6,421 3,560	6,744 3,712		5.7	14,699 14,763	15,398	16,291	
Charlotte-Gastonia-Rock Hill, NC-SC Charlottesville, VA	1	22,517	24,10	7.1	18,592 19,248	18,876	19.88	4 95	Joplin, MO	1,950 7,374	7,758	2,220 8,200	5.7	14,435 17,137	17,918	18,793	130
Chattanagae TNLGA	7 020	7.237	7,71	6.5 1 5.9	16,572 17,663	16,906	17.89	5 172 3 117	Kankakee, IL* Kansas City, MO-KS Kenosha, WI* Killeen-Temple, TX	1,570 30,369 2,163 3,298	1,612 31,854 2,270	2.42	6.3 6.7	16,257 19,133 16,805	19.876	20,948	61 167
Cheyenne, WY Chicago, IL* Chico-Paradise, CA Cincinnati, OH-KY-IN*	1,292 164,535 2,753	169,936 2,831	180,63 1 3,00	2 6.0	22,157 15,024	22,692 15,169	15,93	1 22 5 274	II Knoxville. IN	9,699	10,346	3 799	142	16,805 12,897 16,498	13,225	14,878 18,364	293 151
Cleveland-Lorain-Elyria, OH*	43,86	2,212	2,54	6 6.6 7 15.1 4 5.4	18,904 12,091 19,904	19,427 13,066 120,511	14,29	5 299 3 51	Kokomo, IN	1,711 1,959 4,704	1,766 2,037 4,999	11,21 1,88 2,17 5,28	6.9 6.7 5.7	16,498 17,618 16,793 13,630	18,026 17,411 14,300	19,141 18,417 14,954	
Colorado Springs, CO	6,64	7,130 4) 1,969	7,70 9 2,10	8 8.1 5 6.9	16,724	17,650 17,165	18,30 18,00	0 153 4 169	Lafayette, IN Lake Charles, LA	2,494 2,409	2,608	2,80		15,428 14,322	15,979	17.015	221
Columbia, SC	7,89	8,224	4 8,71	6.0	17,339 14,594	17.699	18,47	2 143	Lakeland-Winter Haven, FL	6,229		6,81	5.3	15,292	15,676	16,268	
	ı	1	1	ı	ı	1	1	f	II	1	1	ı	I	1	1	1	ı

Table 1.—Total Personal Income and Per Capita Personal Income by Metropolitan Area, 1990-92—Continued

	1	Total persor	nal income		Per c	apita per	sonal inc	come 3		1	otal person	al income		Per c	apita per	sonal in	come 3
Area name	Mill	ions of doll	ars	Percent change <sup>2</sup>		Dollars		Rank in U.S.	Area name	Mill	ions of dolla	ars	Percent change <sup>2</sup>		Dollars		Rank in U.S.
	1990	1991	1992	1991–92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
Lancaster, PA Lansing-East Lansing, MI Laredo, TX Las Cruces, NM Las Vegas, NV-AZ Lawrence, KS Lawton, OK	8,035 7,321 1,208 1,676 16,433 1,175 1,468	8,178 7,656 1,356 1,762 17,775 1,238 1,540	8,696 8,031 1,542 1,908 19,417 1,326 1,724	6.3 4.9 13.7 8.3 9.2 7.1 12.0	18,918 16,890 8,972 12,279 18,928 14,302 13,183	19,002 17,576 9,624 12,493 19,127 14,853 13,832	20,018 18,401 10,387 13,016 19,994 15,682 14,310	90 146 309 305 91 283 298	Roanoke, VA Rochester, MN Rochester, NY Rochester, NY Rockford, IL Rockty Mount, NC Sacramento, CA' Saginaw-Bay City-Midland, MI	4,299 2,131 21,245 5,998 2,018 26,251 6,824	4,394 2,250 21,982 6,098 2,124 27,436 7,075	4,675 2,386 22,941 6,473 2,224 28,936 7,431	6.4 6.1 4.4 6.2 4.7 5.5 5.0	19,117 19,923 19,960 18,145 15,100 19,394 17,068	19,400 20,617 20,504 18,169 15,734 19,654 17,642	20,661 21,595 21,217 19,055 16,262 20,398 18,461	56 119 257 74
Lewiston-Auburn, ME (NECMA) Lexington, KY	1,729 7,070 2,475 3,696 8,475 3,012 184,246 17,294 3,521 3,178 4,721	1,757 7,435 2,551 3,927 9,012 3,166 187,096 18,178 3,626 3,265 4,957	1,836 7,937 2,732 4,171 9,805 3,393 194,054 19,556 3,860 3,428 5,234	4.5 6.8 7.1 6.2 8.8 7.2 3.7 7.6 6.5 5.0	16,412 17,351 16,019 17,237 16,481 15,531 20,752 18,197 15,801 16,341 16,187	16,784 18,008 16,442 18,123 17,367 16,147 20,907 18,959 16,181 16,625 16,800	17,677 18,893 17,497 18,995 18,650 17,178 21,434 20,211 17,185 17,276	180 127 188 121 136 210 52 82 209 202	St. Cloud, MN St. Joseph, MO St. Louis, MO-IL Salem, OR* Salimas, CA Salt Lake City-Ogden, UT San Angelo, TX San Antonio, TX San Diego, CA San Francisco, CA San Francisco, CA San San Jose, CA*	2,156 1,522 50,212 4,320 6,970 16,429 1,513 20,691 49,587 47,572 36,770	2,263 1,589 52,158 4,578 7,197 17,598 1,582 21,940 50,820 48,594 37,830	2,442 1,651 54,652 4,889 7,485 19,025 1,684 23,825 53,019 50,835 39,626	7.9 3.9 4.8 6.0 8.1 6.5 8.6 4.3 4.6 4.7	14,421 15,569 20,112 15,457 19,515 15,262 15,401 15,583 19,731 29,672 24,550	14,963 16,273 20,793 16,026 19,847 15,992 16,151 16,264 19,875 30,115 25,038	15,991 16,854 21,700 16,749 20,322 16,865 16,993 17,282 20,384 31,262 25,924	47 235 77 230 230 223 201
Madison, WI Mansfield, OH McAllen-Edinburg-Mission, TX Medford-Ashland, OR Melbourne-Titusville-Palm Bay, FL Memphis, TN-AR-MS Merced, CA	7,311 2,690 3,487 2,345 7,104 18,001 2,566	7,756 2,711 3,771 2,472 7,484 18,800 2,612	8,322 2,827 4,126 2,655 7,964 20,177	5.6 7.3 4.3 9.4 7.4 6.4 7.3	19,837 15,458 9,008 15,920 17,621 17,821 14,266 17,629	20,698 15,500 9,386 16,410 18,019 18,405 14,057	21,883 16,109 9,802 17,230 18,715 19,517 14,717	42 266 310 206 133 99 295 211	San Luis Obispo-Atascadero-Paso Robles, CA Santa Barbara-Santa Maria-Lompoc, CA Santa Cruz-Watsonville, CA* Santa Fe, NM	3,716 8,259 4,889 2,276 8,435	3,814 8,485 5,011 2,405 8,775	3,993 8,775 5,263 2,577 9,188	4.7 3.4 5.0 7.2 4.7	17,036 22,303 21,311 19,347 21,624	17,413 22,717 21,883 20,059 22,180	18,105 23,368 22,784 20,893 22,913	163 28 33 62 34 32
Mami, FL ' Middlesex-Somerset-Hunterdon, NJ ' Milwaukee-Waukesha, WI ' Minneapolis-St. Paul, MN-WI Mobile, AL Modesto, CA Monmouth-Ocean, NJ Monroe, LA Montgomery, AL Muncie, IN	34,274 26,695 28,581 54,579 6,759 6,054 22,892 1,941 4,829 1,883	35,238 27,483 29,617 56,693 7,316 6,250 23,522 2,055 5,103 1,974	2,783 34,384 29,396 31,604 60,958 7,833 6,615 25,040 2,200 5,444 2,112	6.7 7.5 7.1 5.8 6.5 7.0 6.7 7.0	26,106 19,927 21,421 14,135 16,130 23,154 13,655 16,465 15,741	17,807 26,617 20,526 21,955 15,054 16,179 23,640 14,368 17,126 16,485	23,284 15,806 16,738 24,935 15,181 17,931 17,543	6 44 29 278 236 17 289 171 186	Sarasota-Bradenton, FL Savannah, GA Scranton-Wilkes-Barre-Hazelton, PA Seattle-Bellevue-Everett, WA * Sharon, PA Sheboygan, WI Sherman-Denison, TX Shreveport-Bossier City, LA Sioux City, IA-NE Sioux Falls, SD	11,443 4,404 10,633 47,025 1,827 1,806 1,527 5,620 1,849 2,525	11,825 4,558 11,040 50,269 1,911 1,855 1,582 5,972 1,940 2,695	12,372 4,872 11,752 54,743 2,029 1,987 1,656 6,385 2,118 2,919	4.6 6.9 6.5 8.9 6.2 7.2 4.7 6.9 9.2 8.3	23,233 16,992 16,642 22,966 15,087 17,345 16,073 14,975 16,036 18,055	23,726 17,372 17,270 24,149 15,729 17,767 16,578 16,002 16,687 18,906	24,804 18,222 18,400 25,769 16,618 18,921 17,418 17,061 18,088 20,020	156 147 13 242 126 193 217
Myrtle Beach, SC Naples, FL Nashville, TN Nassau-Suffolk, NY New Haven-Bridgeport-Stamford Danbury-Waterbury, CT New London-Norwich, CT (NECMA)	2,200 4,209 18,127 69,738 45,370 5,129	2,316 4,377 19,219 70,774 45,830 5,286	2,443 4,486 21,049 73,825 48,531 5,568	2.5 9.5 4.3 5.9	15,182 27,300 18,333 26,736 27,790 20,102	15,524 27,327 19,144 26,992 28,070 20,809	29,777	271 9 70 7 3 3	South Bend, IN Spokane, WA Springfield, IL Springfield, MO Springfield, MO Springfield, MA (NECMA) State College, PA	4,166 5,922 3,657 4,186 11,137	4,303 6,354 3,764 4,469 11,223 2,001	4,606 6,888 4,016 4,784 11,505 2,124	7.1 8.4 6.7 7.0 2.5 6.2	16,830 16,320 19,262 15,775 18,459	17,297 17,091 19,689 16,553 18,656 15,954	18,387 18,069 20,837 17,357 19,187	149 168 63 197
New Orleans, LA New York, NY Newark, NJ Newburgh, NY-PA Norfolk-Virginia Beach-Newport News, VA-NC	21,038 210,790 48,727 6,174 24,258	22,256 216,605 50,182 6,376 25,475	23,562 231,232 53,526 6,779 27,056	5.9 6.8 6.7 6.3	16,382 24,661 25,434 18,300	17,227 25,362 26,188 18,609	18,087 27,039 27,830 19,463 18,077	165 10 8 101	Steubenville-Weirton, OH-WV Stockton-Lod, CA Sumter, SC Syracuse, NY Tacoma, WA* Tallahasse, FL Tampa-St. Petersburg-Clearwater,	2,159 7,838 1,243 13,187 10,038 3,719	2,202 8,097 1,309 13,485 10,505 3,936	2,323 8,541 1,388 14,159 11,377 4,195	5.5 5.5 6.0 5.0 8.3 6.6	15,175 16,183 12,081 17,730 17,002 15,824	15,490 16,374 12,523 18,003 17,363 16,365	16,415 16,942 13,171 18,815 18,361 17,103	2 227 303 129 152
Oakland, CA* Ccala, FL Odessa-Midland, TX Oklahoma City, OK Olympia, WA* Omaha, NE-IA Orange County, CA* Orlando, FL Owensboro, KY Panama City, FL	48,767 2,855 3,887 15,701 2,946 11,851 58,721 21,645 1,318	49,501 3,003 4,178 16,333 3,207 12,533 58,993 22,628 1,398 2,057	52,327 3,198 4,370 17,356 3,496 13,288 61,252 24,262 1,486 2,204	4.6 6.3 9.0 6.0 3.8 7.2 6.4 7.1	23,333 14,500 17,235 16,355 18,076 18,476 24,292 17,465 15,103 14,988	23,387 14,799 18,189 16,834 18,925 19,297 24,113 17,734 15,908 15,787	16,445	245	Tambardi. Petersong-Oreanwater, FL Terre Haute, IN Texarkana, TX-Texarkana, AR Toledo, OH Topeka, KS Trenton, NJ Tucson, AZ Tulsa, OK Tuscaloosa, AL Tyler, TX	37,291 2,162 1,748 10,802 2,995 8,440 10,213 12,360 2,215 2,560 5,002	38,570 2,283 1,801 11,045 3,110 8,712 10,806 12,982 2,323 2,685	40,882 2,462 1,909 11,793 3,281 9,321 11,493 13,667 2,473 2,880	6.0 7.8 6.0 6.8 5.5 7.0 6.4 5.3 6.5 7.3	17,964 14,650 14,524 17,581 18,563 25,877 15,285 17,387 14,666 16,906	18,405 15,439 14,945 17,973 19,130 26,639 15,992 17,989 15,145 17,532	19,400 16,551 15,784 19,166 20,076 28,443 16,651 18,681 16,092 18,648	244 280 112 87 5 240 135 267
Parkersburg-Marietta, WV-OH  Pensacola, FL  Peoria-Pékin, IL  Philadelphia, PA-NJ*  Phoenix-Mesa, AZ  Pine Bluff, AR  Pittsburgh, PA  Pittsburgh, PA  Portland, ME (NECMA)  Portland-Vancouver, OR-WA*  Providence-Warwick-Pawtucket, RI	2,245 5,174 6,179 105,962 40,237 1,121 45,437 2,693 5,115 29,292	41,676 1,150 47,864 2,835 5,166 30,949	44,319 1,227 50,956 2,904 5,420 33,193	7.8 5.0 5.6 6.3 6.6 6.5 2.4 4.9 7.3	17,916 13,136 18,969 19,335 20,993 19,192	22,188 18,244 13,476 19,946 20,567 21,116 19,716	19,018 14,386 21,175 21,226 22,178 20,681	254 110 27 120 296 57 55 40 66	Uftica-Rome, NY Vallejo-Fairfield-Napa, CA* Ventura, CA* Victoria, TX Vineland-Millville-Bridgeton, NJ* Visalia-Tulare-Porterville, CA Waco, TX Washington, DC-MD-VA-WV* Waterloo-Cedar Falls, IA Wausau, WI West Palm Beach-Boca Raton, FL	5,002 8,686 14,162 1,223 2,378 4,519 2,776 106,495 1,972 1,872 25,319	5,119 8,993 14,451 1,327 2,482 4,552 2,916 110,893 2,035 1,943 26,866	5,370 9,542 15,088 1,415 2,661 4,971 3,117	4.9 6.1 4.4 6.7 7.2 9.2 6.9 5.4 6.9	15,784 19,063 21,131 16,399	16,076 19,212 21,351 17,535 17,911 14,084 15,289 25,801 16,252 16,636	16,870 20,084 21,977 18,371 19,213 15,015 16,272 26,817 17,345 17,735	229 85 41 150 109 291 255 7 11 198 55 178
(NECMA) Provo-Orem, UT Pueblo, CO Punta Gorda, FL Racine, WI Raleigh-Durham-Chapel Hill, NC Rapid City, SD Reading, PA Redding, CA Reno, NV Richland-Kennewick-Pasco, WA Richmond-Petersburg, VA	17,372 3,015 1,728 1,945 3,270 16,725 1,248 6,516 2,446 5,925 2,538 18,535	17,672 1,348 6,673 2,550 6,313 2,776	18,488 3,590 1,963 2,118 3,614 19,172 1,436 7,111 2,713 6,856 3,055	8.4 6.5 5.1 5.0 8.5 6.5 6.6 8.6 10.1	19,310 16,456 23,113	12,314 14,977 17,251 19,361 19,986 16,102 19,581 16,539 24,035 17,840	13,052 15,863 17,761 20,131 21,086 16,896 20,723 17,212 25,529 18,989	304 276 176 84 58 228 65 207 14	Wesing, WV-OH Wichita, KS Wichita Falls, TX Williamsport, PA Williamsport, PA Wilmington-Newark, DE-MD* Wilmington, NC Yakima, WA Yolo, CA* York, PA Youngstown-Warren, OH Yuba City, CA	2,3,319 2,428 9,032 2,107 1,876 10,944 2,688 2,935 2,570 6,427 9,654 1,303	2,559 9,582 2,188 1,933	2,684 10,319 2,331 2,061 11,761 3,098 3,379 2,840 6,988 10,531 10,531 1,569	4.9 7.7 6.5 6.6 3.8 7.0 9.2 6.4 5.2 4.9 6.3	15,272 18,566 16,183 15,794 21,235 15,603 15,496 18,101 18,863 16,059 14,796 12,092	16,191 19,450 17,008 16,158 21,671 16,353 15,988 18,536 19,225 16,646 15,537	16,964 20,589	4 224 6 69 7 159 7 212 39 7 222 216 98 98 93 1 196 8 269
Riverside-San Bernardino, CA*	44,485	45,760	48,048	5.0	16,910	16,703	17,021	220	2 Per copite personal income we				<u></u>	<u> </u>	<u> </u>		<u> </u>

The personal income level shown for the United States is derived as the sum of the county estimates; it differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it ornits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

2. Percent change was calculated from unrounded data.

<sup>3.</sup> Per capita personal income was computed using Bureau of the Census midyear population estimates. Estimates for 1990-92 reflect State and county population estimates available as of February 1994.
4. Includes Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas (PMSA's designated by \*), and New England County Metropolitan Areas (NECMA's). The New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT NECMA is presented as a PMSA (part of the New York CMSA).

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990–92

	Γ	Total person	nal income		Per d	apita per	sonal inc	come 3		1	otal person	al income		Per c	apita pe	rsonal in	come 3
Area name	Mil	lions of doll	ars	Percent change 2		Dollars		Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
United States <sup>1</sup> Metropolitan portion Nonmetropolitan portion	4,655,420 3,928,153 727,267	4,831,697 4,073,607 758,090	5,128,373 4,318,618 809,755	6.1 6.0 6.8	18,667 19,797 14,266	19,163 20,289 14,761	20,105 21,247 15,628		Juneau Borough Kenai Peninsula Borough	639 855	678 907	720 938	6.2 3.5	23,666 20,803	24,304 21,271	25,390 21,571	1
Alabama Metropolitan portion Nonmetropolitan portion	60,332 43,416 16,916	63,863 45,952 17,911	68,358 49,243 19,115	7.0 7.2 6.7	14,899 15,979 12,696	15,614 16,705 13,374	16,522 17,660 14,169	l	Ketchikan Gateway Borough Kodiak Island Borough Lake and Peninsula Borough 4 Matanuska-Susitna Borough Nome Census Area	366 269 615	371 280 28 656	391 296 30 694 128 158	5.4 5.7 6.7 5.8 8.3	26,236 20,087 15,319 13,788	26,333 20,119 16,537 15,470 14,132		19 22
Autauga Baldwin Barbour Bibb Blount Bullock	482 1,498 332 200 519 105	210 558 115	552 1,765 393 229 599 120 266 1,764	6.4 7.8 7.5 9.1 7.3 4.8	14,034 15,141 13,049 11,982 13,164 9,534	14,795 16,020 14,449 12,363 13,975 10,339	15,563 13,309	20 51 25 66	North Slope Borough Northwest Artic Borough Prince of Wales-Outer Ketchikan Sitka Borough Skagway-Yakutat-Angoon Southeast Fairbanks Census	140 89 113 192 95	150 94 111 200 101	158 102 115 210 107	5.5 9.1 3.5 4.9 6.6	23,255 14,524 17,994 22,235 21,579	24,135 15,158 17,311 22,981 23,267	24,153	9 21 18 10
Butler Calhoun Chambers Cherokee	237 1,577 480 242	251 1,671 483 261	279	6.1 5.6 7.0 7.0	10,825 13,570 13,002 12,330	11,549 14,452 13,117 13,237	12,269 15,158 14,021 14,052	37 36	Area	88 230 59 167 119	93 248 59 173 91	97 269 61 190 95	4.3 8.8 4.1 9.4 4.7	15,369 22,837 10,173 23,662 14,188	16,543 23,824 9,866 24,549 13,862	17,033 25,826 9,993 26,963 14,406	26 3
Chilton Choctaw Clarke Clay Cleburne Coffee	409 193 345 169 171 605	441 207 364 180 181 655	469 217 385 193 185 707	6.3 5.0 5.6 7.4 2.5 7.9	12,572 12,055 12,621 12,745 13,448 15,015	13,343 12,913 13,233 13,557 14,191 16,214	14,107 13,446 13,869 14,486 14,280 17,168	29 33	Arizona	59,833 53,084 6,749	62,543 55,395 7,148	66,687 58,909 7,778	8.8	16,262 17,030 12,005	16,697 17,462 12,467	17,401 18,159 13,222	
Colbert Conecuh Coosa Covington	735 157 127 459	769 174 133 487	817 184 143 515	6.2 5.9 7.3 5.8	14,194 11,157 11,503 12,573	14,703 12,206 11,963 13,323	15,584 13,034 12,904 13,996	18 55 57 38	Apache Cochise Coconino Gila Graham Greenlee	502 1,247 1,257 510 264 105	542 1,320 1,341 542 278 119	605 1,437 1,470 585 303 135	11.6 8.8 9.7 8.1 8.7 13.3	8,107 12,738 12,938 12,612 9,930 13,124	8,674 13,334 13,440 13,153 10,268 14,353	9,623 14,172 14,302 13,795 10,978 15,671	8 7 9 13
Crenshaw Cullman Dale Dallas De Kalb	159 946 638 581 696	169 994 681 617 737 718	179 1,087 731 649 808 772	6.3 9.4 7.2 5.2 9.6	11,657 13,943 12,862 12,099 12,703	12,453 14,473 13,672 12,868 13,328	13,322 15,583 14,637 13,511 14,453	49 19 28 46 30 26	La Paz Maricopa Mohave Navajo	228 38,868 1,331 740	223 40,184 1,422 774	233 42,793 1,529 840	4.5 6.5 7.5 8.5	16,436 18,253 13,979 9,496	16,253 18,551 14,098 9,797	17,065 19,367 14,417 10,367	2 1 6 14
Elmore Escambia Elowah Fayette Franklin	437 1,387 220 354	459 1,430 226 385	479 1,547 242 426	7.6 4.3 8.2 7.1 10.7	13,708 12,307 13,889 12,211 12,749	14,152 12,892 14,320 12,497 13,738	14,705 13,294 15,500 13,422 14,969	52 21 48	Pima Pinal Santa Cruz Yavapai Yuma	10,213 1,369 342 1,554 1,303	10,806 1,493 362 1,646 1,490	11,493 1,526 385 1,785 1,569	6.2 8.5	15,285 11,750 11,473 14,314 12,092	15,992 12,631 11,753 14,711 13,377	15,376	11 12 5
Geneva	326 104 163 187	110 175 213		7.5 3.9 6.8 7.3	13,760 10,207 10,488 12,128	14,493 10,765 11,156 13,621	15,619 11,187 11,783 14,662	16 64 60 27 6	Arkansas	32,450 16,084 16,367	34,341 17,006 17,335	37,434 18,599 18,835	8.7	13,779 15,422 12,474	14,485 16,126 13,171	17,367 14,233	
Houston Jackson Jefferson Lamar Lauderdale Lawrence	1,281 666 11,758 199 1,180 382	205 1,241 417	1,450 771 13,194 218 1,324 445	7.3 9.0 7.1 6.7 6.6 6.7	15,695 13,903 18,029 12,652 14,769 12,100	16,400 14,596 18,797 13,046 15,355 12,996	15,724 20,061 13,986 16,182 13,821	14 3 39 10 41	Arkansas Ashley Baxter Benton Boone Bradley Calhoun	298 322 448 1,557 386 160 65	306 352 475, 1,679 407 166 68	333 374 511 1,882 435 181 73	7.5 12.1 7.0 9.0	13,758 13,232 14,333 15,834 13,623 13,548 11,155	14,269 14,397 15,002 16,536 14,209 14,151 11,660	17,827 14,897 15,579 12,744	17 9 4 21 11 60
Lee Limestone Lowndes Macon Madison	1,168 779 131 251 4,583	842 143 264 4,852	1,290 942 141 279 5,245	7.3 11.8 -1.4 5.9 8.1	13,344 14,334 10,378 10,092 19,081	13,583 15,180 11,301 10,828 19,809	11,115 11,452 20,876	65 62 1	Carroll Chicot Clark Clay	251 165 258 205 250	266 174 273 221	291 201 299 243	104	13,394 10,551 12,075 11,347	13,953 11,201 12,867 12,272	12,796 14,028 13,623	57 39 42
Marengo Marion Marshail Mobile Monroe  Montgomery	284 345 1,017 5,261 298 3,668	1,076 5,678 333	338	4.6 8.2 9.0 6.9 1.5	12,307 11,555 14,318 13,873 12,332	13,214 12,343 14,957 14,796 13,932 18,222	13,310 15,957 15,591 14,067	43 50 12 17 35	Cleburne Cleveland Columbia Conway Craighead Crawford Crittenden	250 91 336 243 934 488 631	266 94 353 259 1,001 520 660 239	288 99 376 279 1,099 571	5.2 6.4 8.1 9.8 10.0	12,823 11,707 13,091 12,698 13,479 11,411 12,622	13,368 12,062 13,741 13,448 14,366 11,914	15,487 12,857	61 25 27 14 54
Morgan Perry Pickens Pike Randolph	1,655 122 237 359 245	130 248	137	6.5 5.8 5.7 6.0 3.6	16,462 9,623 11,462 13,000 12,318	10,422 11,963 13,598	11,197 12,532 14,338	63 58 32	Cross Dallas  Desha Drew	218 123 184 197	131 198 215	271 140 219	13.4 7.4 10.5	11,360	12,441 13,699 11,970 12,373	14,071 14,783 13,460	37 22 46
Russell St. Clair Shelby Sumter Talladega	603 642 1,895 166	1,997 1,997 178	727 2,160 189	6.4 5.8 8.2	12,841 12,765 18,927 10,287	13,136	13,586 13,642 20,139 11,651	2	Faulkner Franklin Fulton Garland Grant	830 172 96 1,165 190 369	896 185 103 1,230 197	235 1,001 197 108 1,316 212	6.9 5.2 7.0 7.5	13,727 11,542 9,517 15,836 13,582 11,582	14,436 12,349 10,313 16,478 13,972	15,552 13,038 10,869 17,287 14,693	12 50 73 5 5 24
Tallapoosa	548 2,215 971 206 129	571 2,323 1,023 215 138	621 2,473 1,070 223 141	8.6 6.5 4.6 3.6 1.9	14,086 14,666 14,344 12,359 9,578	14,588 15,145 15,036 12,791 10,036	15,806 16,092 15,650 13,208 10,291	13 11 15 54 67	Greene Hempstead Hot Spring Howard Independence	247 312 192 413	396 260 315 200 431	432 296 338 220 472	10.0 9.3	11,396 11,946 14,138 13,245	14,714 13,693	13,539 12,795 16,207 14,933	45 58 7 7 7 19
Winston  Alaska  Metropolitan portion  Nonmetropolitan portion	265 11,550 5,489 6,061	12,226 5,824	12,970 6,166	5.9	20,887 24,119 18,627	12,872 21,498 24,791	13,815 22,067 25,077		Izard	137 225 1,121 203 99	147 239 1,150 218	150 272 1,227 243 113	2.4 13.9 6.6 11.2 8.5	12,031 11,838 13,136 11,130 10,339	12,760 12,550 13,476 11,765 10,982	12,821 14,347 14,386 12,996 12,104	55 31 30 5 5 5 6 6 6 6 7
Aleutians East Borough		172 5,824 190	6,166 207	8.6	17,477 16,481 24,119 12,956	13,594	20,853 25,077 14,416	6 24	Lawrence Lee Lincoln Little River	183 127 119	200 127 131 200	217 144 150 200	14.7	10,524 9,785 8,695 14,076	11,409 9,799 9,460 14,394	12,535 11,185 10,793 14,567	71 74 7 26
Bristol Bay Borough Denali Borough * Dillingham Census Area Fairbanks North Star Borough Haines Borough	98	35 85 1.415	37 93 1,522	7.5	17,301 17,195 24,806	19,976 20,703 17,706	21.026	14 12 17	Logan Lonoke Madison Marion	245 540 146 144	259 576 157	291 634 175 163	12.7 10.0 11.5	11,904 13,677 12,531	12,602 14,449 13,074 12,479	14,067 15,490 14,200	38 13 34

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	Total personal income  Millions of dollars  Percent			1	apita per			Crooner mooner by cou	-	otal person		-	Pero	apita per	sonal inc	come 3	
Area name		<del></del>			, , ,	Dollars		Rank in	Area name		ons of dolla		Percent		Dollars		Rank in State
	1990	1991	1992	change <sup>2</sup> 1991–92	1990	1991	1992	State 1992		1990	1991	1992	change <sup>2</sup> 1991–92	1990	1991	1992	1992
Miller	477 691 130 90 115	496 750 139 93 121	530 782 154 97 129	7.0 4.2 10.8 4.9 6.8	12,387 12,018 11,535 11,527 11,393	12,846 13,129 12,576 11,813 12,062	13,726 14,209 14,139 12,218 12,949	33 36 66	Ventura	14,162 2,570 733 <b>62,163</b> <b>52,444</b>	14,451 2,671 790 <b>66,519</b>	15,088 2,840 836 <b>71,600</b>	5.8 <b>7.6</b>	21,131 18,101 12,514 18,818	19,740	21,977 19,615 13,730 <b>20,666</b> <b>21,366</b>	56
Newton Ouachita Perry Philips Pike Poinsett Polik Pope Prairie Pulaski	69 385 91 309 129 274 209 635 108 6,218	74 400 95 322 136 302 217 680 112 6,601	80 420 107 353 147 323 239 761 120 7,134	6.8 5.2 12.5 9.6 8.6 7.0 10.1 11.9 7.1 8.1	8,997 12,653 11,474 10,712 12,814 11,127 12,053 13,758 11,360 17,767	9,626 13,401 11,750 11,405 13,597 12,417 12,492 14,392 11,992 18,788		32 59 62 23 47 43 8	Metropolitan portion Nonmetropolitan portion  Adams Alamosa Arapahoe Archuleta Baca Bent Boulder Chaffee Cheyenne	9,719 4,024 186 9,264 69 95 76 4,776 166 55	56,190 10,329 4,336 184 9,912 74 94 82 5,177 181 55	60,517 11,083 4,721 193 10,642 79 94 83 5,601 189 57	7.3 8.9 4.9 7.4 7.7 2	19,471 15,935 15,115 13,687 23,531 12,767 21,005 15,121 21,129 13,093 23,085	20,442 16,632 15,899 13,337 24,381 13,186 20,881 16,673 22,359 14,219 23,364		38 55 3 56 13 40 7
Randolph St. Francis Saline Scott Searcy Sebastian Sever Sharp Stone Union  Van Buren Washington White	175 307 888 115 76 1,598 184 161 105 732 156 1,736 660	184 312 939 123 80 1,659 197 171 114 765 164 1,831 706	197 347 1,036 1333 84 1,836 215 181 124 829 176 2,032 770	7.1 11.2 10.3 7.7 5.4 10.7 8.9 5.9 8.8 8.4 6.9 11.0 8.9	10,548 10,776 13,793 11,282 9,681 16,052 13,414 11,392 10,722 15,641 11,127 15,212 12,011	11,049 11,000 14,305 12,039 10,505 16,520 14,157 11,833 11,353 16,448 11,523 15,721 12,637	12,336 16,911 13,558	65 15 56 72 2 18 68 67 3 64 44	Clear Creek	132 66 41 43 31 266 10,390 21 1,488 477 169	141 70 40, 43 33, 291 10,983 21 1,617 518 182	150 74 42 50 35 316 11,830 25 1,748 576 198	5.9 4.8 16.1 8.3 8.4 7.7 19.0 8.1 11.3 8.9	17,345 8,898 12,828 10,972 15,699 12,665 22,248 13,683 24,147 21,503 17,376	9,383 12,264 10,964 16,116 13,567 23,256 15,123 24,216 22,087 17,668	18,713 10,043 13,070 12,780 16,583 14,395 24,449 18,200 23,845 23,419 18,281	63 60 61 42 54 4 28 5 8 27
Woodruff Yell California Metropolitan portion Nonmetropolitan portion Alameda Alpine	110 232 617,679 602,829 14,850 28,164 21	117 247 630,901 615,638 15,263 28,434	134 276 659,567 643,475 16,092 30,058 22	13.8 11.8 4.5 4.5 5.4 5.7 1.3	11,642 13,049 <b>20,656</b> <b>20,834</b> <b>15,336</b> 21,986 19,066	12,510 13,847 <b>20,748</b> <b>20,933</b> <b>15,311</b> 21,986 18,776	14,506 15,291 21,348 21,539 15,765 22,988 19,249	16	El Paso	6,644 388 506 47 134 137 8 69 23	7,130 408 528 53 144 150 9 75 26	7,708 446 551 62 153 162 9 80	6.5 6.4 3.9	16,724 12,039 16,671 15,404 16,741 13,259 17,273 11,522 14,669	17,650 12,699 16,927 16,688 17,667 14,321 18,701 12,772 16,240	18,300 13,634 17,640 19,400 18,154 14,963 18,806 13,636 16,415	58 31 17 29 51 20 57 43
Amador Butte Calaveras Colusa Contra Costa Del Norte El Dorado Fresno	473 2,757 531 301 20,603 302 2,480 10,864	501 2,831 554 314 21,067 320 2,588 11,113	524 3,002 587 320 22,268 337 2,726 11,754	4.4 6.0 6.0 1.9 5.7 5.5 5.3 5.8	15,619 15,024 16,336 18,423 25,465 12,610 19,357 16,171	16,029 15,169 16,254 18,928 25,588 11,319 19,340 16,110	16,658	44 39 21 4 58 18 38	Kiowa	9,015 44 135 85 508 3,158 163 83	9,716 42 134 92 553 3,394 177 93	10,390 41' 147 97 602 3,643 185 97	7.4 4.6 4.8	20,511 26,272 18,892 14,156 15,638 16,885 11,881 18,466	21,768 26,118 18,653 15,065 16,501 17,682 13,069 20,570	22,807 25,492 20,452 15,811 17,399 18,389 13,593 21,298	47 32 25 59 12
Glenn Humboldt Imperial Inyo Kern Kings Lake Lassen Los Angeles Madera	354 1,890 1,694 316 8,592 1,286 827 343 184,246 1,282	342 1,934 1,684 319 8,918 1,344 880 369 187,096 1,318	375 2,026 1,783 334 9,306 1,415 924 400 194,054 1,422	9.7 4.7 5.9 4.7 4.4 5.2 5.0 8.5 3.7 7.9	14,224 15,808 15,244 17,266 15,682 12,628 16,189 12,420 20,752 14,400	13,551 16,021 14,208 17,409 15,651 12,781 16,678 13,128 20,907 13,841	14,694 16,605 13,827 18,158 15,836 13,174 17,179 14,237 21,434 14,361	55 25 45 57 31 53 14	Logan Mesa Mineral  Moffat Montezuma Montrose Morgan Otero Ouray	281 1,425 8 181 252 352 386 272 38	288 1,536 9 188 266 378 411 296 41	323 1,656 10 203 291 411 431 311	6.5 8.2 9.3 8.8 4.7 5.2 6.4	16,039 15,202 15,309 15,898 13,490 14,367 17,616 13,515 16,347	16,610 15,940 16,422 16,310 13,993 15,101 18,405 14,728 16,697	17,208 17,376 14,885 16,116 18,968 15,588 17,253	37 35 33 52 45 19 48 34
Marin Mariposa Mendocino Merced Modoc Mono Mono Montery Napa Nevada Orange	7,977 235 1,308 2,566 138 178 6,970 2,526 1,427 58,721	8,082 236 1,328 2,612 135 172 7,197 2,621 1,474 58,993	8,430 254 1,386 2,783 140 186 7,485 2,761 1,551 61,252	4.3 7.9 4.4 6.5 3.4 8.3 4.0 5.3 5.3 3.8	34,654 16,299 16,189 14,266 14,306 17,675 19,515 22,714 18,028 24,292	34,805 15,823 16,282 14,057 13,904 17,523 19,847 23,478 18,101 24,113	14,243 18,712 20,322 24,387 18,653	41 33 49 52 23 16 7 24	Park Phillips Pitkin Prowers  Pueblo Rio Blanco Rio Grande Routt Saguache San Juan	117 73 403 202 1,728 88 171 300 57 12	127, 78, 426, 207, 1,844, 93, 162, 316, 58, 11,	137 79 469 215 1,963 102 162 338 59 9	9.9 3.9 6.5 9.4 4 7.0 .7 -15.8	16,173 17,443 31,695 15,178 14,045 14,877 15,933 21,100 12,193 15,432	16,460 18,873 33,565 15,582 14,977 15,401 15,156 21,531 12,277 14,979 18,166	17,004 19,226 36,356 16,350 15,863 16,646 15,151 22,426 12,191 15,176	18 1 44 46 41 50 11 62 49
Placer Plumas Riverside Sacramento San Benito San Bemardino San Diego San Francisco	3,747 324 21,348 20,023 619 23,137 49,587 20,868	3,945 337 21,815 20,904 617 23,945 50,820 21,472	4,158 356 22,783 22,052 643 25,265 53,019 22,554	5.4 5.6 4.4 5.5 4.4 5.5 4.3 5.0	21,364 16,349 17,886 19,070 16,803 16,100 19,731 28,863	21,728 16,710 17,489 19,345 16,483 16,046 19,875 29,571	17,170 17,682 20,171 16,760 16,466 20,384 30,942	32 28 17 35 42 15	San Miguel Sedgwick Summit Teller  Washington Weld Yuma	12 66 46 283 205 96 1,956 180	73 48 318 227 93 2,080 185	80 47 347 259 95 2,271 181	-1.6 9.2 14.1 1.4 9.2 -2.1	17,680 17,158 21,691 16,376 20,194 14,822 20,168	18,013 23,198 17,586 19,578 15,592 20,761	18,714 17,950 23,824 18,678 20,418 16,718 20,315	30 6 24 15 39 16
San Joaquin San Luis Obispo San Mateo Santa Barbara Santa Clara Santa Cruz Shasta Sierra Siskiyou Solano Sonoma Stanislaus	7,838 3,716 18,727 8,259 36,770 4,889 2,446 52 655 6,160 8,435 6,054	8,097 3,814 19,040 8,485 37,830 5,011 2,550 55 663 6,371 8,775 6,250	8,541 3,993 19,852 8,775 39,626 5,263 2,713 57 696 6,781 9,188 6,615	5.0 5.5 4.7 4.3 3.4 4.7 5.0 6.4 3.8 5.0 6.4 4.7 5.8	16,183 17,036 28,806 22,303 24,550 21,311 16,456 15,809 14,981 17,884 21,624 16,130	16,374 17,413 29,056 22,717 25,038 21,883 16,539 16,715 15,059 17,876 22,180 16,179	29,918 23,368 25,924 22,784 17,212 17,575 15,708 18,738 22,913	27 3 8 5 11 30 29 46 22 10	Connecticut Metropolitan portion Nonmetropolitan portion  Fairfield Hartford Litchfield Middlesex New Haven New London Tolland Windham	83,633 77,584 6,049 27,470 21,014 4,162 3,448 17,901 5,129 2,623 1,887	84,581 78,516 6,065 27,620 21,232 4,149 3,520 18,209 5,286 2,648 1,917	89,029 82,652 6,377 29,356 22,158 4,350 3,639 19,175 5,568 2,757 2,027	5.3 5.1 6.3 4.4 4.8 3.4 5.3	25,426 25,757 21,825 33,177 24,666 23,855 24,037 22,246 20,102 20,344 18,377	25,705 26,071 21,757 33,305 24,931 23,628 24,462 22,667 20,809 20,459 18,572	21,213	1 2 4 3 5 6 7
Sutter	1,094 646 181 4,519 746	1,181 679 188 4,552 797	1,260 729 201 4,971 846	6.7 7.3 6.5 9.2	16,859 12,951 13,855 14,391 15,277	17,542 13,309 14,350 14,084 15,862	18,136 14,037 15,152	26 54 47 48	Delaware	13,193 11,319 1,874 1,626	13,748 11,781 1,967 1,738	14,318 12,265 2,053 1,846	4.1 4.4	19,719 20,389 16,456 14,567	16,859	21,477	

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990–92—Continued

	Total personal income  Millions of dollars  Percent				Per c	apita per	sonal inc	come 3	-	T	otal person	al income		Per c	apita pe	rsonal in	come 3
Area name	Milli	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992	'	1990	1991	1992	1991-92	1990	1991	1992	1992
New Castle	9,693 1,874	10,043 1,967	10,418 2,053	3.7 4.4	21,854 16,456	22,336 16,859	22,897 17,137	1 2	Bieckley	142 123	157 132	164 143	4.5 8.4	13,538 11,071	14,834 11,683	15,424 12,289	49 150
Sussex  District Of Columbia	14,878	15,491	16,333	l	24,643	26,069	27,909		Brantley Brooks	171 204	191 218	205 237		11,096 12,999	12,391 13,256	13,288 13,351	124 122
Florida Metropolitan portion	244,604 230,987	254,585 240,170	265,764 250,601	4.4 4.3	18,785 19,087	19,180 19,468	19,711 19,996		Bulloch	519 230 192	559 247	597 261 221	6.9 5.9	11,974 11,166	12,653 11,954	13,179 12,434	128 148
Nonmetropolitan portion	13,617	14,414	15,162	5.2	14,810	15,390	15,956		Butts Calhoun Camden	65 366	203 72 414	73 461	8.6 1.7 11.2	12,455 12,999 11,871	13,081 14,456 12,108		102 62 151
Alachua Baker Bay	2,931 232 1,909	3,102 245 2,057	3,309 260 2,204	6.7 6.1 7.1	16,078 12,470 14,988	16,692 12,908 15,787	17,468 13,437 16,445	21 53 29 61	Candler	106	116	124	6.4	13,659	14,638	15,398	50
Bradford Brevard	1,909 253 7,104	267 7.484	287 7,964	7.7 6.4	11,188 17,621	11,620 18,019	12,440 18,715	15	Carroll	996 534 91	1,035 555 97	1,101 597 103	7.4	13,858 12,511 10,686	14,195 12,818 11,289	13,476	
Broward Calhoun Charlotte	28,114 116 1,945	28,737 122 2,014	30,068 129 2,118	4.6 5.9 5.1	22,276 10,521 17,265	22,393 10,847 17,251	23,107 11,356 17,761	6 65 19	Chatham	3,839 195	3,972 211	4,245 241	6.9 14.4	17,650 11,613	18,109 13,945	19,108 14,782	7 76
Citrus	1,367 1,786	1,429 1,874	1,508 1,970	5.5	14,447 16,720	14,685 16,999	15,123 17,241	38 22	Chattooga Cherokee	276 1,507 1,306	294 1,571 1,362	319 1,722 1,434	9.6	12,397 16,497 14,876	13,123 16,227 15,484	14,202 16,875 16,263	96 21 31
Collier	4,209 555	4,377 587	4,486 633	8.0	27,300 12,951	27,327 13,438	27,232 14,236	4 45	Clay	35 2,881	3,029	43 3,258		10,451 15,738	12,163 16,288	12,629 17,198	142 18
Dade De Soto Dixie	34,274 326 114	35,238 361 113	34,384 368 123	2.0	17,629 13,622 10,635	17,807 14,898 10,265	17,124 15,148 10,790	25 37 66	Clayton	9,890	72 10,280	79 11,188	10.4 8.8	10,716 21,933	11,489 22,148	12,697 23,368	140
Duval Escambia	12,038 3,952	12,528 4,149	13,324 4,463	6.4 7.6	17,780 15,007	18,189 15,540	19,011 16,474	14 28	Coffee	409 500 1,129	435 528 1,176	471 558 1,246		13,777 13,633 16,867	14,465 14,402 16,736	15,093	53 63 19
Flagler Franklin Gadsden	420 115 483	445 123 513	480 132 556	7.8 6.9 8.5	14,257 12,843 11,722	14,122 13,512 12,241	14,285 14,272 13,174	44	Cook	156 893	165 933	176 1,012	6.9 8.5	11,615 16,380	12,216 16,316	13,093 16,775	131 23
Gilchrist	111	121	131	8.2	11,416	12,029	12,538	60	Crawford	107 265	112 284	119 303		11,869 13,227	12,107 13,896	12,888 14,850	135 72
Glades	94 142 123	102 150 126	109 162 136	7.7 8.3	12,300 12,324 11,227	13,575 12,979 11,353	14,619 13,814 12,127	49 63	Dade Dawson	151 140	158 149	168 160	7.0	11,446 14,687	11,917 15,058		146 47
Hardee Hendry	295 403 1,477	312 463 1,561	320 475 1,664		15,085 15,610 14,381	15,585 17,071 14,626	15,930 17,128 15,183	24	De Kalb	344 11,406 206	372 11,880 222	382 12,703 235	6.9	13,446 20,816 11,694	14,424 21,364 12,449	22,542	77 3 126
Hernando Highlands Hillsborough	1,066 14,214	1,134 14,919	1,171 15,960	3.2 7.0	15,454 16,997	16,217 17,620	16,596 18,589	26 17	Doofy	123 1,388	145 1,480	149 1,545	3.0 4.4	12,455 14,425	14,606 15,302	14,924 15,801	69 42
Indian River	168 2,275	182 2,377	196 2,445		10,645 25,028	11,406 25,765	12,044 26,158		Douglas	1,112 153 26	1,155 168 27	1,248 175 29	3.9	15,521 12,893 11,244	15,721 14,150 11,599	16,550 14,617 12,571	
Jackson Jefferson	520 145	563 157	607 170	8.0 8.3	12,542 12,758	13,481 13,571	14,335 14,473	42 41	Effingham	361 254	368	390 280		13,897	13,840 14,108	14,202 14,783	97 75
Lafayette Lake Lee	66 2,500 6,563	68 2,603 6,801	72 2,776 7,151	6.6	11,784 16,274 19,396	12,078 16,529 19,603	17,217	23	Elbert	241 116	268 255 124	265 131	3.8	13,388 11,730 13,297		12,836 14,731	
Leon Levy	3,235 306 68	3,423 328 72	3,639 351	6.3 6.9	16,697 11,710	17,234 12,337	17,920 12,920	18 58	Fannin	186 1,348 1,270	199 1,439 1,345	216 1,570 1,440	9.1	11,617 21,312	12,248 21,696 16,458	12,988 22,534 17,515	4
Liberty Madison	183	195	78 208	9.1 6.6	12,098 11,053	12,612 11,681	13,584 12,430	62	Floyd Forsyth Franklin	832 249	883 262	968 281	9.7 7.2	15,612 18,597 14,924	18,763 15,498	19,420 16,389	6 29
Manatee Marion Martin	4,066 2,855 2,897	4,273 3,003 2,995	4,552 3,198 3,129	6.5 6.5 4.5	19,078 14,500 28,443	19,806 14,799 28,900	15,375		Fulton	16,835	17,500 201	18,771 214	7.3 6.4	25,916 14,252	26,662 14,455	28,194 14,925	i
Monroe Nassau	1,673 771	1,732 823	1,767 880	2.0 6.9	21,389 17,413	21,853 18,054	22,056 18,676	8 16	Glascock	1,096	34 1,135	36 1,205	7.3 6.2	13,283 17,481	14,689 17,914	15,867 18,881	41
Okaloosa Okeechobee Orange	2,333 383 12,138	2,520 400 12,739	2,709 417 13,639	4.2	16,139 12,867 17,727	16,987 13,105 18,176	17,656 13,617 19,086	50	Grdon	509 233 153	531 249 163	580 267 172	7.1	14,463 11,469 12,902	12,222	15,944 13,021 14,162	132
Osceola Palm Beach	1,585 25,319	1,670 26,866	1,795 27,831	7.5 3.6	14,404 29,103	14,405 30,347			Gwinnett Habersham	7,289 405	7,735 431	8,440 464 1,797	9.1	20,436 14,608	20,736 15,321	21,543 16,193	5 35
Pasco	4,074 17,525	4,178 17,912		5.3	14,456 20,496	20,864		9	Hall Hancock	1,581 97	1,664 103	111	7.7	16,469 10,841		17,972 12,340	
Polk Putnam St. Johns	6,229 764 1,848	6,472 814 1,939	6,816 890 2,064	9.3	15,292 11,696 21,786	12,267	13,258	55	Haralson Harris	299 284 284	312 293 295 100	327 308 312	4.9 5.0 5.5	13,569 15,918	16,441	16,895	20
St. LucieSanta Rosa	2,280 1,221 7,377	2,387 1,309	2,506 1,423	5.0 8.7	14,959 14,861	15,203 15,296	15,553	33 32	Hart Heard Henry	284 93 976	100 1,034 1,454	104 1.119	4.1 8.2	14,350 10,686 16,302	11,286 16,238	11,555 16,512	156 27
Sarasota Seminole Sumter	5,423 371	7,552 5,615 399	7,820 6,052 432	7.8	26,403 18,632 11,694	18,616	19,544	12	Houston	1,395 106 420	1,454 116 444	1,523 121 478	4.7 3.9 7.6	15,564 12,224 13,931	15,873 13,462 14,431		107
Suwannee	354 221	369 226	395 243	6.9	13,134	13,328	13,947	47	Jasper	117 162	119 165	478 129 174	9.0 5.8	13,761 13,484	13,867	14,876	71
Taylor Union Volusia	93 5,893	99 6,091	105 6,415	5.7 5.3	12,866 9,055 15,760	13,016 9,527 15,944	9,922	67 27	Jefferson	206 89	226 100	242 106	6.9 6.4	11,856 10,822	12,909 12,028	13,843 12,561	108
Wakulla Walton Washington	189 334 193	201 368 209	216	7.2	13,160 12,002 11,361	13,498	13,905	48 51	Johnson	91 320	98 335	105 356	7.4 6.3	10,926 15,393	11,663 16,001	12,693 16,751	141
Georgia	111,406	117,094	125,642	7.3	17,121	17,666	18,549		Lamar Lanier	160 70 552	167 76 591	178 81 635	6.8	12,229 12,561 13,793	13,331	14,049 15,524	105
Metropolitan portion Nonmetropolitan portion	82,762 28,644	86,608 30,485		7.4 6.9	18,917 13,434	19,372 14,132			LeeLiberty	209 436 96	229	236 626	3.2	12,805 8,261	13,683 9,498	13,557 10,973	116 158
ApplingAlkinson	182 76		205 88	3 10.4	11,546 12,244	12,872	14,085	101	Lincoln	59	64	70		12,797	1		l
BaconBaker	113 48 572	59	58	8.4 -1.8 6.0	11,824 13,303 14,443	12,440 16,070 15,487	13,221 15,983 16,225	37	Lumpkin	1,068 205 280 94	1,128 214		7.2	13,999 13,928	14,645	15,510 15,065	46 65
Barrow	572 139 425	147	157 484	7 6.9 4 9.0	13,417 14,132	14,007	14,676	81 64	McDuffie	157	298 101 169	106	5.2	13,875 10,880 11,973	11,540 12,914	11,849 14,092	153
Bartow Ben Hill Berrien	814 215 185	832 234	244	4.4	14,432 13,257 13,095	14,139	14,742	78	Madison Marion	292 63 245	305 68	325 73	6.6	13,747 11,301 10,887	14,079	14,722 12,805	80
Bibb	2,574	2,717	2,881	1	17,145		l '		Meriwether	82	258 95	96	5.1	13,124	15,029	11,972 15,182	152
See footnotes at end of table.	•	•	I	1	ı		1	ı	II .	I		l	1	í	ı	ı	1

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	Т	otal persor	nal income		Per c	apita per	sonal inc	come <sup>3</sup>	<b>I</b>		Total person	nal income		Pero	apita pe	rsonal inc	come 3
Area name	Milli	ons of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991~92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
Mitchell	242 243 90	267 249 95	280 265 100	4.8 6.2	11,931 14,177 12,482	13,130 14,210	14,792	114 74 113	Custer	60 324	54 339	55 358	1.0 5.6	14,527 15,242	12,938 16,382	13,548 17,390	34 9
Montgomery Morgan Murray	190	194 340	208 376	5.1 7.3 10.4	14,614 12,329	13,144 14,823 12,540	15,701	43 117	Franklin	98 143	103 141	110 154	6.6 9.2	10,637 13,038	10,906 12,608	11,563 13,698	43 33
Newton	325 2,733 590 312	2,942 623 325	3,135 670	6.6 7.5	15,200 14,031	16,345 14,305	16,823 14,973	22 66	GemGooding	164 181	174 188	189 201	8.7 7.2	13,750 15,571	14,178 15,826	15,021 16,712	22 12
Oconee Oglethorpe Paulding	130 576	135 596	345 143 652	6.0 6.3 9.3	17,555 13,211 13,710	17,796 13,539 13,343	14,053	12 104 110	Jefferson	188 204 230	193 212 235	208 226 253	7.4 7.0 8.0	13,580 12,297 15,121	13,896 12,471 15,149	14,625 12,939 16,153	27 36 13
Peach	330	343	360	5.0	15,529	16,009	16,367	30	KootenaiLatah	230 1,097 433 90	1,197 452	253 1,325 488 99	10.8 7.9	15,586 14,134	16,203 14,527	17,110 15,347	11 18
Pickens Pierce Pike	222 169 142	230 181 151	248 197 162	8.2 9.2 7.1	15,307 12,579 13,740	15,505 13,397 14,332	16,526 14,453 15,380	26 89 51	Lewis	!!	93 61	99 62	6.6	12,989 17,565	13,216 17,007	13,993 17,122	31 10
Polk Pulaski	437 115 205	446 131 210	472 140	5.8 7.3	12,899 14,160	13,084 16,266	13,767 17,367	111 15	Madison	62 51 230	46	51 245 258	10.4 4.4	15,193 9,692	13,797 9,965	14,961 10,228	23 44
PutnamQuitmanRabun	205 25 147	28 156	229 29 164	8.9 5.9 5.2	14,335 11,529 12,596	14,305 12,385 13,203	12,966 13,733	55 134 112	Minidoka Nez Perce Oneida	230 239 554 40	235 251 578 42	258 631 43	3.0 9.1 3.4	12,354 16,372 11,505	12,702 16,836 12,067	12,807 18,061 12,460	38 4 40
Randolph	91	101 3,327	105	4.8	11,396	12,409	13,128 17,322	130	OwyheePayette	105 209 133 198	107 220 120	109 239	1.5 8.8	12,428 12,702	12,604 12,996	12,712 13,700	39 32 7
Richmond	3,172 966 46	1,018 47	3,507 1,100 50	7.3	16,655 17,677 12,767	17,057 17,851 13,094	18,648 14,073	16 10 103	PowerShoshone	133 198	195	133 200	10.6 3.1	18,784 14,165		17,624 14,694	25
ScrevenSeminole	175 110 761	189 120 803	200 127 861	5.9 6.2 7.2	12,679 12,232 13,909	13,763	14,520 14,046	87 106 52	Teton	40 804	43 851	47 896	8.6 5.3	11,667 14,951	11,978 15,498	12,050 16,006	42 15
Spalding Stephens Stewari	322 62	338 65 446	361 69	6.6 5.5	13,828 10,884	14,459 14,344 11,811	15,123 12,589	61 143	Valley	106) 106)	115 113	124 122	8.4 7.8	17,268 12,320		17,913 14,021	5 30
Sumter	411 69	446 72	470 75	[	13,584 10,529	14,610 10,981	11,277	54 157	Metropolitan portion	230,790 202,665 28,125	237,427 208,866 28,561	252,858 221,965 30,893	6.5 6.3 8.2	20,159 21,129 15,150	21,599	21,774 22,749 16,646	
Taliaferro Tattnall Taylor	24 219 99 135 122 572 495 326	236 104	26 248 110		12,450 12,373 12,875	13,277 13,259 13,605	14,464 13,812 14,400	88 109 91	AdamsAlexander	1,075 120	1,114 124	1,187 136	6.6 9.1	16,265 11,342	16,801 11,749	17,895 12,838	32 100
Telfair Terrell	135 122	143 134 607	152 143 639	6.4 6.3 5.2	12,309 11,434 14,660	13,029 12,699 15,509	13,246 13,588	125 115 36	Bond	214 555 72	216 550 74	232 583 82	7.6 5.9	14,226 17,922	14,357 17,339	15,417 17,785	82 36
Thomas	495 326	528 346	555 366	5.1 5.6	14,132 13,522	14,933 14,305	15,603 14,941	44 67	Brown Bureau Calhoun	583 78	601 77	656 83 292 233	11.0 9.0 7.5	12,365 16,333 14,574	12,578 16,888 14,581	13,876 18,427 15,989	96 24 72
Towns Treutlen	86 65	89 71	94 74	6.3 4.3	12,627 10,864	12,880 11,884	13,440 12,527	120 147	Carroll	267 213 2,835	267 214 2,889	292 233 3,059	9.1 9.0 5.9	15,893 15,813 16,382	16,078 15,925	17,542 17,506 17,459	38 40 43
Troup	846 106	868 122	918 130	5.9 6.4	15,220 12,221	15,375 13,995	16,243 15,193	33 57	Champaign	586	572	616	7.6	17,004	16,680	17,986	31
Twiggs Union Upson	102 145 335	109 160 350	115 173 376	7.9	10,331 12,050 12,735	11,148 12,924 13,344	13,430	121	Clark	227 213 566	232 217 571	254 239 619	9.4 10.2 8.4	14,252 14,735 16,670		16,039 16,664 18,068	71 59 29
Walker Walton	772 563	809 601	865 649	6.9 8.0	13,223	13,739	14,577 15,923	85 39	Coles	776 108,616	797 111,876	861 118,479	7.9 5.9	15,042 21,273	15,460 21,863	16,615 23,053	61 3
Ware	455 69 277	485 72 293	513 77 316	8.0	12,844 11,333 14,480	13,672 11,777 15,250	12,830	93 137 28	Crawford  Cumberland  De Kalb	308 150 1,267	323 152 1,293	347 166 1,384	7.6 9.5 7.0	15,891 14,027 16,183	16,653 14,123 16,328	17,810 15,386 17,314	35 83 45
WayneWebster	295	321 32	339 33	1	13,141 12,410	13,808	14,230	95 73	De Witt	263	269	296	10.3	15,874	16,201	17,836	34
Wheeler	28 57 206	60 222	64 240	6.1	11,544 15,741	12,334 16,532	13,306 17,293	123 17	Douglas	302 21,726 292	307 22,549 287	324 24,146 313	5.4 7.1 9.2	15,528 27,656 14,958	28,133	16,661 29,587 16,225	60 1 68
Whitfield	1,215 84	1,259 96 161	1,374 101 169	9.2 5.5 4.5	16,723 12,021 14,517	17,177 13,730 15,279	14,580		Edwards	109 529 258	108 527	114 562	5.6 6.6	14,684 16,643	14,680 16,517	15,586 17,514	79 39
Wilkes Wilkinson Worth	154 139 239	141 263	148 274	5.1 4.3	13,600 12,097	13,759	14,415	90	Fayette Ford Franklin	256 555	259 258 555	289 284 602	10.0	12,331 18,047 13,780	12,514 18,451 13,843	13,935 20,420 15,091	95 10 86
Hawali	23,266 18,448	24,488 19,336	25,657 20,597	4.8 6.5	20,905 22,009	22,744	23,864		Fulton	560 104	567 98	606 112	6.9	14,709 15,052	14,934	15,917	
Nonmetropolitan portion	4,818	5,152	5,060	-1.8	17,538	18,090	17,294		GreeneGrundy	189 624	188 628	201 698	7.2 11.1	12,331 19,195	12,358 18,871	13,273 20,629	99 8
Hawaii Honolulu Kauai	1,948 18,448 929	2,087 19,336 1,008	2,196 20,597 636	6.5 -37.0	16,032 22,009 17,996		23,864 11,721	1 4	Hamilton	115 304 62	116 307 69	130 339 73	11.9 10.3 5.5	13,617 14,242 11,969		15,818	81 75 94
Maui + Kalawao	1,941	2,056	2,228	8.4	19,107	19,551	20,633	l	Henderson	113 813	117 802	131 857	11.4	13,961 15,913	14,431 15,730	15,756 16,761	76 57
Metropolitan portion Nonmetropolitan portion	15,482 5,128 10,355	16,368 5,504 10,865	17,746 6,067 11,679	8.4 10.2 7.5	15,304 17,204 14,511	15,773 17,801 14,912	18,982		Iroquois	503 773 157	513 795 159	566 844 179	10.4 6.1 12.3	16,336 12,670 14,837	13,109	18,184 13,848 16,970	97
AdaAdams	3,961 48	4,259 50	4,713 53	10.7 5.9	19,093 14,840		15,071	20	Jefferson	541 297	566 301	600 321	6.8	14,594 14,434	14,481	15,291	69 84
Bannock Bear Lake Benewah	884 67 112	70 118	1,018 77 128	10.2 9.1	13,347 11,054 14,040	14,670	12,374 15,849	41 16	Jo Daviess	365 119 6,574	370 122 6,843	403 130 7,318	6.6	16,753 10,457 20,561	10,627	18,417 11,147 21,936	
Bingham Blaine	514 314	939 70 118 534 338 54 401	566 359	6.2	13,667 22,774	13,900 23,588	14,278	28 2	KankakeeKendall	1,570 767	1,612 792	1,728 846	7.2 6.9	16,257 19,394	16,525 19,577	17,471 20,515	42 9
Bonner Bonneville	50 369 1,191	54 401 1,273	59 441 1,369	10.1	13,999 13,792 16,403	14,483 14,345 16,943	15,238	19	LakeLa Salle	871 14,281 1,704	888 14,936 1,778	959 15,899 1,925	6.4	15,450 27,477 15,909	28,139	29,386	
Boundary	97 37	102 36	114 38	11.3	11,555 12,868	12,214 12,589	13,190	35	Lawrence	257 547	271	295 557	1	16,130	17,048	18,713	22 70
CamasCanyon	12 1,167	11	12	96	15,808 12,879	14,664 13,326	16,114 14,057	14 29	Lee	682 481	518 679 482	738 520	8.6 8.0	15,868 17,332 15,638	17,271 15,776	18,608 16,965	23 53
Caribou Cassia Clark	96 332 24 119	1,245 99 332 22 130	1,353 107 352 22 137	7.9 6.2 .5	13,767 16,930 31,411	14,010 16,780 28,720	15,029 17,471 27,566	8	McDonough McHenry	433 4,001 2,360	451 4,106 2,450	492 4,421 2,675	9.0 7.7	12,280 21,594 18,211	12,919	14,117	93 5
Clearwater	119	130	137	5.0	14,065	15,235	15,774	17	McLean	2,300	2,430	2,0/5	9.2	10,211	10,007	20,049	12
See footnotes at end of table.																	

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	1	Total person	al income		Per c	apita per	sonal in	come 3		Т	otal person	al income		Per c	apita per	sonal in	come 3
Area name	Milli	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
Macon Macoupin Madison  Marion  Marshall Mason  Massac Menard	2,110 759 4,433 621 212 238 195 192 263 400	2,147 759 4,528 635 214 241 201 194	2,252 818 4,795 697 232 263 217 213	4.9 7.7 5.9 9.8 8.2 9.0 8.1 9.9	18,004 15,924 17,747 14,932 16,498 14,582 13,201 17,238	18,254 15,864 17,985 15,281 16,754 14,678 13,618 17,248	19,134 17,119 18,931 16,785 18,095 15,936 14,604 18,749	19 56 28 73 91	Johnson	1,618 574 1,117 365 7,962 1,682 619 2,048	1,699 598 1,142 372 8,218 1,737 654 2,068	1,834 661 1,228 404 8,633 1,853 702 2,177	6.7 7.3 5.3	18,257 14,431 17,085 12,340 16,707 15,683 14,413 15,652	18,564 15,020 17,464 12,508 17,138 16,059 15,182 15,732	16,177 16,551	8 46 14 89 3 23 3 31 54 47
Mercer Monroe Montgomery Morgan Moultrie	448 575 207	265 401 456 583 207	213 284 424 504 621 229	7.1 5.7 10.6 6.5 10.5	15,239 17,718 14,610 15,801 14,811	15,286 17,436 14,908 16,009 14,915	16,362 18,040 16,522 17,123 16,347	64 30 62 49 66	Marion Marshall Martin Miami Monroe Montgomery	15,625 649 140 510 1,589 557	16,352 666 148, 518 1,678 575	17,521 721 158 540 1,804 639		19,554 15,360 13,483 13,829 14,541 16,153	20,269 15,538 14,225 13,948 15,265 16,579	21,555 16,708 15,022 14,612 16,239 18,206	3 43 2 75 79 5 53
Ogle Perria Perry Piatt Pike Pope Pulaski Pulnam	750) 3,375 313) 288) 228 49 90 113	761 3,457 305 287 235 50 91	817 3,606 321 315 255 55 101 127	7.3 4.3 5.2 9.6 8.2 7.9 11.1 6.9	16,274 18,436 14,588 18,484 13,003 11,330 12,002 19,754	16,230 18,801 14,276 18,348 13,495 11,560 12,308 20,662	17,201 19,647 15,044 19,983 14,675 12,676 13,739 22,129	47 15 87 13 89 101 98	Morgan	875 197 555 68 229 217	922 188 563 71 237 232	986 215 618 76 259 253	7.0 14.3 9.8 7.3 9.6 9.1	15,569 14,502 14,597 12,729 12,409 12,511	16,094 13,696 14,705 13,331 12,748 13,118	16,813 15,510 15,982 14,350 14,006 13,864	39 67 57 82 84 84 87
Randolph Richland Rock Island St. Clair Saline Sangamon Schuyler Scott	503 238 2,798 4,113 400 3,465 100 75	505 245 2,872 4,234 417 3,570 100 73	526 271 3,020 4,517 441 3,803 110 82	6.7 5.7 6.5	14,580 14,398 18,827 15,653 15,102 19,389 13,288 13,354	14,607 14,814 19,245 16,133 15,851 19,841 13,308 13,170	15,282 16,351 20,151 17,166 16,715 20,968 14,651 14,538	58 7 90	Parke Perry Pike Porter Posey Pulaski Putnam Randolph Ripley	212 240 190 2,411 416 196 413 394 378	220 248 193 2,505 431 183 434 396 399	243 264 205 2,645 478 204 474 410 433	10.9 11.4 9.1 3.4	13,789 12,556 15,196 18,632 16,022 15,517 13,558 14,525 15,283	14,190 13,015 15,596 18,916 16,607 14,381 13,955 14,586 15,894	19,593 18,316 15,843 14,953	85 20 30 30 30 30 30 30 40 30 40 40 40 40 40 40 40 40 40 40 40 40 40
Shelby Stark Stephenson Tazewell Union Vermilion Wabash	321 104 861 2,245 235 1,336 207	317 99 864 2,243 247 1,369 204	350 111 929 2,365 266 1,472 220	10.4 12.5 7.6	14,412 15,899 17,891 18,116 13,337 15,153 15,812	14,244 15,415 17,930	15,732 17,499 19,211	77 41 17 20 88 55	Rüsh St. Joseph Scott Shelby Spencer Starke Steuben Steuben St. Joseph Steuben St. Joseph Steuben Steu	259 4,166 265 661 276 262	265 4,303 283 684 278 259 453	4,606 313 748 303 288 488	7.1 10.7 9.3 8.9 11.3	14,260 16,830 12,610 16,355 14,121 11,461 15,810	14,558 17,297 13,253 16,750 14,199 11,321 16,181	15,943 18,387 14,528 18,148	58 7 17 8 80 8 21 68 91
Warren Washington Wayne White White Whiteside Williamson	274, 243, 228, 251, 975, 6,679, 849	268 238 239 253 976 6,913 888	300 260 264 277 1,052 7,444 955	11.8 9.1 10.7 9.5 7.9 7.7	14,278 16,244 13,266 15,240 16,214 18,587 14,717	14,008 16,058 14,041	15,691 17,592 15,580 17,257 17,377 19,824 16,339	37 80 46 44 14	Sullivan Switzerland Tippecanoe Tipton Union Vanderburgh	435 269 89 2,021 273 91 3,031	278 97 2,126 280 92 3,122	307 105 2,278 298 101 3,356	10.1 7.7 7.2 6.4 10.6 7.5	14,168 11,445 15,476 16,920 13,018 18,346	14,692 12,468 16,124 17,368 13,038 18,854	16,173 13,140 17,104 18,492 14,229 20,176	55 90 4 29 2 16 83 5 5
Winnebago Woodford Indiana Metropolitan portion Nonmetropolitan portion	4,694 559 <b>93,415</b> <b>69,910</b> <b>23,506</b>	4,786 563 96,720 72,650 24,071	5,074 602 103,922 77,819 26,103	7.0 7.4 7.1	18,512 17,018 16,815 17,606 14,833	17,251 18,107	19,555 18,100 18,366 19,203 16,254	27	Vermillion Vigo Wabash Warren Warrick Washington Wayne Wells	241 1,585 533 117 787 303 1,099 432	256 1,676 541 101 807 308 1,129 436	273 1,804 568 128 855 336 1,204 469	6.0 8.9 6.6	14,371 14,944 15,175 14,273 17,476 12,770 15,264 16,646	15,433 15,732 15,482 12,421 17,602 12,831 15,673 16,786	16,836 16,298 15,658 18,346 13,751 16,689	5 37 5 52 6 62 6 18 1 88 9 44
Adams Allen Bartholomew Benton Blackford Boone Brown Carroll	467 5,725 1,141 152 200 774 201 304	471 5,865 1,179 138 201 812 212 305	491 6,279 1,309 162 215 880 229 329	1 8.4	14,969 18,997 17,865 16,097 14,234 20,788 14,218 16,160	14,706	15,640 20,583 19,984 16,836 15,352 22,925 15,583 17,012	4 6 36 70 2 64 32	White Whitley Iowa Metropolitan portion Nonmetropolitan portion	363 440 46,375 21,609 24,766	358 449 <b>47,695</b> <b>22,552</b> <b>25,143</b>	399 481 <b>51,225</b> <b>24,148</b> <b>27,077</b>	11.4 7.0 7.4 7.1	15,587 15,869 16,683 17,962 15,707	15,323 16,021 17,096 18,564 15,963	16,745 16,895 18,275 19,658	5 40 5 35
Cass Clark Clay Cinton Crawford Daviess Dearborn Decatur De Kalb Delaware	587 1,367 1,367 473 108 378 600 352 549 1,883	390 629 368 567 1,974	651 1,560 386 527 124 422 674 406 620 2,112	9.1 8.4 9.8 9.2 8.6 8.2 7.1 10.4 9.3 7.0	15,295 15,581 13,580 15,228 10,909 13,698 15,374 14,890 15,486 15,741	16,225 14,181 15,369 11,483 14,084 15,716 15,384 15,789 16,485	15,377 16,640 12,309 15,175 16,333 16,743 16,941 17,543	69 45 92 72 51 41 33 25	Adair Adams Alamakee Appanose Audubon Bention Black Hawk Boone Bremer Buchanan	127 70 199 183 116 345 1,972 425 353 312	125 69 191, 190, 120, 347, 2,035 442, 359, 318	136 74 211 203 127 377 2,175 477 390 339	8.2 10.3 6.7 6.1 8.6 6.9 8.0 8.5 6.7	14,426 13,356 15,780 15,390 15,909 16,879 15,440 14,958	14,533 13,849 13,868 16,559 15,429 16,252 17,468 15,780 15,199	15,993 15,273 14,786 17,925 16,615 17,345 18,929 17,086 16,193	3 86 3 90 8 93 5 24 5 62 46 9 11 6 52 3 79
Dubois Elkhart  Fayette Floyd Fountain Franklin Futton Gibson Grant Greene	389 1,098 251 268 275 275 500 1,147 418	277 503 1,186	735 2,955 431 1,252 278 295 303 545 1,241 479	8.9 10.1 8.3 15.5 8.0 9.4 8.5 4.6	18,208 16,949 14,968 16,932 14,102 13,137 14,545 15,673 15,463 13,688	15,056 17,443 13,475 13,357	18,547 16,482 18,626 15,511 14,386 15,850 17,173 16,730	15 49 13 66 81 59 27 42	Buena Vista   Butler   Calihoun   Carroll   Cass   Codar   Cerro Gordo   Cherokee   Chickasaw   Clarke   Clarke   Clarke   Clarke   Clarke   Clarke   Clarke   California	312 235 175 354 237 294 782 229 207 113	319 237 176 368 242 295 800 233 209 111	342 257 201 398 260 317 838 241 225	8.3 14.4 8.1 7.8 7.3 4.7 3.4 7.6	15,623 14,920 15,244 16,521 15,682 16,910 16,734 16,205 15,599 13,696	15,966 15,029 15,336 17,234 16,109 16,957 17,041 16,626 15,833 13,482	16,377 17,647 18,611 17,426 18,041 17,896 17,313 17,056	71 72 71 33 11 14 66 40 11 22 88 26 3 47 6 54
Hamilton Hancock  Harrison Hendricks Henry Howard Huntington Jackson Jasper	2,839 825 427 1,373 737 1,437 572 544	3,007 865 444 1,444 759 1,486 577 560 360	3,273 925 483 1,548 817 1,589	8.9 7.0 8.8 7.2 7.7 6.9 9.1	25,748 18,053 14,269 18,056 15,297 17,757 16,121 14,369 14,529	25,930 18,614 14,565 18,607 15,729 18,155 16,168 14,621 14,123	26,985 19,478 15,718 19,54 16,817 19,268 17,628 16,000	5 1 3 11 3 61 10 7 38 3 12 3 24 3 56 7 74	Clay Clayton Clinton Crawford Dallas Davis Decatur Delaware Des Moines Dickinson	291 285 807 252 528 113 101 289 710 273	287 274 828 262 556 111 101 280 726 276	311 302 891 283 602 119 107 300 765 299	10.2 7.6 7.9 8.2 7.2 6.1 7.2 5.3	16,537 14,940 15,806 15,094 17,668 13,584 12,173 16,026 16,641 18,251	16,254 15,748 18,336 13,396 12,434	16,128 17,409 17,032 19,49 14,40 13,228 16,370	8 82 9 41 2 55 1 5 1 95 5 99 6 73 6 28
Jefferson Jennings	282 399 313	286 416 325	304 454 362	9.1	13,102 13,352 13,216	13,858	13,930 14,930 14,760	6] 77	Dubuque	1,427	1,471	1,585	7.7	16,509	16,953		

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990–92—Continued

	1	Total person	nal income		Per c	apita per	rsonal inc	come <sup>3</sup>		-	Total persor	nal income		Pero	apita pe	rsonal in	come 3
Area name	Mill	ions of doll	ars	Percent change 2		Dollars		Rank in State	Area name	Mill	ions of doll	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
Emmet Fayette Floyd Franklin Fremont Greene Grundy Guthrie	173 316 272 180 121 152 206 175 270	171 316 272 173 124 158 211 179 286	189 337 288 198 137 181 230 193 306	10.3 6.5 6.0 14.6 10.2 14.5 9.3 8.1 7.1	14,943 14,458 15,965 15,859 14,728 15,127 17,120 15,950 16,832	14,737 14,467 16,174 15,313 15,277 15,812 17,673 16,117 17,831	16,241 15,490 17,077 17,755 16,856 18,094 19,164 17,364 19,022	77 89 53 29 60 20 9 43	Crawford Decatur Dickinson Doniphan Douglas Edwards Elk	520 76 279 118 1,175 77 44	549 75 277 131 1,238 78 44	588 76 305 140 1,326 82 48	7.2 1.3 10.2 6.9 7.1 4.0 9.1	14,641 18,891 14,711 14,602 14,302 20,415 13,359	13,916	15,903 17,406 15,682 22,711 15,281	85 53 91 10 97
Hamilton  Hancock Hardin Harrison Henry Howard Humboldt Ida Iowa	192 307 206 299 146 169 133 242	178 308 212 307 146 163 131 254 293	201 335 239 330 156 146 282	12.9 8.8 12.6 7.3 6.6 14.2 11.3	15,204 16,104 13,989 15,512 14,929 15,688 15,963 16,562	14,320 16,286 14,479 15,882 14,806 15,303 15,884 17,247	16,360 17,877 16,317 16,929 15,802 17,710 17,658 19,222	74 27 76 58 87 31 32 7	Ellis Ellisworth Finney Ford Franklin  Geary Gove Graham Grant	419 96 525 435 305 400 79 56 123	427 94 570 449 316 403 70 53 132	453 100 624 460 347 468 77 59	6.1 7.0 9.3 2.4 10.1 16.2 9.4 12.6 10.7	16,157 14,638 15,839 15,849 13,847 13,148 23,805 15,824 16,646	16,452 14,213 17,030 16,191 14,252 13,677 21,335 15,093 17,788	17,437 15,499 18,302 16,509 15,567 14,224 23,479 17,430 19,138	37 75 93 105 7 52
Jackson Jasper  Jefferson Johnson Jones Keokuk Kossuth Lee	292 589 249 1,652 270 178 289 594	596 247 1,730 264 179 263 621	322 638 265 1,836 286 190 315 662	9.9 6.9 7.1 6.1 8.3 6.5 19.6 6.6	14,672 16,910 15,252 17,145 13,886 15,355 15,602 15,371	14,775 17,143 15,096 17,940 13,503 15,408 14,414 15,966	16,137 18,255 16,086 18,824 14,495 16,456 17,359 16,986	81 18 83 12 94 70 45 57	Gray Greeley Greenwood Hamilton Harper Harvey  Haskell	94 52 117 59 124 506	98 57 118 70 116 541 88	95 48 125 70 125 572	-2.8 -16.2 -3.3 8.0 5.7	17,508 29,276 14,859 24,557 17,501 16,301 21,740	18,205 32,719 15,036 29,968 16,583 17,440 22,363	17,647 28,210 15,986 29,969 18,502 18,430 22,958	46 2 84 1 32 34
Linn Louisa Lucas Lyon  Madison Mahaska Marion Marshall	3,192 180 138 170 198 328 498 662 245	3,310 179 139 174 200 331 510 682	3,534 198 148 185 217 354 540 709	6.8 10.5 6.2 6.0 8.8 7.2 6.0 4.1	18,870 15,533 15,182 14,151 15,841 15,221 16,608 17,280	19,396 15,430 15,240 14,629 15,958 15,429 16,931 17,894	20,443 17,361 16,318 15,527 17,110 16,564 17,910 18,814	2 44 75 88 51 66 25 13	Hodgeman	39 178 251 75 9,143 100 129 65 333	37 177 256 63 9,696 94 126 66 350	37 196 282 71 10,339 96 139 66 363	10.6 10.0 11.8 6.6 2.8 10.4 -1.0 3.8	18,053 15,462 15,737 17,823 25,584 25,040 15,587 17,980 14,102	16,780 15,395 16,031 15,444 26,509 23,601 15,171 18,654 14,890	17,346 17,113 17,393 17,546 27,560 24,086 16,904 18,318 15,554	55 61 54 49 3 6 65 36 95
Mills Mitchell Monona Monroe Montgoeny Muscatine  O'Brien Osceola	245 192 148 124 190 708 254 109	682 256 188 145 129 196 729 258 111	271 200 164 137 208 788 269 116	5.9 5.9 13.6 5.7 6.0 8.0 4.1 4.7	18,603 17,562 14,746 15,257 15,770 17,710 16,448 14,937	19,254 17,342 14,563 15,863 16,428 18,006 16,783 15,356	20,224 18,510 16,583 16,694 17,623 19,292 17,485 16,189	3 16 64 61 34 6	Lane Leavenworth Lincoln Ling Logan Lyon McPherson Marion	51 891 61 115 51 500 450 181	51 940 56 114 52 535 458 181	48 1,043 64 127 52 566 493 201	-6.4 11.0 14.1 11.5 .1 5.9 7.8 11.4	21,641 13,770 16,826 13,940 16,410 14,398 16,471 14,082	21,973 14,151 15,838 13,598 16,939 15,546 16,863 14,156	20,957 15,558 18,299 15,083 16,518 16,497 18,009 15,872	16 94 38 101 74 76 43 86
Page	270 162 385 144 6,675 1,250 311 73	277 153 400 144 7,029 1,307 315 72	299 173 426 163 7,548 1,389 336 80	8.2 13.0 6.5 12.9 7.4 6.3 6.5 10.4	15,996 15,190 16,465 15,173 20,324 15,109 16,354 13,471	16,478 14,531 17,097 15,410 21,101 15,747 16,637 13,487	18,093 16,554 18,025 17,617 22,315 16,584 17,720 15,004	21 67 23 35 1 63 30 91	Marshall Meade  Miami Mitchell Montgomery Morris Morton Nemaha	200 83 366 126 571 87 58 179	194 86 372 115 580 85 61 186	221 86 402 125 610 94 63 197	13.8 .3 8.0 8.7 5.3 10.1 4.4 5.9	17,193 19,690 15,542 17,563 14,729 13,962 16,814 17,202	16,993 20,172 15,669 16,094 15,012 13,597 17,772 17,879	19,687 20,341 16,754 17,498 16,120 15,086 18,516 19,035	23 18 68 50 80 100 30 26
Sac Scott Shelby Sioux Story Tama Taylor Union Van Buren	187 2,723 206 436 1,146 271 88 185 98 538	187 2,817 212 462 1,206 269 90 186 99	207 2,978 224 492 1,278 286 98 200 109 593	10.9 5.7 5.5 6.6 5.9 6.3 7.9 7.4 10.3 6.3	15,212 17,988 15,599 14,566 15,430 15,573 12,372 14,501 12,734 15,056	15,407 18,364 16,017 15,292 16,208 15,501 12,862 14,745 12,782	17,174 19,184 16,988 16,219 17,191 16,482 14,006 16,060 14,125	49 8 56 78 48 68 98 85	Neosho	254 79 96 221 82 86 142 109	186 269 72 94 226 75 78 145 105 243	287 79 106 246 84 87 155 115	6.8 9.2 12.9 9.1 11.4 12.1 6.9 9.2	14,944 19,670 16,174 14,505 16,351 15,362 18,856 16,631	15,763 18,154 16,067 14,660 15,363 14,024 19,220 16,332	16,914 20,320 18,508 15,850 17,651 15,826 20,377 17,982	64 19 31 87 45 89 17 44
Warren Washington Wayne Wayne Whebster Winnebago Winneshiek Woodbury	574 329 96 617 203 321 1,615	558 599 335 95 655 193 320 1,699	648 350 104 701 218 346	8.2 4.6 8.6 7.0 13.2 8.2 9.1 8.0	15,878 16,771 13,626 15,293 16,739 15,422 16,396	13,617 16,287 16,074 15,396 17,105	17,464 14,993 17,538 18,352 16,460 18,539	65 42 39 92 36 17 69 15	Pottawatomie Pratt Rawlins Reno Republic Rice Riley Rooks	237 169 58 1,000 101 171 872 87	243 178 52 1,038 103 170 910 84 56	115 265 185 55 1,092 113 176 1,020 94	9.4 3.9 6.5 5.2 10.3 3.6	14,653 17,552 17,061 16,027 15,653 16,166 12,973 14,501	14,819 18,571 15,414 16,661 16,208 16,424 14,071 13,994	19,264	
Worth Wright  Kansas Metropolitan portion Nonmetropolitan portion  Alien	125 222 43,763 25,786 17,977	117 218 45,553 27,203 18,350	1,853 126 240 48,764 29,126 19,638	8.0 10.1 7.0 7.1 7.0 9.6	15,627 15,559 17,639 19,280 15,720	14,861 15,447 18,290 20,081 16,156	16,071 16,891 19,387 21,197 17,207	84 59	Rush Russell Saline Scott Sedgwick Seward Shavinge	61 141 939 116 7,680 303 2,995 53	133 965 127 8,142 352 3,110	60 144 1,023 139 8,772 342 3,281	8.6 8.0 6.0 9.1 7.7 -2.7 5.5	15,897 18,129 19,023 22,025 18,979 16,206 18,563	14,606 17,208 19,313 24,335 19,867 18,863 19,130	16,082 18,920 20,273 26,429 21,053 18,267 20,076	27 20 4 15 39 21
Anderson Atchison Barber Barton Bourbon Brown Brown Butler Chase Chautauqua	103 237 94 472 214 165 845 47	105 243 87 486 227 168 900 44 62	126 268 94 501 245 180 975 50 64	19.9 10.0 7.4 3.2 7.9 7.2 8.4 12.5	13,298 14,023 16,014 16,118 14,347 14,805 16,661 15,637 13,097	13,543 14,540 15,263 16,651 15,321 15,168 17,358 15,202 14,529	16,078 16,059 16,682 17,138 16,612 16,395 18,232 17,203 14,832	82 83 71 60 72 78 40 58	Sheridan Sherman Smith Stafford Stanton Stevens Sumner Thomas	124 77 92 60 108 416 143	60 124 77 94 65 114 416 149 56	65 126 85 95 56 115 450 140 60	8.3 1.4 9.7 1.9 -12.6 1.0 8.2 -6.3 8.6	17,708 17,883 16,025 17,181 25,658 21,289 16,102 17,230 16,289	20,238 18,254 16,329 18,100 26,975 22,480 16,015 17,948 15,512	22,052 18,638 18,329 18,819 24,211 22,366 17,246 16,774 17,185	5 11 57 66
Cherokee Cheyenne Clark Clay Cloud Coffey Comanche Cowley See footnotes at end of table.	279 59 57 149 178 129 49 552	290 59 52 142 166 136 46 564	321 58 52 157 176 151 47 599	10.6 -2.4 .2 10.6 6.5 10.7 2.6 6.1	13,090 18,415 23,702 16,343 16,248 15,309 21,279 14,957		14,874 18,142 22,223 17,075 16,702 17,601 21,886 16,338	103 41 12 63 69 47 14 79	Wabaunsee Wallace Washington Wichita Wilson Woodson Wyandotte	105 30 111 69 137 59 2,183	104 31 109 63 143 61 2,264	111 30 121 63 157 67 2,416	6.6 -2.2 11.1 8 9.7 10.0 6.7	15,887 16,742 15,753 24,983 13,401 14,377 13,495	16,059 16,619 15,871 23,298 14,262 15,140	17,269 16,426 18,090 22,855 15,625 16,771	77 42 9 92 67

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	T	otal person	al income		Per c	apita per	sonal inc	come <sup>3</sup>		T	otal persona	al income		Per c	apita per	rsonal in	come 3
Area name	Milli	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	rs	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991–92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
Kentucky Metropolitan portion Nonmetropolitan portion  Adair	54,454 30,654 23,800	57,520 32,275 25,244	62,043 34,698 27,345	7.9 7.5 8.3	14,751 17,187 12,474 11,321	15,483 17,957 13,165 12,121	16,528 19,068 14,138 13,248		Monroe Montgomery Morgan Muhlenberg	138 250 108 393 417	148 259 120 407 440	157 278 130 426 474	6.4 7.2 8.7 4.7 7.6	12,056 12,766 9,239 12,580 14,019	12,984 13,255 9,671 13,029 14,469	13,735 14,111 9,943 13,719 15,181	61 53 117 62 41
Allen Anderson Ballard Barren Bath	156 216 119 456 109	165 227 118 489	181 245 133 531 124	9.1 7.8 12.6 8.6 7.8	10,614 14,726 15,048 13,371 11,238	11,272 15,022 14,926 14,279 11,868	12,142 15,687 16,946 15,444 12,620	92 32 17 37	Nelson	83 243 756 105	92 251 799	99 268 835 124	7.4 7.0 4.5 8.1	12,375 11,539 22,516	13,661 11,840 22,713	14,530 12,678 22,891	48 81 1
Bell Boone Bourbon Boyd	327 993 282 854	351 1,064 294 884	378 1,167 313 960	7.6 9.7 6.4 8.6	10,412 17,079 14,669 16,704	11,278 17,523 15,219 17,206	12,248 18,498 16,169	89 10 26	Owen Owsley Pendleton Perry Pike Poweli	105 40 145 369 923 113	115 44 157 385 981 119	124 49 168 420 1,035 132	10.6 7.3 9.0 5.4 10.9	11,583 7,870 11,977 12,165 12,741 9,677	12,385 8,665 12,608 12,499 13,426 10,183	13,296 9,466 13,222 13,515 14,105 11,060	120 73 66 54
Boyle	360 96 162 184 609	377 101 168 195 642	408 105 189 213 697 132	8.4 3.8 11.9 9.2 8.5	14,041 12,289 10,333 11,298 12,715	14,618 12,782 11,210 11,945 13,013	12,932	31 77 84 79 63	Pulaski Robertson Rockcastle Rowan	619 23 148 201	25 161 221	720 26 171	6.9 5.9 6.1	12,473 10,829 9,947 9,814	13,212 11,490 10,751 10,704	13,978 12,203 11,359 11,208	90 100 102
Butler Caldwell Calloway Campbell Carlisle	114 162 427 1,310 77	121 171 461 1,370 78	132 182 505 1,455 87	9.2 6.1 9.4	10,162 12,254 13,867 15,592 14,735	10,690 13,143 14,948 16,236 14,884	11,586 13,989 16,125 17,106		Russell Scott Shelby Simpson Spencer Taylor	173 385 423 200 91 270	182 418 450 211 99 286	235 200 460 491 233 108 318	10.1 10.1 9.1 10.4 8.7 11.0	11,726 16,094 16,951 13,228 13,229 12,727	12,149	13,143 18,177 18,996 15,021 15,309 14,579	76 11
Carroll Carter Casey Christian Clark	124 256 141 742 432	134 277 156 799 459	148 303 171 911 488	9.9 9.3 9.7 14.1 6.3	13,387 10,481 9,969 10,783 14,613	14,225 11,196 10,965 12,072 15,438	13,371	96 68	Trigg Trimble	131 134 74, 249	135 141 80 257	162 155 85	19.5 9.8 6.9	12,899 12,033 15,065	13,492 12,906 15,700	14,645 14,275 13,608 16,877	51 64 18
Clay Clinton Crittenden Cumberland Daviess	432 198 86 106 66 1,318	218 95 110 72 1,398	243 103 118 77 1,486	7.4 6.9	9,136 9,416 11,507 9,804 15,103	9,937 10,371 11,913 10,669 15,908	11,179 12,774 11,455	109 104 80 99	Warren Washington Wayne Webster Whitley Wolfe	1,165 137 158 212 368 57	1,239 147 174 213 393 66	275 1,357 159 192 234 423 76	9.5 8.2 10.3 9.6 7.5 15.3	15,156 13,074 9,023 15,201 11,025 8,854	15,943 14,015 9,834 15,475	17,196 15,137 10,671 17,152 12,421 10,946	13 42 112 14 86
Edmonson Eliott Estill Fayette Fleming	97 53 147 4,381 141 503	106 57 156 4,590 150 533	115 65 168 4,887 166 572	13.2 8.2 6.5	9,356 8,178 10,018 19,361 11,472 11,554	10,202 8,785 10,442 20,064 12,074 12,145	9,918 11,082 21,015 13,187	118 105 4 75	Woodford  Louisiana Metropolitan portion Nonmetropolitan portion	60,228 48,264 11,964	64,083 51,215 12,868	68,167 54,419 13,748	4.3 6.4 6.3	20,538 14,279 15,279 11,295	20,757 15,100 16,098	21,219 15,931 16,953	3
Floyd Franklin Fulton Gallatin Garrard	732 111 63 155	778 115 71 161	827 129 79 173	6.3 12.7 11.7 7.7	16,704 13,479 11,667 13,325	17,719 14,108 12,849 13,560	18,539 16,072 13,931 14,258	9 28 59 52	Acadia	628 196 848 260 384	669 216 923 275 402	710 232 1,016 287 442	4.5 10.1	11,265 9,238 14,509 11,438 9,812	9,884 15,523 12,133 10,309		63 8 43 59
Grant Graves Grayson Green Greenup Hancock Grayson Greenup Gre	201 455 230 117 507 128	220 485 248 127 526 133	238 555 267 137 574	8.1 9.0	12,600 13,518 10,919 11,272 13,795 16,303	13,503 14,423 11,534 12,256 14,330 16,861	12,284 13,237 15,454	23 88 72 36	Beauregard Bienville Bossier Caddo Calcasieu	390 179 1,183 3,903 2,409	414 195 1,266 4,134 2,626	440 209 1,353 4,433 2,768	7.6 6.8	12,962 11,211 13,781 15,769 14,322	12,265 14,718 16,824	15,644 17,996	34 11 5
Hardin Harlan Harrison Hart	1,160 407 223 163	1,206 420 244 178	1,308 440 260 193	8.4 4.9 6.9 8.1	12,970 11,146 13,724 10,948	13,993 11,476 14,852 11,716	15,482 12,104 15,736 12,455	35 95 30 83	Caldwell	110 111 114 188 230	112 113 122 199 243	124 118 141 212 261	4.6 15.5 6.7 7.4	11,191 12,056 10,344 10,831 11,048	11,015 11,506 11,723	12,727 12,291 12,478	42 51 49
Henderson Henderson Henderson Hickman Hopkins Jackson Jefferson Henderson He	666 174 72 733 103 12,771	683 189 72 747 114 13,415	746 202 83 778 124 14,416	6.9 15.7 4.0 8.8	15,446 13,541 12,945 15,901 8,550 19,196	14,325 12,954 16,158 9,425	14,986 15,134 16,798 10,110	43 19 116	De Soto East Baton Rouge East Carroll East Feliciana Evangeline	292 6,440 88 225 342	306 6,825 117 238 373	339 7,362 109 255 403	7.9 -6.6	11,547 16,913 9,106 11,743 10,272	12,375	11,432 12,864	58 58 38
Jessamine Johnson Kenton Knott Knox	437 270 2,393 178	458 287 2,537 186	i	8.6 7.5 8.6	14,234 11,600 16,828 9,902 9,366	10,273	13,188 18,992 11,059	74 7 107	Franklin Grant Iberia Iberia Iberville Jackson Jefferson	222 187 893 387 186 7,628	252 193 963 410 200 7,986	269 206 1,015 449 211 8,395	6.4 5.3 9.5 5.5	9,912 10,695 13,075 12,472 11,862 17,011	11,021 13,963 13,207 12,916	13,606	57 1 17 20 27
Larue	278 170 526 146 68 133 303 120	178 566	161	7.8 8.4 13.1	14,458 12,071 10,446 9,162 9,754	15,136 12,779 10,872 9,429 10,442	16,229 13,589 11,347 10,135 11,737	24 65 7 101 5 115 7 97	Jefferson Davis Lafayette Lafourche La Salle	332 2,675 1,053 161	358 2,846 1,121 168	373 2,996 1,166 183	4.3 5.3	10,826 16,193 12,275 11,787	11,579	12,036 17,489 13,447	5 55
Letcher Lewis Lincoln Livingston	130	229 134	327 142 254 144	8.9 10.9 7.3	11,213 9,202 10,453 14,338	11,786 10,000 11,280 14,712	12,106 10,840 12,407 15,674	8 94 3 111 7 87 4 33	Lincoln Livingston Madison Morehouse Natchitoches	518 874 114 369 398		625 1,042 151 444 459	7.0		13,091 11,419 13,091 11,497	14,094 12,42 13,929 12,510	2 7 5 9 2 3 4
Logan Lyon McCracken McCreary McLean Mdison	299 74 1,070 122 123 741	79 1,139 140	1,22 150	9.0 7.2 10.0	12,238 11,103 16,979 7,820 12,758 12,843	18,019 8,842 12,569	12,145 19,165 9,655 13,913	5 91 9 5 5 119 3 60 8 49	Orleans Ouachita Plaquemines Pointe Coupee Rapides	8,188 1,941 364 274 1,838	2,055 385 279	9,284 2,200 395 318 1,983	7.0 2.6 14.1	16,541 13,655 14,257 12,195 13,969	14,368 15,037 12,370	15,18 15,25 14,03	1 12
Magoffin	114 202 396 153	128 215 423 163	1 1/		8,717 12,271 14,527 12,214	9,658 12,923 15,318 12,797	10,320 14,089 16,650 13,349	6 114 9 55 0 22 9 69	Red River Richland Sabine St. Bernard St. Charles	106 233 253 881 682 88 276 548	107 273 274 939 733 94	122 274 293 994 777	.5 6.9 5.9 6.0	11,352 11,320 11,245 13,209 16,046	13,386 12,184 14,070 16,850	13,472 12,754 14,833 17,509	2 29 6 46 3 15
Mason Meade Menifee Mercer Metcalfe	234 288 46 269 96	302 49 284	26 32 5 31 11	0] 9.1	14,021 11,862 8,933 14,037 10,772	12,66 9,576 14,75	13,46 10,35 15,89	5 67 2 113 3 29	St. Helena St. James St. John the Baptist St. Landry	88 276 548 947	94 281 568 999	106 294 599 1,082	12.9 4.4 5.3	8,936 13,250 13,677	9,482	10,710 14,150 14,54	8 6 3 2 1 1

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	Total personal income					apita per			r craonal moone by cou		otal person		1	Per c	apita pe	rsonal inc	ome 3
Area name	Milli	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991–92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
St. Martin	454 698 2,472 968 83	484 735 2,662 1,053 92	495 706 2,825 1,160 85	2.3 -4.0 6.1 10.2 -7.5	10,309 12,018 17,024 11,293 11,838	10,956 12,631 17,685 12,161 13,314	11,111 12,161 18,089 13,188 12,511	36 48	Alpena Antrim Arenac Baraga Barry Bay	443 260 200 96 769 1,835	465 269 210 103 818 1,916	491 286 218 106 859 2,011	5.7 6.3 3.7 3.7 5.1 5.0	14,450 14,241 13,367 12,060 15,351 16,417	15,074 14,432 13,635 12,820 16,181 17,140	15,852 15,118 13,921 13,576 16,785 17,936	39 50 67 70 29 18
Terrebonne Union Vermilion Vernon Washington Webster	1,223 254 592 659 476 534	1,300 263 602 738 499 572	1,331 293 633 782 549 599	1 1	12,596 12,291 11,843 10,610 11,030 12,732	13,191 12,765 12,019 11,548 11,698 13,789	13,339 14,064 12,570 12,213 12,773 14,459	24 46 52 39 19	Benzie  Berrien Branch Calhoun Cass Charlevoix	2,579 576 2,205 711 332	2,670 604 2,329 730	205 2,836 621 2,475 783 374	5.9 6.2 2.8 6.3 7.1 5.9	14,827 15,985 13,847 16,176 14,373 15,369	15,622 16,553 14,472 16,939 14,816 16,117	16,266 17,566 14,833 17,888 15,934 16,819	35 20 55 19 38
West Baton Rouge West Carroll West Feliciana Winn Maine Metropolitan portion	276 113 107 185 20,981 9,149	291 129 115 190 21,378 9,293	322 135 129 206 <b>22,456</b> <b>9,753</b>	10.7 4.1 12.5 8.6 5.0 5.0	14,228 9,335 8,261 11,380 17,041 18,445	14,849 10,675 8,894 11,898 17,294 18,716	16,267 11,228 9,863 12,734 18,163 19,719	64 41	Cheboygan Chippewa Clare Clinton Crawford	288 394 299 919 144	353 301 416 319 963 153	315 445 341 1,013 161	4.5 6.9 6.9 5.2 5.8	13,435 11,347 11,933 15,808 11,681	14,075 11,800 12,349 16,323 12,084	14,454 12,490 12,924 17,054 12,447	28 58 77 76 25 78
Androscoggin Anostook Cumberland Franklin Hancock Kennebec Knox Lincoln Oxford	11,832 1,729 1,194 5,115 416 835 2,042 635 574 752	12,084 1,757 1,223 5,166 423 867 2,088 653 577 764	12,703 1,836 1,277 5,420 446 910 2,188 685 609 801	4.5 4.4 4.9 5.5 4.9	16,093 16,412 13,724 20,993 14,291 17,714 17,560 17,459 18,866 14,267	16,784 14,005 21,116 14,460 18,208 17,832 17,829 18,920 14,535	17,126 17,677 14,661 22,178 15,167 18,968 18,680 18,621 19,913 15,228	8 13 1 11 3 5 7	Delta	540 450 1,588 465 7,245 272 233 1,096 550 606	568 435 1,674 492 7,698 286 254 1,180 575 617	602 462 1,764 516 7,893 305 263 1,271 610 670	6.0 6.3 5.3 4.9 2.5 6.8 3.5 7.7 6.0 8.5	14,270 16,728 17,044 18,491 16,809 12,336 12,929 16,983 14,089 13,929	14,905 16,156 17,723 19,143 17,798 12,658 14,178 17,942 14,596 14,023	15,751 17,118 18,515 19,799 18,208 13,271 14,715 18,884 15,456 15,083	41 24 14 8 15 74 56 11 46 52
Penobscot  Piscataquis Sagadahoc Somerset Waldo Washington York  Maryland	2,305 246 603 687 456 462 2,929	2,370 252 615 715 465 488 2,953	2,498 265 640 766 495 511 3,109	5.4 5.1 4.0 7.1 6.4 4.8	15,678 13,125 17,877 13,741 13,753 13,051 17,743	16,100 13,489 18,012 14,157 13,795 13,682 17,811	17,063 14,138 18,848 15,090 14,507 14,244 18,658	9 16 4 12 14 15 6	Houghton Huron Ingham Ionia Iosco Iron Isabella Jackson Kalamazoo Kalkaska	449 545 4,815 737 409 176 741 2,340 4,191	478 570 5,019 771 432 178 789 2,403 4,396 179	495 596 5,255 808 429 185 822 2,523 4,628 189	3.6 4.6 4.7 4.9 7 3.9 4.2 5.0 5.3 5.8	12,642 15,599 17,062 12,901 13,521 13,377 13,522 15,586 18,737 12,001	13,472 16,252 17,789 13,366 13,990 13,684 14,314 15,893 19,608 12,845	13,808 17,032 18,646 13,940 14,191 14,105 14,622 16,628 20,511 13,457	69 26 13 66 61 62 57 31 6
Metropolitan portion Nonmetropolitan portion  Allegany Anne Arundel Baltimore Calvert Caroline Carroll Cecil Charles Dorchester	1,122 9,331 16,391 1,066 391 2,549 1,251 1,954 478 2,949	103,275 6,125 1,155 9,536 16,841 1,093 399 2,640 1,291 2,025 488 3,010	108,011 6,403 1,200 9,929 17,483 1,160 417 2,769 1,343 2,137 512 3,214	4.6 3.9 4.1 3.8 6.1 4.4 4.9 4.0 5.5 4.9	14,986 21,759 23,616 20,521 14,425 20,528 17,414 19,190 15,811 19,489	15,437 21,936 24,034 20,031 14,586 20,720 17,593 19,438 16,189	16,102 22,492 24,794 20,289 14,942 21,228 17,910 20,147 16,945	21 5 4 10 22 9 16 12	Kenl Keweenaw Lake Lapeer Leelanau Lenawee Livingston Luce Mackinac Macomb	9,185 25 93 1,247 291 1,458 2,326 90 158 14,530	9,692 26 103 1,296 307 1,530 2,397 99 169 15,101	10,249 27 110 1,333 331 1,622 2,550 91 179 15,963	5.7 4.7 7.1 2.8 7.7 6.0 6.4 -7.4 6.1 5.7	18,285 14,577 10,831 16,589 17,601 15,883 19,950 15,561 14,818 20,223	19,074 15,615 11,653 16,859 18,327 16,373 20,047 17,185 15,736 20,868	21,920	7 37 81 27 10 23 5 34 30 4
Frederick  Garrett Harford Howard Kent Montgomery Prince Georges Oueen Annes St. Marys Somerset Talbot	381 3,576 5,074 350 24,150 14,881 722 1,246 290 777	392 3,687 5,227 356 25,076 15,286 732 1,324 304 805	412 3,824 5,486 371 26,254 16,043 763 1,398 313 836	5.1 3.7 4.9 4.3 4.7 5.0 4.2 5.6 3.0	13,514 19,464 26,799 19,611 31,800 20,326 21,167 16,301 12,377	19,385 13,640 19,461 26,832 19,668 32,583 20,532 21,095 16,874 12,976 25,835	14,183 19,562 27,439 20,216 33,614 21,373 21,690 17,560 13,279	23 15 2 11 1 7 6 18 24	Manistee Marquette Mason Mecosta Menominee Midland Missaukee Monroe Montcalm Montmorency Muskegon	299 992 363, 420 359 1,589 152 2,231 662 101	323 1,074 382 447 376 1,628 160 2,296 684 107 2,412	342 1,127 409 477 402 1,748 172 2,441 738 115	5.8 4.9 7.1 6.8 6.8 7.4 7.4 6.3 7.8 7.5	14,098 13,979 14,174 11,217 14,421 20,918 12,440 16,658 12,426 11,276		15,581 15,779 15,487 12,371 16,339 22,421 13,496 17,957 13,303 12,340	40 45 79 32 3 71 17 73
Washington	1,954 1,235 732 13,133 133,890 132,212 1,678	2,014 1,298 760 13,662 136,210 134,485 1,726	2,114 1,350 794 14,291 141,884 140,099 1,785	4.0 4.5 4.6 4.2 4.2	16,037 16,537 20,771 17,870 22,248 22,295 19,083	16,281 17,089 20,870 18,665 22,719 22,766 19,600	23,676 23,728	17 8 14	Newaygo           Oakland           Oceana           Ogemaw           Ontonagon           Oscoda           Oscoda           Otsego           Ottawa	502 29,518 311 209 122 242 80 270 3,424	536 30,086 329 226 128 257 88 280 3,564	570 32,072 349 237 132 285 94 299 3,853	6.5 6.6 5.9 5.0 3.1 10.9 6.8 8.1	13,072 27,168 13,799 11,108 13,763 11,984 10,227 14,939 18,115		13,992 28,671 15,185 12,086 15,090 13,821 11,406 15,641	1 48 82 51 68
Barnstable Berkshire Bristol Dukes Essex Franklin Hampden Hampshire Middlesex Nantucket	4,155 2,693 8,843 263 14,568 1,234 8,563 2,573 36,171 181	4,282 2,835 9,005 271 14,897 1,261 8,647 2,576 36,753 194	4,459 2,904 9,360 281 15,566 1,299 8,859 2,646 38,361 205	4.1 2.4 3.9 3.7 4.5 3.0 2.4 2.7	22,203 19,335 17,446 22,559 21,725 17,561 18,758 17,530 25,870 30,092	22,834 20,567 17,774 23,126 22,262 17,962 19,031 17,496 26,377 31,595	23,592 21,226 18,477 23,695 23,233 18,501 19,593 17,943 27,510 32,828	6 8 13 5 7 12 11	Presque Isle Roscommon Saginaw St. Clair St. Joseph Samilac Schoolcraft Shiawassee Tuscola Van Buren	183 264 3,399 2,477 869 569 110 1,057 792 978	190 281, 3,531, 2,563, 902, 583, 119, 1,096, 832, 1,032	195 297 3,673 2,701 969 615 121 1,141 867 1,097	2.7 5.8 4.0 5.4 7.4 5.5 2.4 4.1 4.3 6.2	13,319 13,238 16,032 16,927 14,748 14,226 13,268 15,125 14,257 13,909	13,718 13,759 16,620 17,244 15,261 14,468 14,384 -15,580 14,923 14,488	14,052 14,238 17,284 17,994 16,315 15,069 14,328 16,106	63 60 21 16 33 53 59 36 47
Norfolk Plymouth Suffolk Worcester Michigan	16,513 8,590 15,980 13,563	16,775 8,636 16,294 13,785 <b>175,001</b>	17,555 9,037 17,014 14,339	4.6 4.4 4.0	26,785 19,698 24,146 19,091 <b>18,239</b>	27,200 19,738 25,102 19,474 18,667	28,270 20,554 26,618 20,248 19,586	9 4 10	Washtenaw Wayne Wextord  Metropolities conting	6,281 37,445 358 <b>82,388</b>	6,386 37,452 374 <b>85,314</b>	6,747 39,380 405 <b>91,611</b>	8.3 <b>7.4</b>	22,138 17,756 13,536	19,276	18,787 14,955 <b>20,503</b>	
Michigan Metropolitan portion Nonmetropolitan portion	147,504 22,304	151,533 23,468	159,974 24,791	5.6	19,134 13,929	19,536	20.513		Metropolitan portion Nonmetropolitan portion	62,023 20,365	64,467 20,847	69,284 22,326	7.5 7.1 4.9	20,531 14,918 12,614	21,080 15,243 13,199	16,274	
Alcona	128 108 1,401	137 116 1,498	143 123 1,605	6.4	12,642 11,999 15,402	13,367 12,459 16,291	13,952 13,147 17,244	75	Anoka	4,139 371	4,303 379	4,639 400	7.8	16,872 13,297	17,046 13,459	17,913	21

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

Area name	<del>                                     </del>		al income		1 6 0	apita per	Sonai iik	MILE .	ľ	ı '	otal persona	ai income		rer ca	abua ber	sonal ind	come 3
	Mili	ons of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	ırs	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
Beltrami Benton Big Stone Biue Earth Brown	437 435 92 828 439	467 445 96 853 454	496 481 100 928 485	6.3 8.2 4.5 8.8 6.8	12,674 14,315 14,761 15,298 16,261	13,251 14,338 15,555 15,736 16,904		29	Metropolitan portion Nonmetropolitan portion Adams Alcorn	11,328 21,070 449 411	11,995 22,269 458 434	12,865 23,962 497 476	7.3 7.6 8.5 9.7	14,573 11,716 12,726 12,939	15,223 12,343 12,973 13,494	16,023 13,222 14,306 14,622	15
Carlton	828 439 396 979 279 216 469	419 1,005 295 213 485	485 453 1,108 321 221 518		13,516 20,238 12,737 16,380 15,267	14,213 20,033 13,286 16,258 15,441	15,299 21,322 14,058	65 7 78 33	Amite Attala Benton Bolivar Calhoun Carroll	122 199 74 437 166 93	129 213 78 497 174 98	138 225 85 535 192 106	6.8 5.2 8.8 7.6 9.9 8.7	9,218 10,776 9,230 10,444 11,118 10,052	9,660 11,527 9,820 11,960 11,789 10,488	10,290 12,215 10,617 12,795 12,911 11,420	79 52 74 43 41
Clay	696 92 64 196 650 5,833	709 98 69 192 688 6,098	780 104 74 204 739 6,645	10.0 5.7 8.3 6.3 7.4	13,791 11,109 16,611 15,466 14,625 20,995	14,008 11,979 17,325 15,507 15,170 21,275	15,277 12,726 18,242 16,496 15,913	87 17 46 57	Chickasaw Choctaw Claiborne Clarke Clay	210 90 103 201 256	223 92 105 213 269	241 98 115 223	9.5 5.0 6.2	9,906 9,906 9,027 11,634 12,097	12,320 10,096 9,166 12,306 12,614	13,367 10,879 9,946 12,901 13,364	30 72 80 42
Douglas Faribault Fillmomer Freeborn	251 404 271 306 508	254 419 262 312 508	271 449 285 315 542	6.9 7.2 8.6 .8 6.8	15,848 14,087 16,058 14,720 15,381	15,885 14,443 15,813 15,203 15,549	15,397 17,308 15,336 15,336	63 28 64 45	Coahoma Copiah Covington De Soto Forrest Franklin	361 280 173 1,087 883	401 291 183 1,139 920 86	286 425 318 201 1,227 977 93	6.0 9.4 10.0 7.7 6.1 7.8	11,432 10,133 10,447 15,846 12,916 9,816	12,716 10,520 11,097 15,943 13,372 10,491	13,426 11,427 12,190 16,572 13,981 11,382	29 67 54
Goodhue Grant Hennepin Houston Hubbard Isanti	675 97 25,577 292 187 385	707 100 26,348 292 198 400	770 114 28,322 310 211 430	8.8 14.1 7.5 6.0 6.4 7.5	16,553 15,504 24,738 15,759 12,537 14,820	17,249 16,187 25,377 15,779 13,028 15,148	18,729 18,765 27,197 16,479 13,648	11 10 1 47 81	George	82 175 95 264 397 2,192	185 101 285 423 2,299	202 113 303 451 2,474	9.1 11.2 6.6 6.7 7.6	9,260 12,243 12,456 13,258	9,659 13,059 13,025 13,821	11,748 10,522 13,835 13,549 14,584	75 18 25 12
Itasca	550 187 164 605 111 230	581 177 172 632 92 228	609 184 185 663 123 240	4.9 3.6 7.7 4.9 34.2 5.2	13,424 16,022 12,789 15,597 19,286 13,981	14,119 15,247 13,375 16,175 16,164 14,070	15,871 14,264 16,824 21,991	72 59 75 41 4 70	Hinds Holmes Humphreys Issaquena Itawamba Jackson	3,994 191 148 22 236 1,566	4,200 210 156 27 248 1,698	4,459 209 156 26 274 1,851	6.2 4 1 -5.9 10.6 9.0	15,700 8,850 12,239 11,676 11,765 13,597	16,492 9,776 13,080 14,430 12,363 14,427	17,515 9,805 13,061 13,731 13,609 15,298	81 36 21 23
Lac Qui Parle	139 137 59 364	139 147 62 370	146 156 66 400	4.8 6.1 6.1 8.3	15,656 13,141 14,484 15,678	15,958 14,096 14,683 15,815	16,886 14,781 15,292	38 71 66	Jasper Jefferson Davis Jones Kemper Lafayette	175 68 132 782 104 370	189 70 136 835 111 394	206 80 145 905 120 423	8.9 14.5 6.3 8.4 7.8 7.6	10,245 7,949 9,440 12,621 10,048 11,599	11,139 8,298 9,811 13,487 10,779 12,269	11,980 9,435 10,429 14,578 11,760 13,135	77 13 63
Lyon McLeod Mahnomen Marshall Martin Meeker	396 517 61 164 390	422 537 57 139 374 317	455 586 65 184 409 330 282	-8.2 7.7 9.2 12.8 32.0 9.3 3.9	14,292 15,999 16,088 12,197 14,998 16,996 14,852	17,178 16,664 11,441 12,884 16,430 15,151	18,547 18,098 12,852 17,188	14 19 86 31 18	Lamer Lamer Lauderdale Lawrence Leake	1,087 1,087 133 201	397 1,146 140 219	425 1,219 153 241 1,164	7.1 6.4	12,362 14,400 10,678 10,850	12,864 15,126 11,234 11,889	13,645 15,980 12,387 13,027	22 6 49 37
Mille Lacs Morrison Mower  Murray Nicollet	310 255 366 623 150 432 342	263 372 661 152 445	398 695 162 487	6.6 9.4	13,658 12,334 16,670 15,604 15,363	13,833 12,564 17,697 15,820 15,721	14,635 13,417 18,695 16,828 17,038	73 82 12 40 35	Leflore Lincoln Lowndes Madison Marion Marshall	469 355 836 798 271 325	503 374 844 855 281 336	540 398 891 919 302 365	7.3 6.5 5.6 7.5 7.6 8.5	12,567 11,713 14,034 14,704 10,598 10,682	13,431 12,297 14,053 15,325 11,081 10,802	14,411 12,925 14,757 15,780 11,886 11,634	14 40 9 7 59 66
Nobles Norman Olmsted Otter Tail Pennington Pine	342 137 2,131 724 197 252 157	349 121 2,250 746 200 266	357 144 2,386 795 219 286	9.6 7.5	17,029 17,281 19,923 14,271 14,824 11,800	17,438 15,485 20,617 14,600 14,977 12,374	18,662 21,595 15,477 16,475 13,083	13 5 61 48	Monroe Montgomery Neshoba Newton Noxubee	427 129 283 248 117	441 137 305 258 121	475 149 332 280 138	8.1 8.9 8.5 14.5	11,659 10,371 11,391 12,201 9,273	12,010 11,201 12,186 12,575 9,647	13,581 11,058	55 35 24 71
Pope	505 143 9,995 57	166 489 142 10,561 54	166 555 156 11,242 62	9.6 6.4 15.0	15,006 15,545 13,247 20,576 12,614 16,493	12,215	17,164 14,518 23,129	32 74 2 76	Oktibbeha Panola Pearl River Perry Pike Pontotoc	427 329 422 101 400 263	447 349 442 103 428 275	473 379 472 115 460 305	6.9 11.7 7.6 10.9	11,785	11,631 12,194	10,337 12,436 13,293	53 61 78 46 32
Redwood Renville Rice Rock Roseau St. Louis Scott	283 287 749 175 241 3,094 1,059	282 294 780 176 232 3,257 1,116	301 306 827 181 263 3,459 1,224	6.1 3.0 13.5 6.2	16,493 16,286 15,180 17,899 15,997 15,590 18,182	16,793 15,627 18,023 15,063 16,409	17,616 16,426 18,464 16,930 17,426	24 49 15 37 27	Prentiss Quitman  Rankin Scott Sharkey Simpson	246 104 1,294 285 77 273	260 108 1,382 310 83 292	283 125 1,485 357 82 327	7.4 15.1	10,572 9,989 14,755 11,763 10,874 11,365	11,110 10,477 15,417 12,845 11,848 12,144	12,431 16,106 14,630	47 5 10 65
Sherburne	630 211 1,721 527 166	665 209 1,818 539 169	718 221 1,961 573 180	8.0 5.6 7.8 6.4 6.0	14,873 14,734 14,448 17,102 15,670	15,136 14,662 15,124 17,430 16,061	15,647 15,474 16,178 18,414 17,192	60 62 52 16 30	Simpsoir Smith Stone Sunflower Tallahatchie Tate Tippah	173 126 345 141 268 222	184 136 380 150 281 233	200 146 398 164 300 250	8.4 7.4 4.8 9.5 6.7	11,698 11,661 10,500 9,272 12,477 11,327	12,518 12,393 11,335 9,947 12,988	13,523 12,946 11,780 11,105 13,733	28 38 62 70 20
Swift Todd Traverse Wabasha Wadena	156 283 82 322 155	159 291 81 328 159	165 311 94 350 170	3.9 7.0 15.8 6.9 7.0	14,574 12,121 18,406 16,285 11,831	15,081 12,496 18,621 16,482 12,284	15,935 13,361 21,408 17,541 13,278	56 83 6 25 84	Tishomingo Tunica Union Walthall Warren	192 82 272 130 698	202 84 287 138	221 96 314 150 784	9.4 14.2 9.6 8.7 7.1	10,820 10,069 12,301 9,029 14,594	11,320 10,399 12,868 9,575 15,323	12,337 11,885 14,007	50 60 16 76
Waseca Washington Watonwan Wilkin Winona Wnght	282 2,994 183 109 740 1,089	286 3,087 175 110 761 1,138	296 3,288 197 129 805 1,218	6.5 12.9 18.0 5.8 7.0	15,597 20,357 15,606 14,548 15,480 15,771	15,918 16,084	20,758 17,065 17,513 16,850 16,822	8 34 26 39 42	Washington Wayne Webster Wilkinson Winston	788 209 113 87 220	855 219 119 92 223	881 242 128 101 234	2.9 10.5 7.8 10.2	11,617 10,689 11,110 8,998 11,333	12,686 11,158 11,621 9,646	13,203 12,421 12,499 10,734	33 48 45 73
Yellow Medicine Mississippi	179 32,398	182 <b>34,265</b>	188 <b>36,827</b>	3.1	15,342 12,578	15,756 13,218	16,318	1	Yalobusha Yazoo	148 315	152 332	167 344		12,266 12,384	12,646 13,013	13,788 13,539	

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	Total personal income			Per capita personal income <sup>3</sup>				<del></del>			Total personal income				sonal inc	come <sup>3</sup>	
Area name	Mill	ions of doll	ars	Percent change 2		Dollars	•	Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
Missouri Metropolitan portion Nonmetropolitan portion  Adair	89,245 67,681 21,564	93,442 70,812 22,631	98,470 74,411 24,058	7.0	17,407 19,350 13,236	18,121 20,109 13,841	18,970 20,999 14,605	68	Putnam Ralls Randolph Ray Reynolds	61 125 338 297 73	64 131 348 305 80	67 143 362 329 77	5.2 8.9 4.1 7.8 -2.9	12,056 14,731 13,899 13,486 10,974	12,746 15,445 14,705 13,927 11,861	13,483 16,737 15,197 15,105 11,740	83 16 47 50 106
Andrew Atchison Audrain Barry Barton Bates Benton Bollinger Boone	213 111 352: 360 152 201 160 115 1,834	219 115 364 384 157 201 170 121 1,969	228 124 383 401 176 226 179 129 2,105	4.3 7.3 5.3 4.3 12.0 12.3 5.5 6.6 6.9	14,514 14,938 14,912 13,015 13,438 13,394 11,447 10,821 16,269	14,827 15,672 15,469 13,732 13,754 13,406 11,981 11,375 17,165	15,387 17,252 16,394 13,989 15,313 15,032 12,400 12,057 18,004	21 71 45 54 99 103 9	Ripley St. Charles St. Clair Ste. Genevieve St. Francois St. Louis Saline Schuyler Scotland	122 3,909 103 224 597 25,112 347 51 64	133 4,034 108 228 634 26,101 369 53 67	141 4,268 116 240 663 27,230 373 56 75	5.9 5.8 7.4 5.2 4.5 4.3 1.1 4.5	9,892 18,212 12,142 13,915 12,171 25,246 14,800 12,037 13,353	12,782 26,157 15,950 12,710 14,189	11,148 18,869 13,571 14,877 13,217 27,211 16,351 13,360 15,921	113 6 81 60 91 1 22 87 29
Butler Caldwell Callaway Camden Cape Girardeau Carrol Carter Cass Cedar Chariton	506 506 480 414 982 152 61 1,029 147	549 105 503 432 1,035 153 66 1,055 151	593 115 528 463 1,107 171 70 1,135 158	8.0 9.3 4.9 7.0 7.0 11.4 5.3	13,020 12,219 14,607 15,001 15,900 14,160 11,014 16,026 12,157	13,972 12,610 15,086 15,341 16,599 14,495 11,663 15,988 12,563	15,007 13,731 15,658 15,981 17,482 16,149 12,207 16,818 13,148	56 79 37 27 10 26 101	Scott Shannon Shelby Stoddard Stone Sullivan Taney Texas Vernon Warshindton	72 103 391 288 74 386 236 236 265 295	572 78 105 407 304 80 412 243 282 306 230	608 83 108 436 340 82 457 255 280 325 239	6.5 6.0 3.4 7.0 11.8 2.2 11.1 4.8 6	13,964 9,426 14,827 13,530 15,034 11,740 15,011 10,971 13,919 14,991	14,557 10,273 15,304 14,138 15,368 12,860 15,584 11,168 14,743 15,179	15,394 10,653 15,913 15,055 16,308 13,218 16,574 11,723 14,953 15,716	115 30 53 23 90 18 107 57 34
Christian Clark Clay Clinton Cole Cooper Crawford Dade Dallas	459 459 2,853 2,853 250 1,081 203 245 94 147	497 87 2,936 256 1,129 218 254 97	539 98 3,132 271 1,198 233 275 107	8.6 13.0 5.6 6.1 6.9 8.0 9.8 6.6	13,893 11,105 18,502 14,982 16,959 13,687 12,728 12,650 11,589	14,320 11,573 18,716 15,231 17,440 14,702 12,947 13,080 11,668	14,926 13,043 19,691 15,944	58 94 5 28 7 39	Washington  Wayne Webster Worth Wright St. Louis City Montana Metropolitan portion	218 121 283 30 183 6,930 11,790 3,149	131 292 32 182 7,362 12,623 3,348	135 315 33 195 7,615 <b>13,344</b> <b>3,568</b>	3.7 3.3 7.9 4.4 7.2 3.4 <b>5.7</b> <b>6.6</b>	10,636 10,478 11,916 12,482 10,873 17,524 14,743 16,466	11,158 11,027 12,169 12,961 10,770 18,834 15,632 17,293	11,480 11,138 12,913 13,949 11,462 19,844 16,227 18,082	108 114 98 73 109 4
Daviess De Kalb Dent Douglas Dunklin Franklin Gasconade Gentry Greene Grundy	94 102 169 117 415 1,273 204 88 3,444	97 106 179 122 461 1,321 211 95 3,680 147	104 113 189 132 497 1,386 222 98 3,929 156	7.7 6.9 5.7 8.0 4.9 5.3 2.9 6.9	11,944 10,273 12,356 9,841 12,521 15,705 14,550 12,917 16,513 13,555	12,236 10,635 13,025 10,288 14,029 16,038 14,988 14,084 17,418 14,061	13,447 11,401	51 17 36 67 8	Nonmetropolitan portion  Beaverhead Big Horn Blaine Broadwater Carbon Carter Cascade Chouteau Custer Daniels	8,641 119 123 79 43 121 19 1,241 95 174 35	9,275 126 123 79 47 127 21 1,305 110 184 40	9,776 128 128 85 52 132 200 1,383 97 196 43	5.4	14,201 14,099 10,904 11,848 13,062 15,025 12,608 15,974 17,417 14,881 15,637	15,108 14,971 10,732 11,733 14,126 15,912 14,510 16,651 20,331 15,830 18,850	15,641 14,847 10,949 12,524 14,855 16,029 13,328 17,452 17,796 16,683 20,393	36
Harrison Henry Hickory Holt Howard Howell Iron Jackson Jasper Jefferson	113 269 78 85 130 376 121 11,685 1,322 2,465	120 273 82 92 139 403 130 12,297 1,417 2,558	124 296 87 96 146 431 138 12,962 1,516 2,685	3.2 8.3 6.5 4.5 5.8 6.6 5.4 7.0 4.9	13,387 13,394 10,701 13,994 13,463 11,887 11,258 18,447 14,600 14,294	14,366 13,544 10,837 15,409 14,512 12,561 12,098 19,393 15,586 14,585	15,150 13,220 12,983 20,443 16,499 15,059	24 48 89 95 3 19 52	Dawson Deer Lodge Fallon Fergus Flathead Gallatin Garfield Glacier Golden Valley Granite	128 125 42 181 892 742 23 136 13 33	140 129 47 188 956 810 24 155 15	140 138 48 192 1,033 873 22 160 15	4 7.0 1.8 2.4 8.0 7.8 -10.1 3.3 -1.2 1.3	13,646 12,232 13,643 14,947 14,989 14,627 14,679 11,228 14,374 13,010	15,140 12,766 15,062 15,264 15,721 15,620 16,009 12,834 16,963	15,443 13,759 15,754 15,514 16,440 16,202 15,065 13,095 16,783 14,462	30 44 26 29 18 22 33 50 14 38
Johnson Knox Laclede Lafayette Lawrence Lewis Lincoln Linn Livingston McDonald  Macon	528 57 352 481 376 125 421 192 220 201	553 58 361 500 398 130 442 202 227 218	592 63 385 529 421 142 468 209 244 230	5.9 3.2 7.6 5.6	12,369 12,644 12,935 15,468 12,416 12,240 14,501 13,884 15,129 11,832 14,029	12,785 13,039 13,195 16,066 13,078 12,732 14,804 14,695 15,777 12,735	13,952 15,444 15,287 16,857	13 78 72 41 46 14	Hill Jefferson Judith Basin Lake Lewis and Clark Liberty Lincoln McCone Madison Meagher Lewis Meagher Lincoln	261 128 32 271 755 44 210 27 77	285 133 35 287 806 50 217 30 81 30	289 143 35 306 871 45 234 29 82 31	1.7 7.7 .1 6.8 8.1 -10.7 7.9 -2.6 1.8 2.0	14,757 16,023 13,931 12,902 15,880 19,343 12,029 12,126 12,861 15,056	16,679 22,139 12,356 13,831 13,201	16,257 17,316 15,679 13,897 17,534 19,851 13,231 13,960 13,506 17,137	21 10 27 42 7 2 49 41 47
Madison Maries Marion Mercer Miller Mississippi Moniteau Monroe Montgomery	132 97 384 39 272 187 170 132 166	141 103 410 41 282 192 179 132	148 106 439 44 296 213 184 139	2.8 5.1 2.8 7.3 8.0 4.9 10.8 2.8 5.2 7.8	11,887 12,223 13,847 10,355 13,106 12,972 13,802 14,502 14,565	12,610 12,627 14,831 10,982 13,508 13,411 14,513 14,792 15,236	13,232 12,963 15,826 11,855 13,902 15,133 14,874 15,707 16,480	88 96 33 105 75 49 61 35 20	Mineral Missoula Musselshell Petroleum Phillips Pondera Powder River Powell Prairie Ravaili	37 1,188 50 6 75 96 26 84 20 326	38 1,264 55 9 74 108 31 92 23 348	40 1,385 56 8 71 99 30 94 21	5.1 9.6 .9 -13.8 -3.9 -8.4 -3.9 -2.7 -9.4 8.3	11,111 15,053 12,227 11,206 14,463 15,038 12,735 12,619 14,366 13,007	13,378 17,619 14,396 17,328 15,100 13,696 17,698	11,672 16,801 13,608 15,305 13,989 15,985 14,506 13,883 16,402 13,744	24 37 43 19
Morgan New Madrid Newton Nodaway Oregon Osage Ozark Pemiscot Perry Petis	199 272 628 287 101 180 99 253 234 524	209 275 661 302 108 185 103 268 244 537	218 307 707 314 113 193 107 288 263 565	4.3 11.9 6.9 4.1 4.6 4.1 3.8 7.2 7.7 5.2	12,741 12,990 14,102 13,215 10,615 14,968 11,400 11,555 14,007 14,755	13,362 13,216 14,672 14,144 11,349 15,383 11,897 12,365 14,559 15,097	15,493 14,805 11,903 15,900 12,165 13,384 15,619 15,871	64 40 63 104 31 102 86 38 32	Richland	147 118 150 100 67 522 95 45 94	156 126 175 104 75 543 98 48 106	157 137 173 110 81 579 104 49 97	1.0 9.1 -1.3 5.7 7.1 6.5 5.2 3.7 -8.6	13,805 10,718 14,272 11,479 14,180 15,392 14,417 14,204 15,056 16,117	14,703 11,673 16,758 12,096 16,600 15,991 14,669 15,153 17,121	14,941 12,654 16,296 12,468 17,981 16,966 15,375 15,798 15,623 17,893	34 52
Phelps	485 212 1,191 272 487	511 220 1,232 285 523	537 233 1,314 303 565	5.0 6.1 6.6 6.4 8.0	13,723 13,264 20,448 12,411 11,653	12,739	13,451	2	Treasure Valley Wheatland	14 118 33	14 133 38	15 137 39	1.3 2.9	15,579 14,446 14,457	16,479 16,323	16,536 16,724	17 15

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	т	otal person	al income		Per c	apita per	sonal inc	come <sup>3</sup>		Т	otal persona	al income		Per c	apita per	sonal inc	come <sup>3</sup>
Area name	Milli	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	rs	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
Wibaux Yellowstone Park (incl. Ylwstn. Natl. Park) Nebraska	13 1,907 181 <b>27,470</b>	15 2,043 197 <b>28,720</b>	14 2,185 209 <b>30,368</b>	9 7.0 5.8 <b>5.7</b>	11,066 16,803 12,249 17,379	12,604 17,730 13,520 18,059	12,810 18,506 14,076	51 3 39	Sioux	22 98 124 15 81	19 99 121 16 82	21 103 128 16 88	9.4 4.2 5.8 3.6 6.4	14,062 15,681 18,789 17,750 11,623		13,366 16,612 19,632 19,959 12,650	91 70 20 16 92
Metropolitan portion	14,532 12,938 509	15,395 13,325 533	16,335 14,033 562	6.1 5.3 5.4	18,396 16,364	19,240 16,863	20,181 17,738 19,062	29	Thurston	86 298 127	85 309 133	87 335 142	2.6	16,741 17,907 13,550	16,870 18,487	17,467 19,703 14,918	54 19
Artelope Arthur Banner Blaine	122 7 15 13	122 6 15 12	127 7 15 14	4,4 13.0 3.3 12.7	15,382 15,331 17,426 18,857	15,413 14,422 17,894 17,827	16,321 15,864 18,077 20,600	76 81 40 12	Webster Wheeler York	77 24 253	76 26 264	80 28 284	5.1 8.1 7.9	17,992 25,450 17,551	18,094 27,706 18,321	19,162 30,050 19,601	28 1 22
Boone Box Butte Boyd Brown Buffalo	122 249 41 62 560	124 253 38 60 590	128 259 41 64 642	3.4 2.4 8.8 5.7 8.8	18,318 18,947 14,631 16,951 14,894	18,700 19,392 13,813 16,532 15,565	19,616 20,008 15,263 17,574 16,819	86 51	Nevada Metropolitan portion Nonmetropolitan portion Churchill	24,682 21,026 3,656	26,582 22,666 3,917	28,931 24,744 4,187	8.8 9.2 6.9 8.6	20,248 20,429 19,267 15,385	20,639 20,773 19,896 16,090	21,648 21,826 20,652 17,242	
Burt Butter Cass Cedar Chase Cherry Cheyenne Clay Colfax	119 139 344 138 80 98 175 131	122 144 365 139 83 89 186 131	125 156 389 148 85 100 188 135 158	6.5 6.8 2.3 11.9 1.1 3.2 5.5	15,107 16,174 16,075 13,680 18,114 15,578 18,440 18,497	15,580 16,836 16,900 13,789 19,013 14,226 19,759 18,517 16,232	15,795 19,722 18,855 16,831	15 82 18 32 66	Clark Douglas Elko Esmeralda Eureka Humboldt Lander Lincoln Lyon	14,813 701 621 27 33 240 116 69 339	16,046 763 670 34 33 262 121 72 366	17,563 804 724 39 34 275 130 72 394	9.5 5.4 8.0 12.6 2.1 5.0 7.4 .6 7.7	19,623 25,101 18,148 19,917 21,105 18,498 18,429 18,096 16,738	19,818 25,623 18,660 26,785 20,390 19,160 18,810	20,769 25,820 19,385 28,891 21,706 19,335 19,414 19,343	7 2 9 1 5 11 8 10 13
Custer	183 217 234 116 343 41 95 541	194 226 241 120 377 41 101 566	237 265 128 395 42 105	5.2 9.9 6.6 4.7 2.9	18,156 17,683 13,931 12,984 17,169 18,137 15,487 15,679	19,361 18,428 14,238 13,644 18,255 18,487 16,316 16,433		90 37 24	Mineral Nye Pershing Storey Washoe White Pine Carson City	107 289 72 47 5,925 157 850	109 307 72 50 6,313 156 909	119 326 74 53 6,856 163 982	4.0	16,662 16,008 16,637 18,479 23,113 16,696 20,910	16,352	20,777 25,529 16,980	12 17 16 6 3 15 4
Douglas Dundy Fillmore	8,347 54 155	8,841 55 152	9,404 57 159	6.4 3.1	19,987 20,922 21,814	20,933 21,734 21,504	22,055 23,118	5 3	New Hampshire Metropolitan portion Nonmetropolitan portion	22,491 14,267 8,224	23,231 14,664 8,568	24,457 15,463 8,994	5.3 5.5 5.0	20,231 20,742 19,401		21,933 22,383 21,200	
Franklin Frontier Furnas Gage Garden Garfield Gosper Grant Greeley Hali	65 48 94 380 44 34 38 14 47 795	64 44 94 380 43 35 40 14 47 850	68 48 101 404 45 36 42 13 50 893	6.7 6.3 3.5 4.1 4.5 -4.7 7.4	16,521 15,515 16,960 16,663 17,839 15,812 19,773 18,745 15,624 16,210	15,596	17,961 17,878 19,292 17,228 20,684 16,831 17,073	27 60 11 67 61	Belknap Carroli Cheshire Coos Grafton Hillsborough Merrimack Rockingham Straftord Sullivan	960 756 1,287 582 1,489 7,213 2,470 5,274 1,779 681	978 785 1,339 619 1,577 7,419 2,573 5,406 1,838 696	1,008 823 1,413 642 1,662 7,809 2,712 5,706 1,949 734	3.7 5.4 5.2 5.4 5.6	19,474 21,279 18,328 16,674 19,856 21,420 20,521 21,379 17,049 17,616	21,921 18,994 17,819 21,023 22,052 21,366 22,210 17,707	20,481 22,700 20,013 18,684 21,969 22,963 22,619 23,181 18,623 19,190	7 9 5 2 4 1
Hamilton Harlan Hayes	151 68 28	160 66 35 60	168 69 35 62	1 48	17,036 17,917 23,343 15,389	17,600 29,124	18,683 29,938	33 34 2	New Jersey Metropolitan portion	187,167 187,167	191,559 191,559	204,038 204,038		24,182 24,182	24,644	26,091 26,091	
Hitchcock Holt Holter Howard Jefferson Johnson Kearney	68 28 58 203 14 82 152 73 119	202 14 83 147 71 133	223 14 91 157 75 136	10.4 3.7 10.1 7.0 5.9 2.3	15,369 16,152 17,713 13,621 17,345 15,596 17,954	16,073 18,182 13,536 16,992 15,240 20,413	17,878 19,885 14,683 18,419 16,365 20,857	45 17 89 36 75 8	Atlantic Bergen Bufington Camden Cape May Cumberland Essex Gloucester Hudson	5,210 26,643 8,373 10,160 2,019 2,378 18,204 4,260 10,753	5,208 26,739 8,570 10,402 2,058 2,482 18,974 4,371 11,011	5,540 28,235 9,066 11,042 2,199 2,661 20,268 4,664 11,853	6.4 5.8 6.2 6.9 7.2 6.8 6.7 7.7	23,135 32,273 21,136 20,181 21,188 17,199 23,417 18,430 19,440	32,296 21,488 20,563 21,374 17,911 24,515	22,801 21,748 22,708 19,213 26,206 19,691	2 11 17 12 21 8 20
Keya Paha Kimbal Knox Lancaster Lincoln Logan Loup McPherson Madison	18 74 141 3,696 512 16 7 11 515	14 75 136 3,927 548 16 8	16 76 145 4,171 574 17 8 9 559	2.1 6.7 6.2 4.8 5.4 .2 5	17,953 18,295 14,802 17,237 15,754 18,111 10,376 19,259 15,767	14,550 18,123 16,697 18,111 11,294 17,415	18,981 15,542 18,995 17,331 19,371 11,020 17,945	69 31 83 30 58 25 93 43	Hunterdon	3,024 8,440 15,817 14,110 13,171 8,782 9,392 1,226	3,142 8,712 16,242 14,394 13,468 9,128 9,552 1,268	3,373 9,321 17,364 15,408 14,393 9,633 10,125 1,368	7.3 7.0 6.9 7.0 6.9 5.5 6.0		28,773 26,639 23,968 25,761 31,787 20,924 21,034 19,463	28,443 25,369 27,226 33,616 21,976 22,196 21,000	5 9 7 3 15 14 19
Merrick	120 102 71 128	124 108 71 135	130 107 75 137	7 5.8	14,952 18,746 16,741 16,052	16,645	20,268 17,700	47 57	Somerset Sussex Union Warren	7,854 2,812 12,657	8,099 2,849 12,971 1,919	8,659 3,043 13,769 2,053	6.9 6.8 6.2	32,535 21,406 25,645 20,488	32,968 21,463 26,303	34,580 22,581 27,910	13 6
Nuckolls Otoe Pawnee Perkins Phelps Pierce	128 96 221 57 68 189 118	225 55 62 202	98 241 59 66 206 125	67	16,638 15,583 17,249 20,257 19,502 15,111	16,130 15,808 16,672 19,265	17,560 16,890 18,462 20,696 21,121	52 65 35 10 6	New Mexico	21,602 13,578 8,024	22,872 14,402 8,470	24,452 15,431 9,022	6.9 7.1 6.5	14,213 16,057 11,902	14,781 16,682 12,382	15,458 17,410 12,971	
Platte Polk Red Willow Richardson Rock Saline	498 106 183 159 37 201	510 108 185 161 38 202	537 114 193 170 41 221	5.2 5.2 4.1 5.8 8.3	16,693 18,636 15,697 15,958 18,380 15,846	17,046 19,600 16,129 16,325 19,100	17,820 20,762 16,977 17,422 20,959 17,466	46 9 63 56 7 55	Bernalillo Catron Chaves Cibola Colfax Curry De Baca Dona Ana	8,199 29 815 204 178 553 26 1,676	8,692 31 821 216 179 604 28 1,762	9,277 31 859 23J 192 665 29 1,908	7.5 7.1 10.1	17,014 11,459 14,046 8,622 13,757 13,082 11,776 12,279	12,035 14,012 9,210 14,085 13,678 12,314 12,493	12,230 14,657 9,762 14,787 14,600 12,658	22 8 31 7 9 20 19
Sarpy	1,612 274 586 259	286 620 266	1,771 303 644 283	5.8 3.8 6.5	15,646 14,967 16,282 16,717	15,633 17,105	16,395 17,601	74 50 38	Guadalupe	681 334 40 11	729 353 42 11	773 362 44	2.5	13,974 12,058 9,755 10,724	10.318	10,870	21 28
SheridanSherman	106 54	102 56	104 60	2.0 7.6	15,859 14,606	15,542 15,229	15,910 16,449		Hidalgo	73		81		12,240	13,115	13,649	29 17

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990–92—Continued

	1	Total persor	nal income		Per c	capita pe	rsonal in	come 3			Total person	nal income		Per d	apita pe	rsonal in	come 3
Area name	Mill	ions of doll	ars	Percent change 2		Dollars		Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991–92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
Lea Lincoln Los Alamos Luna McKinley Mora Otero  Cluay Rio Arriba Roosevelt Sandoval San Juan	728 186 473 199 540 35 630 139 322 217 855 1,114	767 199 473 219 578 37 661 144 339 218 925 1,188	807 213 511 236 619 40 709 152 360 249 1,001 1,273	5.2 7.2 8.0 7.7 7.1 8.3 7.2 5.8 6.3 14.2 8.2 7.1	13,114 15,200 26,078 10,978 8,807 8,275 12,155 12,903 9,322 12,950 13,348 12,176	13,818 15,611 26,189 11,604 9,178 8,825 12,691 13,625 9,842 12,666 13,983 12,694	14,244 16,234 28,087 11,976 9,500 9,455 13,662 14,537 10,332 14,237 14,560 13,381	32 33	Metropolitan portion Nonmetropolitan portion  Alamance Alexander Alleghany Anson Ashe Avery Beaufort Bertie Bladen	76,585 31,753 1,790 408 127 318 298 204 597 253 348	79,968 33,424 1,865 421 132 331 318 218 631 269 370	86,372 35,745 1,977 454 142 345 3355 231 263 274 397	8.0 6.9 6.0 7.9 7.5 4.5 5.3 5.8 5.0 1.9 7.5	17,426 14,060 16,496 14,766 13,223 13,552 13,438 13,664 14,097 12,393 12,135	17,886 14,675 16,989 15,048 13,684 14,094 14,234 14,601 14,763 13,170 12,826	15,534 17,801 16,099 14,722 14,665 14,943 15,486 15,417 13,478 13,663	18 39 64 66 61 52 54 90 89
San Miguel Santa Fe Sierra Socorro Taos  Torrance Union Valencia  New York	255 1,803 122 159 259 111 64 573	270 1,932 130 167 277 118 65 618 412,663	290 2,067 137 177 291 127 62 666 <b>436,354</b>	7.3 6.9 5.0 5.5 5.1 7.9 -3.6 7.9	9,882 18,120 12,184 10,780 11,161 10,772 15,525 12,561 22,322	10,368 18,972 12,982 11,387 11,699 11,119 15,704 13,208	10,959 19,650 13,911 11,783 12,030 11,898 15,394 13,793	27 2 14 26 23 25 5 15	Brunswick  Buncombe Burke Cabarrus Caldwell Camden Carteret Caswell Catawba Charkokee	681 2,985 1,108 1,680 1,026 777 752 252 2,121 685 233	747 3,126 1,135 1,739 1,055 82 795 266 2,168 715 239	791 3,372 1,218 1,855 1,145 88 846 2,340 2,340 254	5.9 7.9 7.2 6.7 8.5 7.7 6.4 7.9 7.7 6.3	13,277 17,009 14,600 16,888 14,488 12,904 14,238 12,181 17,844 17,583 11,551	14,201 17,584 14,859 17,142 14,807 13,611 14,805 12,810 18,017 18,051 11,785	14,526 18,714 15,734 17,916 15,951 14,350 15,405 13,669 19,203 19,136 12,465	12 49 17 43 73 55 88 10
Metropolitan portion Nonmetropolitan portion  Albany Allegany Bronx Broome Cattaraugus Cayuga Chautaugua Chemung Chenango Cilinton	379,525 22,308 6,383 635 17,714 3,811 1,176 1,228 2,100 1,517 752 1,228	389,558 23,106 6,565 652 18,381 3,924 1,205 1,245 2,178 1,574 7775 1,261	412,129 24,225 6,900 685 19,569 4,064 1,281 1,299 2,278 1,640 821 1,313	5.1 5.5 6.5 3.6 6.3 4.3 4.6 4.2 6.0	22,969 15,090 21,814 12,561 14,714 17,966 13,929 14,897 14,796 15,922 14,517 14,248	23,527 15,519 22,384 12,694 15,328 18,486 14,161 15,049 15,331 16,545 14,883 14,620	24,808 16,183 23,559 13,328 16,381 19,127 14,950 15,712 16,083 17,231 15,728 15,263	8 62 40 21 53 46 44 30 45 51	Chowan Clay Cleveland Columbus Craven Cumberland Curituck Dare Davidson Davie	190 86 1,256 625 1,164 3,559 200 366 1,987 524	204 89 1,288 673 1,231 3,811 208 382 2,039 532	207 95 1,376 728 1,348 4,451 219 405 2,189 571	1.4 6.5 6.9 8.3 9.5 16.8 5.4 6.0 7.4 7.3	14,040 11,988 14,782 12,605 14,217 12,928 14,508 15,939 15,634 18,702	14,994 12,267 15,014 13,513 14,914 13,725 14,545 16,462 15,863 18,807	15,063 13,011 15,835 14,507 16,059 16,050 14,834 17,065 16,861 20,069	58 93 45 70 40 41 63 24 29
Columbia Cortland Delaware Dutchess Erie Essex Franklin Fulton Genesee Greene	1,104 698 659 5,619 17,586 578 607 810 1,000 706	1,117 725 674 5,673 18,352 592 635 844 1,024 720	1,178 768 703 5,894 19,250 623 679 894 1,072 759	5.5 5.9 4.3 3.9 4.9 5.3 6.8	17,523 14,225 13,944 21,618 18,151 15,501 13,001 14,927 16,626 15,724	17,788 14,750 14,215 21,739 18,901 15,763 13,387 15,565 16,932 15,868	18,695 15,531 14,801 22,424 19,798 16,595 14,147 16,561 17,617 16,360	23 49 55 11 15 37 57 38 27 41	Duplin Durham Edgecombe Forsyth Franklin Gaston Gates Graham Granville Greene	551 3,431 739 5,565 479 2,742 124 71 493 230	594 3,597 795 5,746 499 2,820 135 75 516 250	653 3,935 844 6,113 540 3,020 139 83 568 251	9.9 9.4 6.2 6.4 8.3 7.1 2.6 10.6 10.1	13,783 18,775 13,095 20,882 13,086 15,633 13,349 9,934 12,842 14,897	14,848 19,352 14,121 21,402 13,348 15,903 14,446 10,266 13,383 15,939		60 3 79 27 65 100 71 44
Hamilton Herkimer Jefferson Kings Lewis Livingston Madison Monroe Montgomery Nassau	82 931 1,595 39,735 352 994 1,118 15,350 819 40,167	87, 943, 1,679, 40,922, 370, 1,028, 1,150, 15,859, 855, 40,363	92 1,001 1,766 43,885 383 1,081 1,203 16,563 894 42,018	5.8 6.2 5.2 7.2 3.6 5.1 4.6 4.4 4.5	15,493 14,141 14,308 17,285 13,087 15,898 16,133 21,467 15,737 31,237	16,191 14,261 14,934 17,874 13,599 16,297 16,347 22,053 16,456 31,195	17,089 15,130 15,535 19,196 13,967 17,059 16,935 22,863 17,165 32,270	33 52 48 20 60 34 35 10 31	Guilford Halifax Harnett Haywood Henderson Hertford Hoke Hyde Iredell Jackson	6,949 704 851 681 1,204 260 247 74 1,497 338	7,228 752 904 718 1,255 276 267 85 1,556 358	7,722 801 988 758 1,333 291 291 87 1,678 383	6.8 6.5 9.4 5.5 6.3 9.1 2.4 7.8 7.2	19,940 12,662 12,527 14,504 17,274 11,532 10,755 13,738 16,030 12,556	20,456 13,471 13,184 15,155 17,756 12,254 11,512 15,870 16,304 13,149	21,585 14,257 14,235 15,792 18,577 12,906 12,436 16,260 17,324 13,924	78 80 48 13 94 97 35 21 84
New York           Niagara           Oneida           Onondaga           Ontario           Orange           Orleans           Oswego           Otsego           Putnam	66,077 3,691 4,071 8,999 1,774 5,683 624 1,843 906 2,013	68,033 3,842 4,176 9,195 1,846 5,870 653 1,895 940 2,038	73,257 3,992 4,369 9,581 1,896 6,240 681 2,076 997 2,131	7.7 3.9 4.6 4.2 2.7 6.3 4.3 9.6 6.1 4.6	44,426 16,698 16,215 19,157 18,606 18,405 14,862 15,065 14,940 23,892	18,821 15,355 15,326 15,434	16,625 16,345	1 26 29 13 17 16 47 36 42 5	Johnston Jones Lee Lenoir Lincoln McDowell Macon Madison Martin Mecklenburg	1,242 143 683 837 784 454 328 215 339 11,215	1,307 151 718 903 808 475 345 225 364 11,696	1,422 171 793 981 868 509 366 238 395 12,558	8.8 13.2 10.4 8.6 7.4 7.1 6.1 5.8 8.4 7.4	15,189 15,190 16,422 14,585 15,464 12,710 13,916 12,627 13,529 21,776	13,084 14,436 22,133	15,100 13,779 15,647 23,354	31 82 57 87 51 1
Queens           Rensselaer           Richmond           Rockland           St. Lawrence           Saratoga           Schenectady           Schoyler           Seneca	41,862 2,709 8,349 6,691 1,434 3,418 3,043 456 244 537	42,651 2,809 8,575 6,774 1,502 3,562 3,113 473 255 554	45,169 2,951 9,368 7,130 1,601 3,781 3,271 500 263 575	5.9 5.1 9.2 5.3 6.6 6.1 5.1 5.8 3.1	21,444 17,518 21,967 25,160 12,787 18,751 20,371 14,268 13,035 15,944	21,864 18,037 22,259 25,241 13,301 19,257 20,746 14,723 13,565 16,381	23,151 18,877 23,954 26,323 14,065 20,068 21,791 15,396 13,931 17,146	9 22 6 4 59 14 12 50 61 32	Mitchell Montgomery Moore Nash New Hanover Northampton Orslow Orange Pamilco Pasquotank	178 304 1,129 1,279 2,007 255 1,529 1,832 156 434	191 316 1,187 1,329 2,149 277 1,601 1,934 165 448	201 335 1,258 1,380 2,307 286 1,847 2,080 171 471	5.4 5.8 6.0 3.8 7.3 3.2 15.4 7.6 3.3 5.2	12,305 12,987 19,027 16,565 16,588 12,255 10,201 19,430 13,699 13,817	13,176 13,652 19,696 16,887 17,262 13,338 10,638 20,101 14,391 14,135	13,800 12,782 20,856 14,625 14,587	74 8 22 16 86 95 7 67 68
Steuben Suffolk Sulfivan Tioga Tompkins Ulster Warren Washington Wayne Westchester	1,623 29,572 1,231 828 1,443 3,021 1,074 824 1,504 28,349	1,716 30,411 1,256 863 1,490 3,153 1,096 842 1,572 29,231	1,743 31,808 1,321 882 1,548 3,275 1,164 898 1,649 30,725	1.6 4.6 5.2 2.3 3.9 6.2 6.7 4.9 5.1	16,350 22,360 17,724 15,781 15,314 18,231 18,057 13,852 16,827 32,396	17,205 22,898 17,956 16,305 15,692 18,794 18,278 14,010 17,387 33,337	17,411 23,769 18,688 16,531 16,232 19,354 19,251 14,859 18,062 34,843	28 7 24 39 43 18 19 54 25 2	Pender Perquimans Person Pitt Polk Randdlph Richmond Robeson Rockingham Rowan	382 129 445 1,671 293 1,624 578 1,185 1,283 1,676	406 141 458 1,759 306 1,659 593 1,286 1,346 1,715	444 148 496 1,890 322 1,812 628 1,418 1,405 1,831	9.4 5.2 8.2 7.4 5.2 9.2 5.9 10.2 4.4 6.8	15,173 12,967 11,244 14,879	13,497 13,444 14,921 15,854 21,102 15,240 13,176 12,088 15,510 15,284	16,413 13,936 13,148 16,160	81 42 30 4 33 83 83 92 36
WyomingYates	573 316 <b>108,339</b>	575 331 <b>113,392</b>	615 343 <b>122,117</b>	7.0 3.7 <b>7.7</b>	13,452 13,809 <b>16,284</b>	13,286 14,322 <b>16,802</b>	14,143 14,763 <b>17,863</b>	58 56	Rutherford Sampson Scotland Stanly	773 709 424 777	810 764 454 799	872 842 494 837	7.7 10.1 8.8 4.6	13,526 14,979 12,527 14,982	14,069 15,996 13,305 15,224	17,349 14,435	20 72

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	Т	otal person	al income		Per c	apita per	sonal inc	come 3		Т	otal person	al income		Per c	apita per	rsonal in	come 3
Area name	Millie	ons of dolla	ırs	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	rs	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
Stokes Surry Swain Transylvania Tyrrel Union	550 956 115 399 53 1,399	567 998 125 418 58 1,431	606 1,070 132 440 59 1,526	6.9 7.2 6.1 5.3 .3 6.6	14,729; 15,453 10,188 15,630 13,802 16,517	15,001 15,971 10,892 16,239 15,486 16,489	15,714 16,989 11,509 16,892 15,343 17,115		Clermont	2,384 536 1,520 485 695 29,945 827	2,492 564 1,567 499 702 31,105 849	2,692 614 1,651 530 742 32,639 892	8.0 8.9 5.4 6.2 5.7 4.9 5.1	15,780 15,057 14,014 13,679 14,523 21,210 15,410	14,705 22,040	16,748 14,948 14,829 15,562 23,128	63 65 57
Vance Wake Warren Washington Watauga Wayne Wilkes Wilkes Vison Yackin Yancey	538 9,057 180 193 491 1,379 890 1,057 467 190	555 9,621 189 208 501 1,446 913 1,103 475 195	595 10,425 201 218 542 1,543 948 1,170 514	6.1	13,784 21,215 10,425 13,767 13,259 13,146 14,971 15,983 15,302 12,313	14,106 21,799 10,915 14,739 13,424 13,571 15,296 16,599 15,333 12,504	14,943 22,805 11,522 15,419 14,258 14,325 15,805 17,536 16,368 13,184	77 75 47 19 34	Defiance           Delaware           Erie           Fairfield           Fayette           Franklin           Fulton           Gailla           Geauga	1,408 1,327 1,725 366 18,306 637 392 1,739	666 1,473 1,397 1,814 377 19,204 660 413 1,765	703 1,590 1,496 1,947 415 20,631 716 449 1,861	5.6 7.9 7.1 7.4 9.9 7.4 8.4 8.8 5.4	16,467 20,886 17,268 16,591 13,290 18,975 16,508 12,648 21,370	16,822 21,144 18,127 17,070 13,578 19,629 16,938 13,209	17,755 22,263 19,297 17,810 14,877 20,795 18,020 13,897	28 4 11 27 64 5
North Dakota	9,765 4,149 5,616	9,891 4,318 5,573	10,809 4,638 6,171	9.3 7.4 10.7	15,320 16,101 14,791	15,617 16,645 14,904	17,048 17,604 16,654	1 1	Greene	2,370 488 18,295	2,491 518 18,807	2,624 549 19,930	5.3 6.1 6.0	17,279 12,509 21,113	17,971 13,206 21,622	18,728 13,957 22,855	16 71 2
Adams Barnes Benson Billings Bottineau Bowman Burke Burke Cass Cavalier	44 193 93 15 132 57 50 1,018 1,791	44 180 84 17 115 58 44 1,058 1,869 90	50 199 92 17 137 62 52 1,150 2,003	13.6 10.8 8.7 3.0 19.3 6.9 16.2 8.7 7.1 25.4	14,011 15,436 13,005 13,959 16,617 15,902 16,956 16,894 17,355 15,616	14,126 14,530 12,064 14,947 14,871 16,680 15,830 17,297 17,863 15,385	16,497 16,300 13,323 14,960 18,035 18,284 19,167 18,404 18,797	34 38 49 44 18 15 6 14	Hancock Hardin Harrison Henry Highland Hocking Holmes Huron Jackson	1,173 400 193 470 440 327 368 903 361	1,213 396 199 488 463 341 383 921 384	1,305 435 215 525 509 365 417 974 406	6.9 8.9 5.7	17,905 12,844 12,048 16,146 12,282 12,774 11,174 16,010 11,930	12,688 12,452 16,695 12,703 13,140 11,487 16,095	13,956 13,502 17,842 13,671 13,693 12,348 16,887	72 78 24 77 75 85 40
Dickey Divide Dunn Eddy Emmons Foster Golden Valley Grand Forks Grant	92 42 43 45 57 66 30 1,020 34 54	92 42 44 42 58 63 28 1,059 35	103 47 50 45 71 72 32 1,123 42	11.2 13.6 13.7 7.4 23.2 13.0 12.9 6.0 20.0	15,236 14,740 10,693 15,493 11,853 16,602 14,195 14,463 9,534 16,555	15,525	17,519 17,718 12,830 15,940 15,307 18,814 16,712 15,844 12,669 17,300	23 21 50 39 43 10 28 40	Jefferson   Knox   Lake   Lawrence   Licking   Logan   Lorain   Lucas   Madison   Mahoning   Manox   Mahoning   Manox   Mano	1,194 671 4,159 764 2,056 659 4,369 8,225 518 4,246	1,227 707 4,250 804 2,162 697 4,494 8,396 539 4,433	1,295 757 4,508 864 2,326 757 4,824 8,940 593 4,627	7.1 6.1 7.4 7.6 8.5 7.3 6.5 9.9	14,901 14,086 19,262 12,327 15,955 15,532 16,080 17,785 13,951 16,029	19,485 12,879 16,539 16,178 16,400 18,172 14,232	15,623 20,450 13,688 17,627 17,322 17,436 19,371	54 6 76 29 35 31 10 61
Griggs Hettinger Kidder La Moure Logan McHenry McIntosh McKenzie McKenzie McLean Mercer Morton	45 45 76 42 89 56 87 157 164 319	42 40 70 38 81 58 88 148 167 331	53 45 87 44 88 67 99 170 181 363	26.2 11.7 24.7 16.0 8.3 13.8 13.5 15.1 8.1	13,155 13,443 14,241 14,756 13,625 14,068 13,748 15,125 16,793 13,487	12,789 12,393 13,293 13,813 12,820 15,310 14,196 14,564 17,348 14,098	16,732 14,188 16,681 16,419 14,184 17,592 16,459 17,097	27 46 29 36 47 22 35 25	Marion	939 2,237 266 649 1,590 196 10,617 199 349 1,181	959 2,300 274 650 1,643 203 11,160 197 359 1,209	1,036 2,452 293 688 1,754 217 11,690 206 385 1,305	6.6 6.9 5.9 6.8 7.2 4.7 4.8 7.2	14,595 18,205 11,539 16,400 17,040 12,649 18,492 14,013 12,544 14,373	18,321 11,823 16,365 17,464 13,177 19,354 13,903 12,760	19,080 12,506 17,221 18,488 14,227 20,202 14,427 13,473	12 82 1 36 31 19 7 70 7 68 3 79
Mountrail Nelson Oliver Pembina Pierce Ramsey Ransom Renville Richland	100 77 30 167 89 199 88 51 256	97 65 30 168 83 200 92 42 271 137	113 80 37 193 89 223 96 54 279	16.9 21.9 22.2 15.1 7.8 11.6 4.4 27.8	14,390 17,507 12,516 18,195 17,637 15,752 14,910 16,250 14,153 10,062	14,208 15,378 13,209 18,727 16,878 15,934 15,732 13,899 15,192	16,737 19,030 16,605 21,681 18,742 17,883 16,567 18,231	26 8 32 1 12 19 33 16 41	Noble Ottawa Paulding Perry Pickaway Pike Portage Preble Putnam Richland	130 721 287 374 651 282 2,170 601 540 1,995	137 731 290 378 679 304 2,239 596 535 2,009	144 763 314 403 759 333 2,384 637 577 2,085	8.4 8.4 6.7 11.8 9.5 6.5 6.9 7.8	11,512 18,010 14,012 11,814 13,480 11,560 15,195 14,965 15,952	18,247 14,258 11,889 13,878 12,298 15,511 14,713 15,657	7 19,027 5 15,604 9 12,490 8 15,082 8 13,160 1 16,304 9 15,572 7 16,733	7 13 4 55 5 83 2 62 62 62 7 44 7 56
Roiette	78 28 28 11 306 43 351 51 138	34 24 30 12 317 39 341 53 142 224	89 28 33 16 339 45 363 45 248	5.9 13.0 12.2 39.2 7.1 16.4 6.5 21.8	17,258 12,979 7,440 12,733	18,881 11,669 7,813 12,846 13,880 16,572 15,508 15,258 16,434	20,410 13,469 8,600 18,116 14,881 19,504 16,619 19,113	2 48 5 53 17 4 45 4 4 9 30 7	Ross Sandusky Scioto Seneca Shelby Stark Summit Trumbull Tuscarawas Union	921 994 992 922 745 6,178 9,488 3,888 1,221 564	963 1,016 1,035 945 769 6,355 9,786 4,039 1,240 577	1,045 1,081 1,115 1,009 818 6,742 10,373 4,253 1,346	6.4 7.8 6.7 6.3 6.1 6.0 5.3 8.5	13,263 16,041 12,336 15,411 16,542 16,790 18,395 17,069 14,509	16,252 12,898 15,81 216,878 017,188 18,826 17,648 914,609	2 17,200 3 13,750 1 16,830 5 17,830 5 18,111 6 19,820 8 18,500 9 15,73	6 37 0 74 0 42 2 25 7 21 5 8 7 18
Ward Wells Williams	864 98 316	889 91 322	955 103 341	7.5 13.3 6.0	14,956 16,877 15,049	15,536 16,130 15,391	16,61 18,516 16,393	31 13 33 37	Van Wert Vinton Warren Washington Wayne	1,993 893 1,598	473 131 2,106 935 1,640	509 140 2,268 994 1,761	6.2 7.7 6.3 7.4	15,488 11,283 17,408 14,344 15,703	11,696 17,98 1 15,010 1 15,968	6 12,20 1 18,92 0 15,83 8 16,94	2 87 6 14 4 51 8 39
Ohio Metropolitan portion Nonmetropolitan portion	190,608 161,182 29,427	197,425 167,120 30,305	209,851 177,326 32,526	6.1	17,547 18,236 14,540	18,775	19,77	3	Williams	1,940	610 1,988 333	665 2,137 358	9.1 7.5 7.2	16,186 17,112 15,103	2 17,51	6 18,73	4 15
Adams Allen Ashiand Ashtabula	1,730 684 1,413	283 1,788 703 1,448	311 1,912 755 1,540	6.9 7.5 6.4	10,657 15,751 14,386 14,137	14,421	17,350 15,53 15,25	34 1 58 9 60	Oklahoma Metropolitan portion Nonmetropolitan portion	47,580 30,821 16,759	Ī	i	6.1 7 6.5	15,111 16,45 13,14	8 17,00 7 13,60	4 17,73 3 14,43	6 7
Athens Auglaize Belmont Brown Butter Carroll	745 996 467 4,962	705 762 1,049 491 5,174 356	1,090 530 5,558	3 4.2 3 8.4	11,170 16,678 14,055 13,279 16,937 13,259	16,801 14,852 13,785 17,291	17,83 15,46 14,63	26 3 59 0 66 1 20	Adair Alfalfa Aloka Beaver Beckham Blaine	108 118 97 231 151	91 241 153	250 160	2 10.2 6 7.7 2 11.8 5 6.0 2 5.9	9,24 16,19 12,27 13,22	9 14,69 1 9,83 9 15,37 2 12,90 5 13,50	4 16,51 1 10,37 0 17,58 0 13,83 7 14,69	5 10 8 77 12 9 14 47 11 3
Champaign Clark		583 2,425			15,806 15,744	16,016 16,399	17,37 17,55		BryanCaddo		389 373	403	3 7.9			12,66	

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	1	otal person	nal income	-	Per c	apita per	sonal inc	come 3		1	Total person	al income		Per o	apita per	sonal inc	ome 3
Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991–92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
CanadianCarter	1,128 615	1,189 645	1,272 688		15,112 14,343	15,647 15,108	16,452 15,986		Josephine Klamath Lake	892 812 108	927 840 106	985 923 117	6.3 9.8 10.5	14,162 14,020 15,067	14,378 14,396 14,846	16,152	34 28 20
Cherokee Choctaw Cimarron Cleveland Coal Comanche Cotton Craig Creek Custer	440 179 69 2,579 56 1,468 102 172 799 367	468 188 71 2,700 59 1,540 96 182 848 374	499 202 72 2,880 63 1,724 104 196 909 391	7.3 .9 6.7 6.2 12.0 8.4 7.7	12,898 11,676 20,960 14,764 9,731 13,183 15,400 12,223 13,138 13,687	13,417 12,320 22,325 15,175 10,414 13,832 14,911 12,989 13,759 14,180	16,069 13,916 14,606	75 38 17 45 32	Lincoln Linn Maheur Marion Morrow Multnomah Polk Sherman	4,519 597 1,344 359 3,586 124 11,532 734 39 300	4,692 635 1,414 376 3,805 114 12,232 774 36 314	5,003 678 1,499 396 4,061 120 13,054 828 38 38	6.6 6.8 6.0 5.4 6.7 5.1 6.7 7.0 6.7 7.1	15,908 15,283 14,662 13,741 15,616 16,244 19,677 14,722 20,204 13,859	16,313 15,880 15,150 14,144 16,232 14,253 20,558 15,083 18,529 14,272	17,202 16,559 15,853 14,625 16,969 14,731 21,727 15,748 19,633 15,101	10 18 24 36 14 35 1 27 4 33
Delaware           Dewey           Ellis           Garfield           Garavin           Grady           Grant           Greer           Harmon           Harper	362 85 70 908 353 518 105 85 54 78	383 79 73 933 371 536 95 79 45 70	414 84 73 981 383 575 102 86 54	5.2 3.1 7.4 7.3 8.3 19.9	12,880 15,279 15,604 16,021 13,283 12,425 18,397 12,969 14,293 19,200	13,438 14,534 16,691 16,580 14,029 12,830 17,217 12,451 12,154 17,775	14,514 13,732 18,837 13,630 14,988	11 34 50 6 53 26	Tillamook Umatilla Union Wallowa Wasco Washington Wheeler Yamhill  Pennsylvania	344 114 345 6,302 21 1,020	360 123 359 6,625 22 1,077	382 129 379 7,150 23 1,157	6.0 6.2 5.1 5.5 7.9 4.5 7.4 <b>6.0</b>	14,513 16,362 15,865 20,020 14,763 15,472 18,884		15,839 17,782 17,041 21,145 15,780 16,701 20,642	25 7 12 2 26 17
Haskell Hughes Jackson Jefferson Johnston Kay Kingfisher Kiowa Latimer Le Flore	120 145 380 85 93 805 194 161 112 495	124 149 366 93 99 834 201 151 120 507	131 159 392 98 109 894 213 163 128 550	7.0 5.8 9.5 7.2 6.2 8.1 6.1 8.6	10,988 11,194 13,269 12,122 9,255 16,771 14,734 14,192 10,810 11,400	11,648	16,464 14,837 12,219 12,638	52 40 76 8 14 29 71 68	Metropolitan portion Nonmetropolitan portion  Adams Allegheny Armstrong Beaver Bedford Berks Blair Bradford	197,469 27,159 1,314 28,270 1,096 2,854 600 6,516 1,925 892	205,496 28,180 1,369 29,859 1,118 2,971 6,21 6,673 2,005 902	217,697 29,914 1,444 31,774 1,182 3,180 683 7,111 2,151 962	5.9 6.2 5.5 6.4 5.8 7.0 9.9 6.6 7.3 6.6	19,564 15,073 16,685 21,163 14,913 15,318 12,491 19,310 14,741 14,608	20,276 15,537 17,085 22,368 15,125 15,852 12,863 19,581 15,292 14,709	21,405 16,391 17,777 23,812 15,998 16,854 14,042 20,723 16,384 15,584	26 4 49 33 64 10 41 55
Lincoln Logan Loye McClain McCurtain McIntosh Major Marshall Mayes Murray	356 401 103 310 364 193 112 131 428 136	377 420 110 332 386 200 110 138 442 145	402 445 117 355 429 214 120 149 463 155	6.1 6.0 6.9 11.1 7.1 8.7 8.3 4.7	12,201 13,825 12,678 13,583 10,888 11,480 14,065 12,104 12,787 11,344	12,828 14,413 13,377 14,393 11,596 11,787 14,070 12,599 13,043 12,085	13,971 15,141 12,761 12,449 15,505 13,432 13,492 12,829	25 44 24 66 70 21 58 55	Bucks Butler  Cambria Cameron Carbon Centre Chester Clarion Clearfield Ciinton Countpia	12,210 2,575 2,410 92 876 1,893 9,803 572 1,125 497 924	12,489 2,682 2,522 94 905 2,001 10,314 597 1,156 514 966	13,183 2,881 2,645 101 969 2,124 10,980 634 1,230 561 1,028	5.6 7.4 4.9 7.7 7.0 6.2 6.5 6.4 9.0 6.4	22,483 16,870 14,793 15,679 15,363 15,254 25,947 13,714 14,405 13,356 14,596	22,709 17,333 15,526 16,030 15,713 15,954 26,945 14,357 14,798 13,821 15,229	18,379 16,319 17,223 16,691 16,780 28,297 15,137	5 22 42 29 35 34 2 55 46 645
Muskogee Noble Nowata Oktuskee Oklahoma Okmulgee Osage Ottawa Pawnee Payne Pitsburg Pontotoc	157 121 115 10,524 427 501 401 203 810	159 126 122 10,891 455 532 420 207 858 529	168 132 133 11,552 489 550 444 216 913	5.4 5.2 8.9 6.1 7.6 3.3 5.8 4.3 6.4	12,722 14,240 12,163 9,953 17,541 11,719 12,057 13,117 13,060 13,176	14,382 12,745 10,852 17,995 12,456 12,761 13,747 13,348 14,049 12,855 13,381	11,882 18,854 13,314 13,050 14,570 13,865	23 56 73 5 59 63 33 46 30	Crawford  Cumberland Dauphin Delaware Elk Erie Fayette Forest Franklin Futton	3,951 4,709 12,343 571 4,478 1,981 57 1,999 182 506	1,290 4,130 4,958 12,774 597 4,682 2,066 59 2,100 181	1,370 4,356 5,239 13,470 642 4,983 2,208 63 2,209 193	5.5 5.7 5.5 7.6 6.4 6.8 6.9 5.2 6.6	14,536 20,171 19,751 22,527 16,387 16,235 13,626 11,862 16,458 13,124	14,906 20,783 20,633 23,276 17,062 16,856 14,161 12,299 17,064 12,875	15,792 21,662 21,645 24,513 18,274 17,819 15,092 13,021 17,771 13,564	52 8 9 3 24 25 59 67 27 66
Pottawatomie Pushmataha Roger Mills Rogers Seminole Sequoyah Stephens Texas Tillman Tulsa	435 758 103 56 812 292 384 570 260 138 9,606	801 111 57 879 307 411 609 292 124 10,050	851 121 61 936 327 446 637 303	6.3 9.0 6.1 6.5 6.4 8.7 4.6 3.8	12,888 9,424 13,605 14,671 11,521 11,353 13,515 15,806 13,371 19,020	13,595 10,110 14,099 15,529 12,352 12,031 14,265 17,977	14,369 10,996 15,360 16,164 13,251 12,854 14,841 18,763	36 74 22 16 60 64 28 7	Greene  Huntingdon Indiana Jefferson Juniata Lackawanna Lancaster Lawrence Lebanon Lehigh	537 1,284 681 295 3,744 8,035 1,424 1,926 5,802 5,536	526 564 1,317 703 305 3,896 8,178 1,473 1,995 6,056 5,732	564 606 1,388 753 324 4,133 8,696 1,560 2,122 6,466	6.1 6.3 5.9 6.4 6.8	12,806 12,145 14,275 14,772 14,240 17,098 18,918 14,790 16,887 19,895	14,617 17,835 19,002 15,314 17,326 20,593	13,615 15,275 16,296 15,385 19,003 20,018 16,165 18,321 21,842	15 11 46 23 7
Wagoner Washington Washita Woods Woodward Oregon Metropolitan portion Nonmetropolitan portion	641 963 161 144 255 49,161 36,171 12,991	673 993 153 141 257 51,701 38,153 13,548	706 1,021 154 156 271 55,286 40,831 14,455	4.9 2.8 .6 10.9 5.3 6.9 7.0	13,342 19,945 14,037 15,861 13,446 17,201 18,119 15,075	13,815 20,404 13,375 15,750 13,654 17,714 18,687	14,259 21,107 13,449 17,571 14,312 18,605 19,619	39 2 57 10 37	Luzerne  Lycoming McKean Mercer Mifflin Monroe Montgomery Montour Northampton	1,876 673 1,827 629 1,689 20,025 345 4,558	1,933 712 1,911 643 1,695 20,814 374 4,708	6,115 2,061 755 2,029 681 1,793 21,906 410 5,025	6.7 6.6 6.0 6.2 6.0 5.8 5.2 9.5 6.7	16,851 15,794 14,229 15,087 13,603 17,443 29,470 19,403 18,397	16,158 15,049 15,729 13,839 16,802 30,381 20,906	17,107 15,949 16,618 14,616 17,110 31,747 22,742	31 51 36 62
Baker           Benton           Clackamas           Clatsop           Columbia           Crook           Curry           Deschutes           Douglas           Gilliam           Grant	218 1,153 5,541 559 591 895 205 302 1,339 1,382	228 1,192 5,842 567 636 930 221 320 1,430 1,421	239 1,271 6,255 607 668 986 244 338 1,542 1,502	4.9 6.6 7.1 7.2 5.0 6.1 10.3 5.5 7.8 5.7	14,114 16,235 19,732 16,743 15,614 14,812 14,413 15,515 17,609 14,532 16,329	14,664 16,624 20,203 16,801 16,427 15,262 15,028 16,230 17,775 14,818	15,210 17,705 21,068 17,816 17,009 15,934 16,173 18,305 15,562 17,066 16,474	31 8 3 6 13 23 21 15 5 29	Northumberland Perry  Philadelphia Pike Potter Schuylkill Snyder Somerset Sullivan Susquehanna Tioga Union	1,456 604 27,563 491 229 2,378 607 1,150 89 596 542 580	1,509 635 28,570 506 244 2,453 660 1,190 91 618 580 618	1,584 676 29,990 539 265 2,600 698 1,278 98 659 617 653	5.0 6.6 5.0 6.4 9.0 6.0 5.9	15,046 14,614 17,428 17,168 13,687 15,578 16,486 14,699 14,549 14,713 13,147 16,021	15,104 18,228 16,459 14,447 16,070 17,818 15,133 14,984 15,092	15,953 19,316 16,560 15,742 17,013 18,701 16,232 16,018 16,065	39 50 14 37 53 32 18 44 48 47 61
Harney	116 106 262 2,345 187	122 106 279 2,472 195	111	1 45	14,988 15,475 15,920 13,548	15,158 16,511 16,410	15,939	22 16 9	Venango	978 756 3,497	1,048 797 3,657	1,103 838 3,883	5.2 5.2 6.2	16,488 16,795 17,085	17,598 17,687 17,835	18,558	21 20 16

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	1	Total persor	nal income		Per c	apita per	sonal inc	come <sup>3</sup>		1	otal person	al income		Per c	apita pe	rsonal in	come 3
Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	ars	Percent change 2		Dollars		Rank i State
	1990	1991	1992	1991–92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
Wayne	636 6,260 429 6,427	651 6,630 445 6,643	691 7,030 477 6,988	6.1 6.0 7.2 5.2	15,831 16,896 15,261 18,863	15,856 17,835 15,727 19,225	16,541 19,970	1	Fall River Faulk Grant Gregory Haakon	106 52 132 83 51	108 48 138 83 51	110 52 142 88 48 76	6.1 -6.2	14,478 18,888 15,787 15,471 19,754	16,620 15,799 19,809	15,617 19,322 17,004 16,871 18,798	36
Rhode Island	19,121 17,372 1,749	19,411 17,656 1,755	20,304 18,488 1,815	4.6 4.7 3.4	19,035 18,942 20,009	19,340 19,273 20,037	20,276 20,214 20,931	***************************************	Hamlin Hand Hanson	73 84 36	74 85 35	76 79 41	3.0 -7.1 17.9	14,692 19,769 12,104		15,252 18,628 13,965	50
Bristol	1,097 3,180 1,749 10,918 2,177	1,086 3,217 1,755 11,137 2,216	1,134 3,392 1,815 11,636 2,326	4.4 5.4 3.4 4.5 5.0	22,453 19,707 20,009 18,303 19,721	22,228 19,871 20,037 18,753 19,882	23,220 20,876 20,931 19,702 20,641	1 3 2 5 4	Harding Hughes Hutchinson Hyde Jackson Jerauld	26 236 127 30 30 49 27	26 253 125 30 30 49	26 270 140 28 31 49	7 7.0 12.5 -4.4 3.7	15,402 15,931 15,407 17,807 10,708 20,426	16,948 15,399 18,062 10,672	17,291	25 30 62
South Carolina Aetropolitan portion Ionmetropolitan portion	52,855 38,636 14,218	55,130 40,304 14,827	58,410 42,606 15,803	5.9 5.7 6.6	15,101 15,878 13,330	15,484 16,240 13,745	16,212 16,947 14,515	***************************************	Jones Kingsbury Lake	27 92 167 298	26 97 174	24 99 180	-8.2 2.5	20,259 15,577 15,833	19,863 16,664 16,525	18,786 17,044 17,038	13 31
Abbeville Aiken Allendale Anderson Bamberg Barnwell Beaufort Berkeley Calhoun Charleston	287 2,091 112 2,170 178 273 1,641 1,659 169 4,958	296 2,207 120 2,227 185 285 1,698 1,733 176 5,210	321 2,391 128 2,382 203 312 1,800 1,803 184 5,466	4.9	11,984 17,160 9,522 14,906 10,575 13,382 18,848 12,806 13,217 16,759	10,193 15,210 10,933 13,765 19,030 12,992 13,708	16,063 11,939 14,796 19,596 13,240 14,184 17,947	11 41 20 1 32 25 6	Lawrence  Lincoln Lyman McCook McPherson Marshall Meade Mellette Miner Minnehaha Moody	259 61 82 50 94 306 25 52 2,266	314 273 63 82 52 92 319 23 54 2,422 124	337 296 60 92 56 96 341 22 56 2,623 116	8.5 -4.7 12.1 7.8 3.5 6.7 -3.2 3.8 8.3	14,379 16,760 16,622 14,408 15,598 19,489 13,987 11,955 15,792 18,216 17,662	17,588 17,600 14,540 16,707 19,406 14,198 10,770 16,798 19,067	18,466 20,165 14,636 10,570 18,022 20,179	14 38 39 18 55 64 22 22
Cherokee Chester Chesterfield Clarendon Colleton Darlington Dillion Dorchester Edgefield Fairfield	385 484 301 419 840 317 1,227 234 270	396 502 318 436 893 334 1,282 248 276	632 428 557 336 465 957 356 1,314 264 297	7.3 8.2 11.0 5.7 6.8 7.1 6.5 2.5 6.4 7.8	11,942 12,536 10,564 12,133 13,538 10,881 14,648 12,702 12,111	12,162 12,849 11,038 12,391 14,236 11,430 14,805 13,385 12,269	13,075 15,034 12,086 14,966 14,156 13,270	31	Pennington Perkins Potter Roberts Sanborn Shannon Spink Starley Sully	1,248 73, 56 128 48 60 161 40	1,348 75 54 125 47 65 165 165	1,436 76 59 137 49 72 171 41 53	6.5 1.9 9.2 9.9 3.8 9.6 3.6 .9	15,279 18,828 17,678 12,942 17,041 6,001 20,265 16,443 31,601	16,102 19,695 16,991 12,825 16,821 6,366 20,842 16,419 32,265	16,896 20,304 18,901 14,214 17,568 6,826 21,720 16,536 33,851	3 1 5 2 6 6
Florence Georgatown Greenville Greenwood Hampton Horry Jasper Kershaw Lancaster Laurens	1,696 673 5,625 884 219 2,200 179 660 753 826	1,795 702 5,831 912 2231 2,316 185 771 877	1,920 746 6,084 971 237 2,443 201 713 819 941	7.0 6.3 4.3 6.4 6.6 5.5 8.7 4.1 6.2 7.3	14,786 14,427 17,492 14,836 12,036 15,182 11,563 15,143 13,775 14,181	14,681 17,980 15,168 12,160 15,524 11,810 15,503	16,192 15,260 18,574 16,029 12,855 16,040 12,772 15,870 14,817	3 13 36 12 37 15	Tripp Turner Union Walworth Yankton Ziebach Tennessee	61 105 152 166 95 298 27 77,786	67 108 150 182 98 320 28 <b>81,831</b>	108 168 168 195 104 347 27	2.0 .2 12.0 7.3 6.0 8.4 -4.8	7,292 15,238 17,669 16,291 15,814 15,415 12,042 <b>15,903</b>	17,624 16,759	19,840 18,704 18,079 17,447 12,580	1 1 2 2 5 5
Lee Lexington McCormick Marion Marthoro Marthoro Newberry Oconee Orangeburg Pickens Richland	187 2,950 88 385 305 436 901 1,076 1,314 4,948	202 3,091 92 412 343 456 919 1,111 1,357 5,132	211 3,261 100 440 353 483 954 1,196 1,423 5,455	4.6 5.5 8.2 6.9 3.1 5.9 3.8 7.7 4.9 6.3	10,124 17,463 9,964 11,362 10,373 13,127 15,603 12,657 13,913 17,266	10,884 17,830 10,367 11,985 11,577 13,641 15,757 12,908 14,009 17,621	11,286 18,338 11,082 12,727 11,924 14,447 16,182 13,773 14,425 18,553	44 5 45 38 42 22 10 28 23 4	Metropolitan portion Nonmetropolitan portion  Anderson Bedford Benton Bledsoe Blount Bradley Campbell Cannon Carroll	57,401 20,384 1,111 442 189 103 1,308 1,125 373 137 137 350	1,203 458 208 105 1,416 1,173 388 146 370	65,458 23,359 1,311 495 210 113 1,546 1,281 422 161 405	8.3 9.1 8.9 8.1 1.1 8.0 9.2 9.2 8.8 10.0 9.4	17,354 12,873 16,244 14,461 12,989 10,587 15,156 15,210 10,604 13,001 12,685	18,031 13,371 17,366 14,738 14,024 10,791 16,015 15,648 10,969 13,746 13,370	19,227 14,411 18,587 15,589 13,945 11,586 17,098 16,866 11,846 14,944 14,643	7 20 21 55 55 55 56 88 9 9 11 33 44 33 44
Saluda Spartanburg Spartanburg Union Williamsburg York South Dakota Metropolitan portion	217 3,514 1,243 361 391 2,229 10,888 3,772	1,309 373 415 2,308	240 3,932 1,388 406 445 2,448 <b>12,183</b> <b>4,35</b> 5	7.2 6.0 8.8 7.1 6.0	13,259 15,447 12,081 11,918 10,632 16,848 15,628 17,032	15,921 12,523 12,258 11,232 17,073	16,887 13,171 13,289 12,004 17,838 17,198 18,869	8 33 30 40 7	Carter	600 370 131 291 82 329 637 178	636 388 137 308 87 354 664 192	686 425 151 340 94 396 726 215	9.3 10.3 10.3 7.9 11.7 9.2	11,636 13,541 10,171 11,115 11,292 11,261 15,722 13,330	13,863 10,663 11,575 12,119 12,095 16,166	14,743 11,673 12,559 13,016 13,412 17,429	3 4 3 8 7 6 6 5 5
Aurora Beadle Bennet Brown Brown Brown Brown Brown Brown Brown Brown Brown Brown Brown Brown Brule Buffalo Butte Campbell Brown	7,115 42 293 39 100 337 597 80 19 99	7,384 42 297 38 105 367 623 80 21 105	7,828 46 313 38 118 398 662 85	6.0 9.7 5.2 -1.2 12.6 8.5 6.3 5.7 .7 6.5	14,974 13,603 16,032 12,201 14,165 13,342 16,818 14,580 10,713 12,520 15,359	15,534 13,752 16,484 12,205 14,934 14,470 17,526 14,435 11,682 12,845	16,390 15,257 17,427 12,363 16,978 15,491 18,641 15,135 11,698	49 28 59 34 46 16 51 60 57	Cumberland Davidson Decatur  Dekalb Dickson Dyer Fayette Fentress Franklin Gibson Giles	431 10,070 116 192 498 517 316 151 455 641 365	446 10,628 122 205 521 525 340 167 475 672 392	486 11,533 132 224 569 568 370 184 515 742 426	9.1 8.5 8.9 9.4 9.1 8.2 8.8 10.1 8.5 10.3 8.8	12,324 19,700 11,086 13,294 14,108 14,796 12,343 10,297 13,085 13,816 14,135	12,363 20,721 11,639 14,138 14,528 15,059 13,190 11,322 13,518 14,511	13,234 22,273 12,739 15,320 15,583 16,287 14,233 12,345 14,586 15,986	6 3 7 3 3 2 3 4 4 5 6 4 5 6 4 5 6 4 5 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7
Charles Mix	126 78 167 346 41 91 281 106	131 79 178 373 45	143 84 195 403 47 103 321 106	9.5 6.5 9.3 7.9 5.8	13,864 17,773 12,667 15,187 9,768 14,818 16,033 15,262 13,234 9,769	14,359 18,330 13,575 16,278 10,667 15,683 16,912 14,859 13,217	15,469 19,379 14,802 17,343 11,126 16,219 18,369 15,570	47 9 52 29 61 40 19 45 55	Grainger Greene Grundy Hamblen Hamilton Hancock Hardeman Hardin Hawkins Haywood	181 732 137 721 5,268 56, 271 260 260 298 202 238 270	191 750 146 755 5,385 61 290 277 627 263 280 394	212 794 156 824 5,730 68 312 303 679 294 307	10.9 5.8 6.9 9.1 6.4 12.5 7.4 9.3 8.3	10,533 13,073 10,250 14,230 18,443 8,344 11,579 11,466 13,230 12,278	10,908 13,266 10,877 14,865 18,731 9,147 12,339 11,929 13,834 13,527	11,910 13,867 11,590 15,948 19,850 10,150 13,111	7 8 8 8 8 8 1
Douglas Edmunds	49 74		56	4.9 9.3	13,242 17,096		15,468 18,122		Henderson Henry	270 381	280 394	307 431	9.4 9.4	12,318 13,632	12,810 14,051	13,861 15,221	1 !

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990–92—Continued

	1	Total person	nal income		Per o	apita per	rsonal inc	come 3	1		Fotal persor	nal income	1	Pero	apita per	sonal inc	come <sup>3</sup>
Area name	<u> </u>	ions of doll		Percent		Dollars		Rank in	Area name		ions of dolla		Percent		Dollars		Rank in
	1990	1991	1992	change <sup>2</sup> 1991–92	1990	1991	1992	State 1992		1990	1991	1992	change <sup>2</sup>	1990	1991	1992	State 1992
Hickman Houston Humphreys Jackson Jefferson Johnson Knox Lake Lauderdale Lawrence	197 75 199 102 431 132 5,937 75 274 465	208 80 209 107 453 142 6,323 74 286 508	224 84 222 116 490 152 6,813 87 322 553	12.4 8.8	11,667 10,672 12,582 10,907 13,028 9,582 17,634 10,514 11,642 13,134	12,057 11,369 13,213 11,663 13,345 9,482 18,491 10,498 12,181 14,139	12,728 11,640 14,022 12,791 14,100 9,966 19,601 11,911 13,611 15,177	72 89 50 70 49 95 5 83 58 34	Cameron           Camp           Carson           Cass           Castro           Chambers           Cherokee           Childress           Clay           Cochran	2,512 161 106 396 160 302 555 91 149 66	2,680 172 109 419 163 326 581 88 146 64	2,968 189 123 445 166 338 627 102 158 75	10.8 10.1 12.8 6.3 1.9 3.5 7.9 15.9 8.1	9,590 16,255 16,193 13,204 17,796 15,015 13,552 15,267 14,931 14,991		10,649 18,663 19,039 14,851 19,008 16,433 15,558 16,535 16,361 17,873	242 45 38 175 40 100 144 97 103 62
Lewis Lincoln Loudon McMinn McNairy Macon Madison Marion Marshall Maury	101 386 457 574 283 189 1,206 315 331 802	110 389 478 585 292 201 1,267 330 356 887	124 425 518 627 316 223 1,391 351 398	12.2 9.4 8.3 7.2 8.1 10.6 9.8 6.4 11.7	10,918 13,689 14,530 13,535 12,572 11,864 15,418 12,640 15,239 14,496	11,475 13,727 14,818 13,663 12,908 12,492 16,032 13,126 15,844 15,257	17,340	75 37 30 47 51 57 12 53 13	Coke Coleman Collin Collin Collingsworth Colorado Comal Comanche Concho Cooke Coryell	44 123 6,231 57 280 933 203 41 454 622	47 123 6,606 52 297 981 195 37 468 604	50 135 7,087 61 304 1,070 211 46 499 705	6.2 9.8 7.3 18.6 2.3 9.1 8.4 22.9 6.6 16.7	12,987 12,717 23,372 15,957 15,271 17,963 15,152 13,543 14,649 9,670		16,656 19,393 16,008 15,230 16,116	167 196 6 66 91 34 121 158 114 238
Meigs Monroe Montgomery Moore Morgan Obion Overton Perry Pickett Polk	95 340 1,318 59 173 486 186 75 50 160	98 361 1,413 62 187 482 195 78 55 169	106 395 1,635 67 207 533 212 86 59 183	8.3 9.5 15.7 7.3 10.3 10.6 8.7 9.6 7.1 8.0	11,709 11,108 12,976 12,613 9,974 15,309 10,510 11,270 11,050 11,694	11,852 11,685 13,704 12,944 10,763 15,199 10,992 11,612 12,169 12,291	12,611 12,602 14,868 13,659 11,675 16,889 11,920 12,579 12,970 13,152	73 74 39 56 87 16 82 76 68 64	Cottle	34 60 59 111 32 107 39,390 224 312 67	33 63 63 88 30 123 41,802 180 331 70	37 64 66 108 32 129 44,812 225 336 75	10.6 2.1 6.1 22.9 6.5 5.1 7.2 24.5 1.7	15,300 12,987 14,486 15,136 9,394 19,596 21,172 15,658 16,253 13,936	15,630 13,305 15,159 12,112 9,244 22,201 22,097 12,737 17,587 14,665	17,793 13,823 16,289 14,990 9,981 23,190 23,420 15,967 17,910 16,072	63 209 105 169 245 10 8 124 61
Putnam Rhea Roane Robertson Rutherford Scott Sequatchie Sevier Shelby Smith	746 299 674 592 1,909 197 105 750 15,460 193	784 305 710 623 2,047 206 113 779 16,118 203	851 330 770 687 2,301 224 122 861 17,274 219	8.5 7.9 8.5 10.4 12.4 8.6 7.3 10.5 7.2 7.8	14,446 12,265 14,274 14,202 15,948 10,706 11,784 14,612 18,671 13,607	15,011 12,354 14,874 14,584 16,492 11,095 12,575 14,671 19,281 14,185	16,000 13,040 16,016 15,714 17,875 11,888 13,245 15,749 20,447 15,210	22 66 21 27 8 85 60 26 3	Denton De Witt Dickens Dimmit Donley Duval Eastland Ector Edwards Ellis	5,092 265 37 86 62 119 236 1,664 27 1,322	5,354 275 35 92 62 123 245 1,761 29 1,406	5,781 295 38 97 67 139 260 1,820 31	8.0 7.2 8.2 5.8 6.5 12.7 6.2 3.3 6.5 10.1	18,443 14,094 14,615 8,291 16,775 9,272 12,832 14,007 12,031 15,483	8,593 17,708 9,643 13,448 14,600 12,985	19,614 16,168 15,720 9,213 19,020 10,902 14,561 14,878 12,614 17,577	28 111 135 249 39 239 192 173 228 68
Stewart Sullwan Sumner Tipton Trousdale Unicoi Union Van Buren Warren Washington	111 2,348 1,688 507 65 220 136 45 431 1,427	119 2,458 1,766 543 68 230 146 46 446 1,502	127 2,610 1,922 590 74 249 163 50 486 1,633	6.5 6.2 8.9 8.7 9.3 7.9 11.4 7.6 8.9 8.7	11,697 16,321 16,270 13,393 10,955 13,313 9,915 9,318 13,020 15,405	12,371 16,956 16,737 14,090 11,458 13,926 10,473 9,421 13,344 15,985	12,524 17,794 17,807 15,044 12,491 14,808 11,579 10,157 14,510 17,199	78 10 9 36 79 40 92 93 46 14	El Paso	6,863 436 210 346 323 73 149 34 4,386	7,124 435 228 360 344 60 144 29 4,778	7,854 472 239 387 369 74 145 33 5,188	10.2 8.5 4.7 7.7 7.1 23.7 1.0 14.7 8.6 8.5	11,508 15,547 11,859 13,962 16,137 15,234 17,616 18,874 19,204 14,084	15,374 13,063 14,754 17,360 13,020	12,497 16,587 13,652 15,983 18,411 16,414 17,186 19,831 20,283 15,572	230 93 212 122 50 101 75 26 23 143
Wayne Weakley White Williamson Wilson Taxas	149 414 238 1,900 1,100 285,497	162 427 249 2,089 1,158 <b>302,627</b> <b>262,586</b>	182 471 271 2,318 1,294 326,016 283,066	12.6 10.4 8.9 11.0 11.7 <b>7.7</b>	10,641 12,931 11,836 23,221 16,174 16,747	11,430 13,341 12,250 24,524 16,618 17,440	18,437	81 42 62 1 7	Freestone Frio Gaines Galveston Garza Gillespie	212 141 195 3,787 62 272	225 149 168 4,023 60 297	244 162 202 4,317 72 318	8.3 9.0 20.1 7.3 18.2 7.3	13,403 10,379 13,841 17,344 12,145 15,822	14,329 10,289 11,836 18,032 12,014 17,064	15,609 10,661 14,141 18,928 14,416 17,972	140 241 201 42 194 59
Metropolitan portion Nonmetropolitan portion  Andrews Angelina Aransas Archer Armstrong Atlascosa Austin Balley Bandera	246,922 38,575 558 197 1,027 257 129 32 358 320 116 168	202,586 40,041 580 201 1,096 276 128 33 372 328 120 178	283,066 42,951 624 215 1,165 293 139 38 405 345 119	7.8 7.3 7.6 7.2 6.3 6.2 9.1 14.0 8.6 5.4	17,353 13,690 11,643 13,763 14,666 14,409 16,234 15,869 11,717 16,067 16,565 15,813		15,110 13,023 14,747 16,181 15,323 18,090 19,436 12,853 16,654	221 179 110 154 56 33 224 92 67 83	Glasscock Goliad Gonzales Gray Grayson Gregg Grimes Guadalupe Hale Hall Hamilton Hansford	27 76 231 419 1,527 1,815 239 910 513 61 117 141	24 81 247 430 1,582 1,903 245 965 500 51 125 148	30, 86, 271, 460, 1,656, 2,040, 260, 1,051, 518, 59, 135, 161,	27.4 5.8 9.6 7.0 4.7 7.2 6.1 9.0 3.6 15.0 8.7	18,492 12,657 13,488 17,631 16,073 17,272 12,663 13,994 14,796 15,625 15,160 24,175	18,288 16,578 17,801 12,843 14,671 14,398 13,218 16,565	17,418 18,900 13,432 15,783 14,721 15,437 18,110	19 200 127 27 69 43 217 129 180 148 555 3
Bastrop Baylor Bee Bel Belanco Borden Bosque Brazoria	499 71 290 2,676 18,553 98 17 216 1,271 3,243	533 68 304 2,715 19,683 105 13 217 1,305 3,464	580 74 317 3,087 21,365 111 16 232 1,378 3,604	8.8 9.5 4.2 13.7 8.5 6.4 23.0 6.7 5.6 4.0	13,053 16,168 11,599 13,982 15,618 16,381 20,834 14,260 15,529 16,837	13,795 16,016 12,051 14,338 16,311 16,722 17,605 14,414 15,935 17,402	14,662 17,758 12,823 16,196 17,326 16,688 22,579 15,262 16,751	185 64 226 109 70 90 12 156 88 65	Hardeman	57,080 789 99 105 879 63 776 3,487	76 625 61,644 822 105 91 949 70 808 3,771	82 674 66,265 877 112 108 1,041 73 874 4,126	8.5 7.9 7.5 6.7 6.8 17.7 9.7 4.4 8.2 9.4	15,453 13,870 20,140 13,731 27,303 15,583 13,361 16,990 13,245 9,008	15,276 14,740 21,217 14,405 28,987 13,705 14,177 19,039 13,705 9,386	16,535 15,491 22,298 15,346 30,630 16,240 15,213 20,958 14,615 9,802	98 146 14 153 2 108 159 20 190 246
Brazos Brewster Briscoe Brooks Brown Burleson Burlet Caldwell Calhoun Callahan	1,522 114 37 77 448 179 351 313 262 154	1,617 114 33 81 464 190 375 330 273 160	1,743 119 37 89 496 207 393 360 293 173	7.7 4.4 11.1 9.4 6.8 8.5 4.8 9.2 7.3 8.4	12,481 13,191 19,237 9,453 13,068 13,122 15,511 11,897 13,724 13,109	13,173 13,431 17,838 10,052 13,465 13,929 16,501 12,441 14,038 13,551	14,831 17,040 13,423	208 210 30 240 193 176 81 218 191 189	Hill Hockley Hood Hopkins Houston Howard Hudspeth Hutchinson	357 310 517 441 304 484 28 955 430	379 326 556 447 316 492 22 1,000 457	407 361 606 498 335 515 26 1,072 469	7.2 10.9 8.9 11.4 6.0 4.8 18.6 7.2 2.7	13,111 12,810 17,884 15,326 14,243 15,031 9,559 14,843 16,835	18,448 15,477 14,828 15,302 7,438 15,628	16,024 8,684 16,509	171 181 32 72 134 119 251 99 48

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

		Total person		1			sonal inc		reisonal moonie by ood		otal persona			Dos -	apita per	ennel in a	nome 3
A		ions of dolla		Percent	POI C	·	SUII III III	Rank in	A				Percent	reit	<u> </u>	SOLIAL IIIC	Rank in
Area name	1990	1991	1992	change <sup>2</sup>	1990	Dollars 1991	1992	State 1992	Area name	1990	ons of dolla	1992	change <sup>2</sup> 1991–92	1990	Dollars 1991	1992	State 1992
leine							-		Cablaiahaa	1990					-		220
Irion	26 92 193	29 97 213	30 102 218	4.7 5.3 2.3	16,242 13,219 14,859	18,139 14,391 16,613	18,543 15,105 16,835	47 163 85	Schleicher Scurry Shackelford	256	37 255 56	40 274 58	6.9 7.4 4.5	11,850 13,741 16,099	12,280 13,859 17,063	13,061 14,660 18,016	186 58
Jasper	412	441	481	9.0	13,278	14,184	15,366	150	Shelby	53 294	309	341	10.2	13,378	14,047	15,646	136
Jeff Davis Jefterson	27 4,024	28 4.313	29 4.644	2.4 7.7	13,832 16,814	14,784 17,864	15,105 19,089	164 37	Sherman	88 2,560	97 2,685	103 2,880	5.3 7.3	31,174 16,906	34,234 17,532	36,822 18,648	1 46
Jim Hogg Jim Wells	58 436	64	68 497	6.9 6.4	11,445 11,589	12,632 12,273	13,485 12,998	222	Somervell	79 215	86 240	92 270	7.0 12,7	15,034 5,261	16,244 5,592	16,586 6,015	94 254
Johnson	1,450 225	1,501 210	1,619 235 166	7.9 12.0	14,913 13,720	15,249 13,027	16,159 14,977	170	StephensSterling	122 15	127 17	135 20	6.6 17.2	13,664 10,188	14,686 11,502	15,764 12,964	132 223
KarnesKaufman	147 767 288	156 806 311	166 869 338	6.7 7.9 8.6	11,818 14,617 19,638	12,680 15,021 20,386	13,645 15,976 21,333	123	Stonewall	34 58	33 65	36 66	9.8 2.2	17,081 14,001	16,353 14,973	18,072 15,591	57 141
Kendall	9	101	10	1.4	20,590	23,660	ĺ		Swisher Tarrant	167 22,527	177 23,587	181 25,351	2.6 7.5	20,727 19,149	22,209 19,617	21,872 20,778	17 21
Kent	13 652 54	12 687	14	17.5 6.2	12,437 17,951	12,564 18,796	15,004	168	Taylor	1,871	1,947	2,081	6.9 4.9	15,658 16,387	16,438 17,208	17,263 18,434	71 49
Kimble	6	687 58 6	730 63 6	8.2 -9.5	13,067 15,932	14,063 19,697	17,195	157 74	Terrell	23 181 46	24 182 40	25 200 43	10.2 7.3	13,737	13,888 22,098	15,417 24,378	149 5
KinneyKleberg	28 350	32 389 70	34 390 76	6.4 .3 8.0	9,091 11,627	10,126 12,978	12,845	243 225	Titus	366 1,513	386 1,582	418 1,684	8.3 6.5	15,213 15,401	15,980 16,151	17,132 16,993	80 84
KnoxLamar	73 648	673	730	8.4	14,972 14,724	14,740 15,331	16,585		Travis	10,641	11,289	12,307 160	9.0 7.7	18,355 12,550	18,951 13,009	20,072	24 206
Lamb	238	226	243		15,909	15,228			Tyler Upshur	215 408	233 440	248 475	6.4 8.0	12,928 12,997	13,823 13,734	13,942 14,674	207 183
La SalleLa Salle Lavaca	177 55 277	184 58 289	200 64 309	8.7 9.6 7.1	13,110 10,333 14,881	13,656 10,758 15,510	14,670 11,773 16,790	234	Upton	60	60		9.0	13,732	14,004	15,632	137
Lee	171 175	183 189	201 204	10.2 8.1	13,359 13,858	14,300 14,747		142	Val Verde	277 391	291 424	65 309 454	6.3 7.2	11,862 10,111	12,326 10,615	12,774 11,167	227 236
Liberty	728 279	787	847 315	7.6	13,769	14,648 14,337		147	Van Zandt Victoria	512 1,223	538 1,327	577 1,415	7.3 6.7	13,476 16,399	17,535	14,864 18,371	174 51
Lipscomb Live Oak	58 112	298 57 125	60 140	6.5 11.9	18,713 11,748	18,357 12,841	19,970	25	WalkerWaller	576 325	588 347	626 375	6.4 8.1	11,320 13,884	15,044	11,881 15,733	232 133
Llano	187	199	210		16,133	17,141	17,969	60	Ward	178 456	184 474	183 503	6.1	13,661 17,456		14,647 18,962	187 41
Lubbock	3 3,521	3,626 90	3,860		26,589 15,801	30,772 16,181	17,185	76	Webb	1,208	1,356	1,542		8,972		10,387	244
Lynn McCulloch	111 116	121	116 130	7.2	16,507 13,303	13,375 14,625	15,851	126	Wharton	595 96 1,977	614 101	640 106 2,192	4.4 4.9 6.4	14,924 16,553 16,180	15,461 17,810 17,042	16,055 19,216 18,204	118 36 53
McLennan	2,776 15 145	17	3,117 18		14,648 18,896 13,299	15,289 21,485 13,895	21,952	16	Wichita Wilbarger Willacy	231 135	2,060 219 149	2,192 237 170	8.7 14.1	15,348 7,615	14,781	16,293 9,299	104 248
Madison	120 78	126	167 135 69	9.1 7.3 12.0	12,061 15,752	12,679 12,937		214	Williamson	2,180 293	2,370 311	2,625 339	10.8	15,501 12,858	16,183	17,146 14,278	79 197
Mason	50	52	55		14,753	15,604			WinklerWise	104 497	109 505	114 549	5.1 8.8	12,171	12,676 14,279	13,522 15,350	215 152
Matagorda Maverick	534 254	595 279	593 312	12.1	14,516 6,900	15,791 7,192	15,622 7,687		Wood	411	429	465	8.4	13,986		15,620	139
Medina Menard	341 28 2,223	364 30	390 33	1 74	12,426 12,428	13,568	13,708	211 177	Yoakum Young	124 300	129 308 79	147 330 86	14.4 7.1	14,204 16,651	14,773 17,319	16,720 18,747	89 44
Milam	314	2,417 337 66	2,550 362 72	12.0 5.5 7.6 9.7	20,828 13,695	14,789	15,836	128	ZapataZavala	72 86	79 93	86 100	9.4 7.0	7,727 7,054	8,248 7,571	8,743 8,094	250 252
Mills	66 110 238	105 249	115	9.3	14,546 13,824	13,659	15,028	166	Utah	24,320	26,076	28,206		14,063		15,573	
Montague Montgomery	3,174		269 3,730		13,838 17,235	14,537 17,810	15,772 18,313		Metropolitan portion Nonmetropolitan portion	19,444 4,876	20,910 5,166	22,615 5,591	8.2 8.2	14,500 12,554		16,117 13,703	
Moore	274 172	295 185	303 196	2.9 6.1	15,403 13,105	16,337 14,116		87 161	Beaver Box Elder	60 516	61 531	65 564	6.2 6.2	12,503 14,110		13,265 15,043	
Motley Nacogdoches	172 23 722 565 137	185 23 755 598	23 815	1.1 8.0	15,353 13,179	15,561 13,768	16,150 14,890	113	Cache	869 286	922 294	996 314	8.1	12,351 14,202	12,851 14,558	13,610	12
Navarro Newton		149	646 161	8.5		15,055 11,067		2 231	Daggett Davis	2,621	2.790	10 2,998		12,303 13,875	12,185 14,371	13,155 14,994	
Notan	4,440 4,440	4,756	245 5,118	7.6	13,762 15,213	16,034	15,199 17,013	3 82	Duchesne Emery	144 124 47	153 129 48	171 138	11.4	11,449 11,993	12,414	13,504	13
OchittreeOldham	169 47	4,756 156 52	173 52	11.0	18,544 20,871	17,539 23,583	19,533 23,200	31 9	Garfield	47 81	48 84	138 51 95	6.6 13.8	11,982 12,200	12,039 12,448		22 14
Orange Palo Pinto	1,144 347	1 357	1,336 381	7.9 6.9	14,196 13,868				IronJuab	232 64	241 69	266 75	10.1 7.8	11,105 11,027	11,333 11,753	12,154 12,556	25 23
Panola	288 1,033	294 1,080	217	2 <b>1</b> 6.1	13,075 15,827	13,355 16,254	14,130	202	Kane	l 64	l 66	72 150	8.7	12,295	12,910	13,788	11
Parmer Pecos	201 148	221 156	1,164 224 165	1.1 5.9	20,343	22,321	22,461	13 235	Morgan	139 71 13	75 13	81	8.3 5.9	12,786	13,365 10,437	14,022	9
Polk Potter	425 1,462	450 1,564 63	1,713	9.6	13,767 14,942	14,092 15,847	14,63	5 188 7 77	Rich	11,420	26	27 13,291	3.5 8.4	12,071 15,668	15,439	15,859	4
Presidio Rains	1,462 59 87	63 91	96	4.5 7.6	8,711 12,903	9,545 13,310	9,648	247 1 204	San Juan Sanpete	103 174	107	123 198	14.4	8,132 10,694	8,839	9,609	29
Randali	1,580	1,648	1,769	7.3	17,618	18,207	19,252	2 35	Sevier	183	193	205	6.0	11,852	12,405	12.948	20
Real	29	54 32 187	51 35 202 184	-5.1 8.9 8.2 8.9 1.3	10,922 12,167	12,071 13,436 13,323	11,129	195	Summit	348 357	377	416 408	8.2	13,381	13,910		8 (
Red River Reeves Refugio	164	169 140	184 142	8.9	12,761 10,393 15,810	10,765	5  11,830	233	Uintah	3,015	3,313	277 3,590 149	8.0 8.4	10,749	12,314	13,052	18
Roberts	19	140 20 197	214	II 4.6	18,402	19,705	20,30	8 22	Wasatch	582	640	701	9.5	12,451	12,236	12,660	21
Rockwall	49 29 182 164 125 19 190 558	589 154	637	7] 8.3	21,533	21,647	21,993	3 15	Wayne	2,388		2,736	11.9	10,494 15,049	10,757 15,803	12,441 16,616	
Rusk	639	1	i i	6.1	14,602	15,154	16,110	0 115	Vermont Metropolitan portion	9,846 3,359		10,73 3,65		17,444 18,907			
Sabine San Augustine	125 96 191	663 132 102 199	142 110	7.8	13,095	13,660	14,78	1 178 5 205	Nonmetropolitan portion	6,487	6,629	7,08	6.9	16,772	17,076	18,16	í
San Patricio	697	7 757	l 799	9 5.6	11,848	11,856 12,689	13,18	6 219	AddisonBennington	514 661	533 671	57: 71-		15,519 18,437		16,882 19,988	
San Saba	75	77	80	11.6	13,982	14,869	15,35	8 151		1		}				ł	

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	1	otal person	al income		Per c	apita per	sonal inc	come <sup>3</sup>		Т	otal person	al income		Per c	apita per	sonal inc	come 3
Area name	Milli	ions of dolla	ars	Percent change 2		Dollars		Rank in State	Area name	Milli	ons of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991-92	1990	1991	1992	1992
Caledonia Chittenden Essex Franklin Grand Isle Lamoille Orange Orleans	409 2,661 74 602 96 335 387 336	421 2,731 77 618 100 347 390 346	459 2,876 83 670 106 374 419 373	9.0 5.3 7.8 8.3 6.8 7.8 7.4 7.6	14,615 20,151 11,524 14,962 17,873 16,890 14,694 13,919 16,502	14,958 20,510 11,983 15,127 17,988 17,093 14,680 14,232 16,990	16,236 21,430 12,646 16,171 18,919 18,227 15,627 15,226	14 11 5 7 12 13	Independent Cities:  Alexandria	3,387 2,595 2,027 2,648 3,878 1,534 4,680 1,759	3,499 2,756 2,156 2,769 4,011 1,607 4,743 1,804	3,706 2,940 2,268 2,949 4,267 1,695 5,037 1,937	6.7 5.2 6.5 6.4	30,442 16,914 15,119 15,501 14,851 14,778 23,012 18,200	31,095 17,324 15,896 16,109 15,869 15,506 23,385 18,563	32,761 17,712 16,551 16,632 16,815 16,237 24,902 20,024	49 47 45 55 5
Rutland Washington Windham Windsor	969 762 1,013	980 778 1,025	1,125 1,038 842 1,086	8.3 5.9	17,592 18,295 18,717	17,770 18,772 18,890	18,729 20,236 19,977	6 2 4	Roanoke	830 7,495	7,890	915 8,429	4.7	15,867 18,928	16,571 19,508	17,182	41
Virginia Metropolitan portion Nonmetropolitan portion	121,397 100,583 20,813	126,206 104,820 21,386	133,534 110,959 22,575	5.8 5.9 5.6	19,543 20,979 14,685	20,071 21,568 14,976	20,883 22,396 15,677		Albemarle + Charlottesville	2,189	2,293	2,411	5.1	20,124	21,015	22,128	11
Accomack Amelia Amherst Appomattox Arlington Bath Bland Botetourt Brunswick	464 133 382 178 5,166 80 78 398 188	472 137 391 185 5,337 83 80 415	496 145 408 195 5,640 89 84	5.1 5.5 4.4 5.2 5.7 6.8 5.6	14,649 15,083 13,326 14,493 30,248 16,699 11,933 15,885 11,784	14,813 15,338 13,562 14,797 31,293 17,480 12,251 16,268 12,127	15,504 15,735 14,050 15,530 32,872 18,648 12,690 17,110	69 63 91 67 1 26 103 43	Alleghany, Clifton Frg. + Covington Augusta, Staunton + Waynesboro Bedford A Bedford City Campbell + Lynchburg Carroll + Galax Dinwiddle, Col. Hts. + Petersburg Fairfax, Fairfax City + Falls Church Frederick + Winchester	365 1,676 887 1,909 420 1,279 24,591 1,196	378 1,690 929 1,946 432 1,322 26,105 1,226	398 1,764 982 2,038 460 1,387 27,674 1,290 229	6.3 5.0 6.0 5.2	14,735 17,096 17,052 16,776 12,599 16,936 28,895 17,504	15,327 17,096 17,442 17,015 12,925 17,371 30,088 17,592	13,676 18,040 31,204 18,205	95 29 3 28
Buckingham Caroline Charles City Charlotte Chesterfield Clarke	458 163 284 93 145 4,543 224	466 172 286 95 150 4,635 232	202 491 183 303 101 159 4,878 242	5.4 6.1 5.8 6.1 6.3 5.3 4.1	14,655 12,623 14,697 14,717 12,364 21,493 18,516	14,717 13,251 14,441 15,117 12,687 21,239 19,374	15,509 14,053 15,078 15,838 13,433 21,660 20,170	90 78 62 98 12 17	Greensville + Emporia  Halifax + South Boston	199 487 1,215 941 1,169 1,575 769	217 500 1,211 984 1,182 1,614 798	528 1,278 1,035 1,238 1,717 845	5.5 5.5 5.2 4.7 6.4 6.0	14,062 13,491 16,622 20,142 12,972 14,461 15,173	13,825 13,888 16,603 20,546 13,166 14,775 15,990	13,657 15,705 16,369	86 36 13 96 64 51
Craig Culpeper Cumberland Dickenson	58 498 117 213	60 506 124 227	63 523 129 245	4.6 3.5 4.0 7.7	13,234 17,708 14,925 12,138	13,386 17,640 15,853 12,811	14,065 17,963 16,393 13,788	32 50 94	Manassas Park Roanoke + Salem Rockbridge, Buena Vista + Lexington Rockingham + Harrisonburg	4,855 2,142 451 1,423	5,053 2,175 469 1,498	5,365 2,296 490 1,597	5.6 4.4	19,239 20,761 14,180 16,057		20,100 22,139 15,230 17,525	10
Essex Fauquier Floyd Fluvanna Franklin Giles Gloucester	133 1,155 163 198 568 234 484	138 1,190 171 207 577 239 506	149 1,236 176 222 618 250 536	3.9 3.3 7.0 7.2 4.7 6.0	15,260 23,581 13,556 15,721 14,298 14,311 15,986	15,762 23,961 14,050 15,590 14,228 14,610 16,488	16,701 24,389 14,240 15,853 15,107 15,272 17,137	7 87 60 77 72 42	Southampton + Franklin	401 1,419 948 635 1,054	418 1,452 988 663 1,114	440 1,543 1,041 705 1,176	6.3 5.4 6.4	15,732 18,286 14,724 14,491 19,615	16,523 18,163 15,254 15,067	17,209 18,753 16,004 15,965	40 24 57
Goochland	328 194 149	340 201 154	361 214 164	6.5	23,088 11,917 14,347	23,372 12,466 14,084	24,054 13,247 14,206	101	Washington	94,420 81,190 13,230	100,758 86,711 14,046	109,485 94,300 15,186	8.8	19,268 19,967 15,857	20,087 20,831 16,455	21,289 22,084 17,400	i]
Hanover Henrico Highland Isle of Wight King and Queen King George King William Lancaster Lee Loudoun	1,266 5,155 39 414 97 249 197 236 267 2,141	1,280 5,305 40 437 100 261 204 247 278 2,198	1,353 5,564 41 455 110 270 217 254 300 2,332	4.9 2.8 4.3 10.1 3.4 6.3 2.8 8.1	19,843 23,604 14,629 16,431 15,418 18,245 17,901 21,619 10,917 24,587		24,933 15,926 17,405 17,448 18,851 18,756 23,286 12,314	4 59 39 38 22 23 9	Adams Asotin Benton Chelan Clallam Clark Columbia Cowlitz Douglas Ferry	248 267 2,000 909 982 4,305 69 1,374 396 83	239 291 2,192 983 1,037 4,537 67 1,485 429 86	267 315 2,423 1,065 1,106 4,909 74 1,541 480 91	10.5 8.3 6.6 8.2 11.0 3.7 12.0	18,213 15,069 17,621 17,369 17,287 17,880 17,268 16,663 15,001 13,038	17,659 15,513	18,757 18,102 16,823	26 5 7 15 10 12 18 28
Louisa Lunenberg Madison Mathews Mecklenburg Middlesex Nelson New Kent Northampton Northumberland	309 146 163 158 415 150 181 182 194 183	313 147 170 162 429 157 186 189 195 189	331 154 178 171 451 165 198 207 203	4.7 4.2 5.5 5.2 5.3 4.9 5.0 6.0	15,084 12,807 13,585 18,932 14,207 17,269 14,154 17,273 14,838 17,385	14,059 19,393 14,572 17,748 14,295 17,425 15,004	13,407 14,763 20,402 15,194 18,542 14,940 17,994 16,021	100 83 14 75 27 81 30 56	Franklin Garfield Grant Grant Grays Harbor Island Jefferson King Kitsap Kitttas Klickitat	538 42 788 995 985 359 37,272 3,324 397 251	584 41 853 1,052 1,051 389 39,802 3,635 417 257	633 43 957 1,133 1,137 419 43,251 3,945 454	4.8 12.2 7.7 8.2 7.8 8.7 8.5 8.9	14,272 18,921 14,328 15,457 16,158 17,609 24,593 17,318 14,808 15,072	18,378 14,983 16,263 16,799 18,215 25,947 18,145 15,074	19,236 16,289 17,295 17,363 18,765 27,769 18,717 16,251	8 31 23 22 11 11 13 32
Nottoway Orange Page Page Patrick Powhatan Prince Edward Pulaski Rappahannock Richmond Russell	207 345 303 240 241 214 463 125 106 351	216 350 317 245 246 219 457 131 107 368	226 365 338 257 261 232 482 136 113 388	4.4 6.4 4.9 6.0 6.1 5.5 3.5 5.4	13,760	14,434 14,005 15,321 12,602 13,282 19,612 14,793	16,244 15,173 14,662 15,560 13,146 13,960 20,075 15,417	54 76 85 66 102 92 19 71	Lewis Lincoln Mason Mason Okanogan Pacific Pend Oreille Pierce San Juan Skagit Skamania	921 174 551 481 280 117 10,038 245 1,429 133	962 168 600 520 298 126 10,505 267 1,533	1,038 182 651 599 323 138 11,377 284 1,643	8.8 8.6 15.3 8.4 10.0 8.3 6.7	15,451 19,607 14,236 14,409 14,748 13,076 17,002 24,108 17,767 15,990	13,703 17,363 25,044 18,328	20,242 15,231 17,483 16,527 14,326 18,361 26,108 19,057	35 21 30 38 16 2
Scott           Shenandoah           Smyth           Stafford           Surry           Sussex           Tazewei           Warren           Westmoreland           Wythe	287 502 433 1,057 93 148 640 426 231 347	303 516 454 1,112 93 152 660 438 238 360	321 546 484 1,174 97 161 704 454 254 380	6.7 5.6 3.7 6.2	12,388 15,769 13,367 16,963 15,027 14,501 13,910 16,170 14,832 13,626	16,074 13,948 16,742 15,039 14,875 14,156 16,201	14,747 16,557 15,224 15,845 15,026 16,366 15,689	44 84 48 74 61 60 60 60 65 65 65	Snohomish Spokane Stevens Thurston Walkiakum Walla Walla Whatcom Whitman Yakima	8,768 5,922 410 2,946 55 742 2,157 530 2,935	9,416 6,354 445 3,207 57 770 2,335 535 3,093	10,355 6,888 482 3,496 62 838 2,508 2,508 3,379	8.4 8.3 9.0 8.4 8.9 7.4 8.0	18,613 16,320 13,190 18,076 16,603 15,304 16,724 13,666 15,496	17,091 13,983 18,925 17,042 15,431 17,518	18,069 14,447 19,801 17,976 16,610 18,184 15,081	37 6 20 29 17 36

Table 2.—Total Personal Income and Per Capita Personal Income by County, 1990-92—Continued

	1	Total persor	nal income		Per c	apita pe	rsonal in	come <sup>3</sup>			otal person	nal income		Per c	apita pe	rsonal in	1come 3
Area name	Mill	ions of dolla	ars	Percent change 2	-	Dollars		Rank in State	Area name	Mill	ions of dolla	ars	Percent change 2		Dollars		Rank in State
	1990	1991	1992	1991-92	1990	1991	1992	1992		1990	1991	1992	1991–92	1990	1991	1992	1992
West Virginia Metropolitan portion Nonmetropolitan portion	25,034 11,845 13,189	26,440 12,429 14,012	28,215 13,238 14,976	6.7 6.5 6.9	13,964 15,824 12,631	14,695 16,527 13,380	15,598 17,507 14,227	l	Forest	1,572 99	1,634 103	1,754 114	10.1	17,421 11,230	17,975 11,655	12,746	69
Barbour Berkeley Boone Braxton Brooke Cabell Calloun Clay Doddridge Fayette	168 879 345 147 376 1,512 76 90 72 558	177 942 371 150 384 1,596 80 96 75 602	190 1,016 396 159 403 1,708 88 104 81	7.3 7.8 6.6 6.2 4.9 7.0 10.7 8.2 7.1 6.7	10,705 14,694 13,383 11,272 13,923 15,636 9,670 9,031 10,293 11,661	11,319 15,290 14,241 11,429 14,230 16,526 10,133 9,610 10,622 12,598	11,337	18 4 51	Grant Green Green Lake lowa Iron Jackson Jefferson Juneau Kenosha	698 540 300 297 79 229 1,090 288 2,163	713 549 308 307 87 238 1,126 304 2,270	745 585 327 332 91 256 1,198 321 2,421	6.5 6.1 8.1 5.0 7.4 6.3 5.3	14,148 17,783 16,054 14,734 12,882 13,812 16,023 13,309 16,805	14,527 17,922 16,424 15,107 13,999 14,276 16,451 13,787 17,242	17,365 16,178 14,458 15,300 17,315 14,442	0 14 5 24 8 34 8 54 0 43 5 27 2 55 1 18
Gilmer Grant Greenbrier Hampshire Hancock Hardy Harrison Jackson Jefferson Kanawha	80 148 475 190 590 143 998 313 572 3,685	87 160 507 201 592 153 1,064 330 588 3,855	92 166 542 216 626 1,132 365 616 4,114	6.8 3.7 6.8 7.5 5.8 9.9 6.4 10.6 4.7 6.7	10,499 14,211 13,701 11,461 16,758 13,010 14,413 12,078 15,817 17,771	11,578 15,176 14,504 11,722 16,788 13,667 15,319 12,691 15,921 18,597	12,325 15,555 15,360 12,339 17,802 14,877 16,160 13,980 16,360 19,803	42 3 20 9 28 7	Kewaunee La Crosse Lafayette Langlade Lincoln Manitowoc Marathon Marinette Marquette Milwaukee	1,667 245 261 370 1,266 1,872 588 167 17,814	1,744 244 273 390 1,333 1,943 622 174 18,375	1,864 249 298 416 1,413 2,093 654 184 19,511	6.8 1.9 9.0 6.9 6.0 7.8 5.1 5.6 6.2	16,988 15,244 13,392 13,653 15,734 16,180 14,461 13,499 18,575	17,718 15,251 13,877 14,185 16,503 16,636 15,220 13,803 19,215	18,784 15,480 15,066 14,970 17,394 17,735 15,950 14,219 20,497	4 15 0 39 6 48 0 50 4 23 5 19 0 36 9 60 7 5
Lewis Lincoln Logan McDowell Marion Marshall Mason Mercer Mineral	3,685 203 201 539 368 824 506 306 944 346 415	3,655 216 210 575 383 866 530 319 1,000 366 447	228 229 617 409 896 555 344 1,056 380 484	5.6 9.3 7.4 6.7 3.5 4.8 7.8	11,837 9,403 12,567 10,521 14,407 13,565 12,169 14,552 12,970 12,334	12,595 9,775 13,331 11,118 15,103 14,259 12,706 15,442 13,639 13,201	13,169 10,579 14,361 11,988 15,572 14,868 13,814 16,231 14,086	33 53 24 46 14 21 29 8	Monroe Oconto Oneida Outagamie Ozaukee Pepin Pierce Polk Portage Price	491 399 500 2,483 1,821 100 503 486 917 225	517 406 534 2,622 1,908 100 525 503 958 235	557 431 578 2,832 2,042 107 559 543 1,057 250	8.0 7.0 7.0 6.5 8.0 10.4	13,351 13,165 15,730 17,618 24,887 14,033 15,335 13,945 14,912 14,403	13,904 13,348 16,495 18,473 25,584 14,103 15,853 14,278 15,379 14,998	14,029 17,429 19,681 26,812 15,152 16,709 15,283 16,791	9 61 9 22 1 9 1 47 9 31 3 44 1 30
Mingo  Monongalia  Monroe  Morgan  Nicholas  Ohio  Pendieton  Pleasants  Pocahontas  Preston  Putnam	1,139 146 160 319 925 98 103 107 350 625	1,220 152 174 333 979 108 108 114 363 674	1,341 158 188 348 1,035 115 119 124 382 725	10.0 4.2 7.9 4.7 5.7 6.7 10.1	15,072 11,794 13,149 11,906 18,227 12,230 13,634 11,956 12,041 14,531	16,024 12,172 13,997 12,437 19,505 13,413 14,270 12,813 12,417 15,253	17,306 12,589 14,701 12,901 20,640 14,333	6 38 22 35 1 25 12 30	Racine	3,270 222 2,365 173 927 768 173 1,806 249 359	3,440 229 2,404 177 960 797 185 1,855 247 368	3,614 244 2,637 185 1,046 853 201 1,987 271 388	6.9 9.7 4.6 8.9 7.0 8.9 7.2 9.6	18,641 12,631 16,906 11,440 18,357 16,277 12,169 17,345 13,156 14,203	19,361 12,992 17,036 11,711 18,731 16,725 12,764 17,767 13,066 14,507	18,474 12,305 20,072 17,563 13,557 18,921	64 44 16 71 7 7 31 21 7 66 1 1 5 7 66 1 5 7 9
Raleigh Randolph Ritchie Roane Summers Taylor Tucker Tyler Upshur Wayne	1,064 338 111 153 140 155 93 111 266 477	1,145 368 117 164 152 167 100 117 277 503	1,216 398 127 178 163 177 106 124 289 539	6.2 8.3 8.9 8.9 7.7 6.3	13,854 12,146 10,803 10,187 9,897 10,280 12,085 11,381 11,611 11,469	14,840 13,070 11,488 10,851 10,864 10,985 12,914 11,928 12,010 12,011	15,705 14,142 12,596 11,784 11,539 11,702 13,688 12,570	13 26 37 47 49 48 31 39	Vernon Vilas Walworth Washburn Washington Waukesha Waupaca Waushara Winnebago Wood	333 254 1,232 173 1,863 7,082 702 280 2,488 1,283	339 268 1,295 185 1,948 7,386 743 285 2,613 1,337	362 286 1,374 197 2,092 7,960 804 302 2,821 1,429	6.1 6.7 7.4 7.8 8.1 5.7 7.9	12,996 14,290 16,372 12,510 19,436 23,131 15,200 14,446 17,677 17,405	14,538 18,301	15,372 17,709 13,945 20,591 24,850 16,978 15,035	2 41 20 55 62 1 4 0 2 8 28 5 49 9 10
Webster Wetzel Wirt Wood Wyoming	97 260 51 1,352 323	99 279 53 1,420 338	109 292 58 1,521 361	10.0 4.8 9.6	9,036 13,532 9,781 15,546 11,151	9,370 14,534 10,050 16,298	10,390 15,241	54 17 52 5	Shawano (incl. Menominee)  Wyoming  Metropolitan portion  Nonmetropolitan portion	507 7,664 2,484 5,180	531 <b>8,278</b> <b>2,603</b> <b>5,675</b>	570 <b>8,659</b> <b>2,716</b> <b>5,943</b>	4.6 4.3	12,335 16,905 18,494 16,236	19,173	18,631 19,675	1
Wisconsin	85,288 62,184 23,105	88,812 64,806 24,006		7.0	17,399 18,625 14,781	17,954 19,224	19,038 20,395		Albany Big Horn Campbell Carbon Converse	415 145 517 280	448 154 578 295 178	467 160 607 303 187	2.5	13,883 17,590	19,345 17,998	15,082 19,806 18,737	2 22 6 6 7 8
Adams Ashland Barron Bayfield Brown Buffalo Burfato Calumet	179 214 582 183 3,522 212 154 551 777	188 228 611 192 3,707 212 161 567	201 238 648 202 3,996 221 174 612	1 8.0	11,393 13,155 14,258 13,070 18,037 15,587 11,737 16,047	14,877 13,602 18,684 15,645 12,262 16,282	15,625 14,296 19,845 16,266 13,097 17,357	57 8 32 68 25	Crook Fremont Goshen Hot Springs Johnson  Laramie Lincoin	169 90 439 182 76 102 1,292 176	105 483 212 82 113 1,360 191	107 506 214 87 114 1,441 202	1.9 4.8 .9 5.9 1.1 5.9 5.9	16,920 13,073 14,733 15,971 16,485 17,663 13,847	19,741 14,134 17,123 17,591 18,185 18,432 14,728	19,843 14,713 17,265 18,503 18,233 19,093 15,400	5 3 5 16 3 12 3 13 7 0
Chippewa Clark  Columbia Crawford Dane Dodge Door Douglas Dunn Eau Claire Florence	777 417 713 209 7,311 1,086 438 592 469 1,306	804 421 752 217 7,756 1,119 447 616 476 1,362	866 461 809 232 8,322 1,197 471 652 521 1,456 67	7.6 6.6 7.3 7.0 5.4 5.8 9.3	14,837 13,185 15,786 13,113 19,837 14,158 17,073 14,163 13,036 15,318 13,003	16,376 13,582 20,698 14,477 17,403 14,636 13,167 15,824	14,383 17,332 14,463 21,883 15,385 18,190	26 53 3 40 17 42 58 29	Natrona           Niobrara           Park           Platte           Sheridan           Sublette           Sweetwater           Teton           Uinta           Washakie           Weston	1,193 42 375 125 471 86 649 336 263 129 112	1,242 48 418 139 513 88 721 357 290 144 119	1,275 49 443 138 539 92 759 395 300 151 124	1.4 5.9 4 5.1 3.6 5.3 10.8 3.4 4.9	19,486 16,902 16,195 15,412 19,977 17,632 16,724 29,875 14,110 15,356 17,190	19,839 17,924 17,108 21,768 17,778 18,086 30,230 15,139 17,305	19,855 18,663 17,042 22,559 18,169 18,730 32,245 15,256 17,785	5 4 3 11 2 17 9 2 9 14 0 10 5 1 6 20 5 15

The personal income level shown for the United States is derived as the sum of the county estimates; it differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

2. Percent change was calculated from unrounded data.

<sup>3.</sup> Per capita personal income was computed using Bureau of the Census midyear population estimates. Estimates for 1990-92 reflect State and county population estimates available as of February 1994.

4. Denali and Lake - Peninsula Boroughs, AK begin in 1991.

5. Virginia combination areas consist of one or two independent cities with populations less than 100,000 combined with an adjacent county. The county name appears first, followed by the city name(s). Separate estimates for the jurisdictions making up the combined areas are not available.

# BUSINESS CYCLE INDICATORS

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Note.—This section of the Survey is prepared by the Business Cycle Indicators Branch.

Series	Coring title and timing electrication	Year						1993							1994	
no.	Series title and timing classification	1993	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
					1. COM	POSITE	INDEXE	S								
	The Leading Index															
910 ♦	Composite index of leading indicators, 1987=100 (L,L,L)  Percent change from previous month	98.7 .1 1.4	99.1 .2 –3.2	98.4 7 -2.0	98.4 0 –4.0	98.1 3 -1.2	98.1 0 2.0	97.9 2 1.2	98.4 .5 2.1	98.6 .2 5.0	99.1 .5 4.5	99.5 .4 - 6.7	r100.2 r.7 5.8	100.5 7.3 74.1	7100.5 70 74.1	P 101.2 P.7
1 ÷ 5 ÷	Leading index components:  Average weekly hours, mfg. (L,L,L)  Average weekly initial claims for unemployment insurance, thous. (L,C,L)  1.	41.4 365	41.4 349	41.2 375	41.5 374	41.4 387	41.2 383	41.4 399	41.4 371	41.5 370	41.6 354	41.7 336	41.7 <b>318</b>	41.8 360	41.2 338	P <b>42.2</b> 327
8 <b>♦</b> 32 <b>♦</b>	Mfrs.' new orders, consumer goods and materials, bil. 1987\$ (L,L,L). Vendor performance, slower deliveries diffusion index,	1,304.70	109.79 53.0	107.23 52.5	106.72 53.1	105.54 51.7	106.58 50.2	105.35 50.0	106.55	109.03 50.9	111.43 50.7	r 112.55 50.7	7114.63 51.7	7116.20	7115.30 58.8	P 116.82 55.1
20 +	percent (L,L,L)*.  Contracts and orders for plant and equipment, bil. 1987\$	51.6 434.98	36.26	734.41	34.15	33.96	37.86	34.67	51.3 36.38	35.84	37.71	7 40.53	39.98	55.0 741.30	741.39	P 42.74
29 💠	(L,L,L). Index of new private housing units authorized by local building permits, 1967=100 (L,L,L).	96.4	91.0	82.5	87.8	89.4	88.9	92.7	99.0	101.4	104.0	109.6	117.7	108.3	99.7	105.1
92 •	Change in mfrs.' unfilled orders, durable goods, bil. 1987\$, smoothed (L,L,L) †.	-2.87	-2.08	-2.18	-2.42	-2.97	-3.35	-3.30	-3.15	-3.23	-3.10	-2.92	-2.89	r-2.21	r-1.69	₽−1.40
99 <b>♦</b> 19 <b>♦</b>	Change in sensitive materials prices, percent, smoothed (L,L,L)†. Index of stock prices, 500 common stocks, 1941-43=10,	26 451.41	15 441.70	18 450.16	30 443.08	40 445.25	43 448.06	43 447.29	48 454.13	750 459.24	732 463.90	705 462.89	.29 465.95	.52 <b>472.99</b>	.80 471.58	1.06 463.81
106 ÷ 83 ÷	NSA (L,L,L)*.  Money supply M2, bil. 1987\$ (L,L,L)	2,774.0 72.8	2,775.4 80.6	2,769.3 75.8	2,763.0 76.4	2,775.3 68.5	2,778.5 70.4	r2,778.0 64.7	2,773.1 65.8	r 2,777.1 66.8	2,769.6 72.5	2,769.6 70.3	2,768.5 78.8	72,773.4 86.4	° 2,764.3 83.5	P 2,767.5 85.1
950 •	Diffusion index of 11 leading indicator components: Percent rising over 1-month span Percent rising over 6-month span	56.1 64.4	59.1 45.5	9.1 22.7	54.5 31.8	36.4 36.4	54.5 63.6	40.9 63.6	77.3 81.8	68.2 90.9	81.8 90.9	72.7 81.8	81.8 -⁄ 90.9	81.8	45.5	#81.8 
	The Coincident Index			ł						İ						l
920 ♦	Composite index of coincident indicators, 1987=100 (C,C,C) Percent change from previous month Percent change over 3-month span, AR	109.1 .1 2.5	107.9 .3 5.0	108.1 .2 3.8	108.6 .5 3.4	108.8 .2 3.0	108.9 .1 .7	108.8 1 2.2	109.4 .6 2.6	109.6 .2 4.5	110.0 .4 4.1	110.5 .5 5.6	111.1 .5 - 2.9	7110.8 73 74.0	′111.6 ′.7 ³3.6	3,4
41 + 51 +	Coincident index components: Employees on nonagricultural payrolls, thous. (C,C,C) Personal income less transfer payments, bil. 1987\$, AR (C,C,C).	110,178 3,519.7	109,539 3,449.3	109,565 3,471.1	109,820 3,517.7	110,058 3,524.3	110,101 3,511.7	110,338 3,499.1	110,305 3,542.3	110,502 3,544.2	110,664 3,559.7	110,880 3,578.2	111,110 3,597.4	111,079 r3,562.8	111,277 73,618.8	P 111,733 P 3,632.6
47 <b>♦</b> 57 <b>♦</b>	Index of industrial production, 1987=100 (C,C,C)	110.9 6,197,402	109.9 1510,300	110.0 *509,203	110.5 507,439	110.0 510,535	110.4 514,723	110.9 510,834	111.1 518,086	111.3 520,538	111.9 523,160	112.8 528,675	114.0 534,561	7114.4 7532,478	7 115.0 P <b>537,128</b>	
951	Diffusion index of 4 coincident indicator components: Percent rising over 1-month span Percent rising over 6-month span	80.2 97.9	100.0 100.0	62.5 75.0	75.0 100.0	75.0 100.0	62.5 100.0	50.0 100.0	87.5 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0 3 100.0	37.5	100.0	<sup>3</sup> 100.0
	The Lagging Index															ĺ
930 ♦	Composite index of lagging indicators, 1987=100 (Lg,Lg,Lg) Percent change from previous month Percent change over 3-month span, AR	96.4 .1 0	96.6 0 3.4	96.4 2 8	96.4 0 -1.2	96.3 1 4	96.3 0 1.3	96.7 .4 .4	96.4 3 1.3	96.6 .2 -1.2	96.4 2 8	96.2 2 r-1.6	796.2 70 .4	796.5 7.3 7–.4	796.1 74 48	496.0 41
91 + 77 +	Lagging index components: Average duration of unemployment, weeks (Lg,Lg,Lg) <sup>5</sup> ‡ Ratio, mfg. and trade inventories to sales in 1987\$ (Lg,Lg,Lg).	18.1 1.56	18.2 1.57	17.7 1.57	17.7 1.58	17.8 1.58	17.8 1.56	17.9 1.58	18.3 1.56	18.4 1.56	18.4 1.55	18.9 1.54	18.2 1.52	18.3 1.52	18.7 • 1.52	19.2
62 ♦	Change in Tabor cost per unit of output, mfg., percent, AR, smoothed (Lg,Lg,Lg) † 6.	-2.5	-3.6	-3.9	-4.0	-3.3	-2.9	-2.5	-1.8	8	9	-1.6	-2.5	<sup>7</sup> -2.4	r-1.9	₽−1.9
109 +	Average prime rate charged by banks, percent, NSA (Lg,Lg,Lg)*.  Commercial and industrial loans outstanding, mil. 1987\$	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.06
101 <b>♦</b> 95 <b>♦</b>	(Lg,Lg,Lg).	371,320	369,653	363,441	365,115	368,471	370,002	375,158	376,605	376,574	373,963	374,072	7373,204	7377,946		₽370,667
120 •	Ratio, consumer installment credit outstanding to personal income, percent (Lg,Lg,Lg). Change in Consumer Price Index for services, percent, AR, smoothed (Lg,Lg,Lg) †.	14.13 3.8	14.24 3.8	14.18 3.9	14.02 4.0	13.94 4.1	14.00 4.1	14.12 4.0	14.04 3.9	14.13 3.7	14.16 3.6	14.20 3.5	14.24 3.5	7 <b>14.48</b> 3.1	#14.29 3.2	
952	Diffusion index of 7 lagging indicator components: Percent rising over 1-month span Percent rising over 6-month span	49.4 43.3	71.4 35.7	35.7 57.1	71.4 50.0	50.0 50.0	57.1 35.7	64.3 50.0	28.6 50.0	50.0 50.0	28.6 - 50.0	28.6 721.4	7 42.9 4 20.0	r57.1	<sup>7</sup> 42.9	450.0
940 💠	Ratio, coincident index to lagging index, 1987=100 (L,L,L) .	113.2	111.7	112.1	112.7	113.0	113.1	112.5	113.5	113.5	114.1	114.9	² 115.5	r 114.8	<sup>7</sup> 116.1	P 116.8

NOTE.—The following current high values were reached before February 1993: May 1991—BCI-106 (2,865.8); August 1991—BCI-92 smoothed (-0.83); December 1991—BCI-62 smoothed (3.0) and BCI-77 (1.65); January 1992—BCI-103 (1.65); January 1992—BCI-104 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1992—BCI-105 (1.65); January 1993—BCI-105 (1.

Series	Sories title and timing electification	Year						1993	· · · · · · · · · · · · · · · · · · ·						1994	
no.	Series title and timing classification	1993	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Dec.	Jan.	Feb.	Mar.
			2. LABO	OR FOR	CE, EMP	LOYME	NT, AND	UNEMP	LOYMEN	IT						
441 442	Labor force: Civilian labor force, thous.  Civilian employment, thous.  Civilian labor force participation rates (percent):	128,040 119,306	127,400 118,442	127,440 118,562	127,539 118,585	128,075 119,180	128,056 119,187	128,102 119,370	128,334 119,692	128,108 119,568	128,580 119,941	128,662 120,332	128,898 120,661	130,667 121,971	130,776 122,258	130,580 122,037
451 452 453	Males 20 years and over 1  Females 20 years and over 1  Both sexes 16-19 years of age 1	76.9 58.4 51.5	76.9 58.2 51.9	76.9 58.2 51.5	76.9 58.2 51.8	77.1 58.4 52.5	77.0 58.5 51.5	77.0 58.4 51.8	77.0 58.5 51.6	76.7 58.4 51.2	77.0 58.6 51.1	76.8 58.7 51.2	76.8 58.9 50.9	77.0 59.3 53.3	76.9 59.5 52.4	76.8 59.3 52.3
1 ÷ 21 ÷ 5 ÷	Marginal employment adjustments:  Average weekly hours, mfg. (L_L,L)	41.4 4.1 365	41.4 4.2 349	41.2 4.0 375	41.5 4.2 374	41.4 4.1 387	41.2 4.0 383	41.4 4.0 399	41.4 4.1 371	41.5 4.1 370	41.6 4.3 354	41.7 4.3 336	41.7 4.4 <b>318</b>	41.8 4.4 360	41.2 4.6 338	P <b>42.2</b> P <b>4.8</b> 327
46 + 60	Job vacancies: Index of help-wanted advertising, 1967=100 (L,Lg,U) Ratio, help-wanted advertising to unemployed (L,Lg,U) <sup>1</sup>	101 .344	97 .322	96 .322	96 .319	100 .334	97 .325	101 .344	103 .355	101 .352	106 .365	107 .382	110 .397	105 .359	115 .402	P 117 P .407
48 +	Employment: Employee hours in nonagricultural establishments, bil. hours, AR (U,C,C).	203.97	202.47	202.33	202.78	205.28	203.57	204.05	204.76	204.06	205.26	205.16	205.91	<sup>207.65</sup>	<sup>r</sup> 204.97	P 207.23
42	Persons engaged in nonagricultural activities, thous. (U,C,C) 1.	116,232	115,326	115,463	115,514	116,106	116,156	116,327	116,687	116,475	116,920	117,218	117,565	118,639	118,867	118,611
41 <b>+</b> 963	Employees on nonagricultural payrolls, thous. (C,C,C) Diffusion index of employees on private nonagricultural payrolls, 356 industries:	110,178	109,539	109,565	109,820	110,058	110,101	110,338	110,305	110,502	110,664	110,880	111,110	111,079		P 111,73
40 ÷ 90 ÷	Percent rising over 1-month span	54.7 57.0 22,975 61.6	59.7 58.3 23,069 61.4	51.0 58.3 23,016 61.4	53.8 57.7 22,980 61.4	56.9 49.7 23,006 61.7	46.5 51.1 22,941 61.6	57.9 52.9 22,948 61.6	44.4 55.9 22,903 61.8	57.2 58.7 22,886 61.6	53.9 57.0 22,934 61.8	61.0 52,994 61.9	56.0 963.9 23,008 62.0	23,024 62.2	23,018 <b>62.3</b>	P 61.9 P 23,10 62.3
37 43 • 45	Unemployment:  Number of persons unemployed, thous. (L,Lg,U) 1 ‡  Civilian unemployment rate, percent (L,Lg,U) 1 ‡  Average weekly insured unemployment rate, percent (L,Lg,U) 3 ‡.	8,734 6.8 2.6	8,958 7.0 2.5	8,878 7.0 2.5	8,954 7.0 2.6	8,895 6.9 2.6	8,869 6.9 2.7	8,732 6.8 2.7	8,642 6.7 2.6	8,540 6.7 2.6	8,639 6.7 2.6	8,330 6.5 2.6	<b>8,237</b> <b>6.4</b> 2.5	8,696 6.7 <b>2.5</b>	8,518 6.5 2.6	8,543 6.5 2.0
91 <b>•</b> 44	Average duration of unemployment, weeks (Lg,Lg,Lg) <sup>1</sup> ‡ Unemployment rate, 15 weeks and over, percent (Lg,Lg,Lg) <sup>1</sup> ‡.	18.1 2.4	18.2 2.5	17.7 2.4	17.7 2.3	17.8 2.4	17.8 2.4	17.9 2.3	18.3 2.3	18.4 2.4	18.4 2.4	18.9 2.3	18.2 <b>2.2</b>	18.3 2.3	18.7 2.4	19 <i>1</i> 2.4
			3. OUT	PUT, PR	ODUCT	ION, ANI	CAPA(	CITY UTI	LIZATIO	N						
55 <b>•</b>	Output: Gross domestic product, bit. 1987\$, AR (C,C,C)	5,136.0 3.0 5,138.6	5,078.2 .8 5,080.7		······	5,102.1 1.9 5,104.1			5,138.3 2.9 5,145.8			5,225.6 7.0 <b>5,223.</b> 7			P <b>5,259.0</b> P 2.6	
49 47 +	Value of domestic goods output, bil. 1987\$, AR (C,C,C) Industrial production indexes, 1987=100:	2,083.8	2,060.2	110.0	110.5	2,069.1	110.4	110.9	0.074.01	111.3	111.9	2,130.9	114.0	r 114.4	<b>* 2,161.0</b>	
73 ÷ 74 ÷ 75 ÷	Total (C,C,C) Durable manufactures (C,C,C) Nondurable manufactures (C,L,L) Consumer goods (C,L,C)	114.3 108.6 108.8	112.1 108.2 108.9	112.5 108.2 108.9	113.5 108.7	113.2 108.5 107.8	113.0 108.9 108.1	113.7 109.1 108.9	113.9 109.2 108.6	115.0 108.5 108.5	116.2 108.8 109.2	118.0 109.1 109.7	120.1 * 109.7 110.1	7 120.4 7 109.6 7 110.6	7 121.3 7 110.1 7 <b>111.8</b>	P 121.9
124 82 •	Capacity utilization rates (percent): Total industry (L,C,U) Manufacturing (L,C,U)	81.5 80.6	81.2 80.2	81.2 80.1	81.4 80.6	81.0 80.2	81.1 80.1	81.3 80.3	81.4 80.3	81.4 80.4	81.7 80.8	82.2 81.5	* 82.9 82.3	* 83.1 * 82.2	83.4 182.5	
				4. SA	LES, OR	DERS, A	ND DEL	.IVERIES	3							
57 <b>♦</b> 59 <b>♦</b>	Sales: Manufacturing and trade sales, mil. 1987\$ (C.C.C)	6,197,402 1,757,913			507,439 143,700	510,535 144,933	514,723 145,871	510,834 146,477	518,086 147,360	520,538 147,695	523,160 149,968	528,675 150,802	534,561 152,695		p <b>537,128</b> r 152,786	P 153,16
7 <b>+</b> 8 <b>+</b>	Mfrs.' new orders, durable goods, bil. 1987\$ (L,L,L) Mfrs.' new orders, consumer goods and materials, bil. 1987\$ (L,L,L). Mfrs.' unfilled orders, durable goods, mil. 1987\$ 0	1,381.61 1,304.70 362,630	117.19 109.79 396,886	112.96 107.23 390,926	112.61 106.72 387,356	109.77 105.54 381,879	114.50 106.58 378,466	111.08 105.35 377,172	113.68 106.55 374,775	115.01 109.03 370,372	117.87 111.43 368,404	7 120.10 7 112.55 366,140	122.20 7114.63 362,630	126.96 116.20 364,684	7 124.51 7 115.30 7 363,373	P 116.8
92 •	Change from previous month, bil. 1987\$	2.88 2.87	35 -2.08	-5.96 -2.18	-3.57 -2.42	-5.48 -2.97	-3.41 -3.35	-1.29 -3.30	-2.40 -3.15	-4.40 -3.23	-1.97 -3.10	-2.26 -2.92	-3.51 -2.89	72.05 7–2.21	7 –1.31 7 –1.69	P-1.8 P-1.4
32 +	Vendor performance, slower deliveries diffusion index, percent (L,L,L)*.	51.6	53.0	52.5	53.1	51.7	50.2	50.0	51.3	50.9	50.7	50.7	51.7	55.0	58.8	55.
				5.	FIXED C	APITAL	INVEST	MENT								
12 + 13 +	Formation of business enterprises: Index of net business formation, 1967=100 (L,L,L) Number of new business incorporations (L,L,L)	121.2	120.9 59,691	122.0 61,002	121.0 59,648	117.6 51,765	120.8 60,422	120.7 58,387	121.1 58,209	122.3 <b>63,758</b>	119.2 55,294	r 123.5 r 61,739	′ 126.1	r 125.8	P 126.4	
10	Business investment commitments: Contracts and orders for plant and equipment, bil.\$	427.36	36.36	734.04	33.89	33.25	38.15	33.77	35.63	34.94	36.56	38.78	38.84	40.91	r 40.73	P 41.4
20 💠	(L,L,L).  Contracts and orders for plant and equipment, bil. 1987\$  (I   1   1)	434.98	36.26	r34.41	34.15	33.96	37.86	34.67	36.38	35.84	37.71	² 40.53	39.98	<sup>7</sup> 41.30	r41.39	P 42.7
27 💠	(L,L,L).  Mfrs.' new orders, nondefense capital goods, bil. 1987\$  (L,L,L).	394.44	33.09	30.13	31.18	31.08	34.11	31.47	33.24	32.44	34.49	r 37.19	36.76	r 37.68	r 37.73	P 38.5
9 +	Construction contracts awarded for commercial and industrial buildings, mil. sq.ft.(L,C,U) © 4.	535.60	40.20	43.22	43.80	42.80	43.43	47.58	44.44	45.34	46.74	47.15	52.36	52.76	49.34	61.8
61	Business investment expenditures:  New plant and equipment expenditures by business, bil.\$, AR (C,Lg,Lg)*.	585.64	564.13			579.79			594.11			<sup>-</sup> 604.51			a 621.28	
100 +	New plant and equipment expenditures by business, bil. 1987\$, AR (C,Lq,Lq)*.	555.70				546.97			565.28			r 576.82			a 595.36	
69 ♦	Mfrs.' machinery and equipment sales and business construction expenditures, bil.\$, AR (C,Lg,Lg).	464.32	447.24	465.62	448.70	454.96	462.72	442.00	468.37	464.07	469.92	492.08	513.28	r 484.00	r 491.97	P 502.1

NOTE.—The following current high values were reached before February 1993: July 1991—BCI-92 change (6.72) and August 1991—BCI-92 smoothed (-0.83). See page C-6 for other footnotes.

			r					4000							4004	
Series no.	Series title and timing classification	Year 1993	Feb.	Mar.	Apr.	May	June	1993 July	Aug.	Sept.	Oct	Nov.	Dec.	Jan.	1994 Feb.	Mar.
			L		•	L INVES								•		
	Business investment expenditures—Continued:					1										
76 ♦	Index of industrial production, business equipment, 1987=100 (C,Lg,U). Gross private nonresidential fixed investment, bil. 1987\$, AR:	134.6	130.0	131.5	133.1	133.5	133.9	134.6	134.8	136.3	137.7	139.7	r 141.8	r 143.1	144.7	P 145.7
86 + 87 + 88 +	Total (C,Lg,C) Structures (Lg,Lg,Lg) Producers' durable equipment (C,Lg,C)	591.8 151.5 440.2	562.3 148.2 414.1			584.3 151.1 433.2			594.8 151.2 443.6			625.7 155.6 470.0			P <b>634.1</b> P 148.9 P <b>485.1</b>	
28 <b>•</b> 29 <b>•</b>	Residential construction and investment: New private housing units started, thous., AR (L,L,L) Index of new private housing units authorized by local building permits, 1967+100 (L,L,L).	1,288 96.4	1,194 91.0	1,092 82.5		1,241 89.4	1,238 88.9	1,245 92.7	1,319 99.0	1,359 101.4	1,409 104.0	1,406 109.6	1,612 117.7	71,271 108.3	71,314 99.7	P 1,473 105.1
89 ♦	Gross private residential fixed investment, bil. 1987\$, AR (L,L,L).	214.2	211.4		************	206.2	······		212.1		***************************************	227.2			P 232.2	
			6.	INVENT	ORIES A	ND INVE	NTORY	INVEST	MENT							
70 77 ◆	Inventories on hand:  Mig. and trade inventories, bil. 1987\$ (Lg,Lg,Lg) \( \cdot \)  Ratio, mfg. and trade inventories to sales in 1987\$ (Lg,Lg,Lg).	810.80 1.56	799.49 1.57	801.86 1.57	803.31 1.58	804.68 1.58	805.35 1.56	806.10 1.58	806.64 1.56	809.45 1.56	809.90 1.55	812.33 1.54	810.80 1.52	r811.15 1.52	P <b>814.34</b> P 1.52	
30 + 31 +	Inventory investment: Change in business inventories, bil. 1987\$, AR (L,L,L) Change in mfg. and trade inventories, bil.\$, AR (L,L,L)	14.3 23.9	29.3 726.1	r 53.2	35.1	13.0 24.9	6.8	1.9	6.5 23.7	22.9	14.7	8.5 <b>55.3</b>	-13.6	r 17.8	P <b>30.5</b> P 52.3	
						7. PRIC	ES									
	Sensitive commodity prices: Index of sensitive materials prices, 1987=100 Percent change from previous month	99.60 01	101.30 07	100.81 48	99.87 93 30	99.31 56	99.15 16	98.88 27	98.03 86	, 97.67 , –.37	98.55 7.90 732	799.48 7.94	100.77 7 1.30 .29	101.25 .48	102.92 1.65	<b>104.42</b> 1.46
99 <b>◆</b> 98	Percent change from previous month, smoothed (L,L,L)†. Index of producer prices for sensitive crude and intermediate materials, 1987-100 (L,L,L).	26 161.88	15 157.91	18 161.00	30 161.06	40 159.80	43 159.63	43 160.26	48 159.54	r –.50 161.51	7 –.32 165.78	r 169.43	.29 172.97	.52 173.90	.80 172.55	1.06 173.03
	Cattle hides Lumber and wood products Wastepaper, news	180.4 174.2 100.7	175.9- 168.1 109.1	177.0 174.6 110.1	173.0 177.1 112.5	175.6 175.1 104.0	176.8 172.0 104.0	181.1 170.7 97.2	179.7 172.1 94.0	185.9 174.4 93.5	184.4 177.7 94.2	7185.2 7181.3 794.0	182.7 185.2 91.5	181.7 186.6 87.8	176.4 181.7 94.5	178.1 181.5 97.9
	Wastepaper, mixed, NSA Wastepaper, corrugated Iron and steel scrap	90.6 142.0 172.8	86.5 143.6 160.5	97.5 149.0 157.8	101.5 147.5	107.5 143.3 158.0	107.4 140.6 170.4	102.8 140.2 179.1	80.8 139.4 170.0	80.4 138.9 171.2	80.2 139.0 190.7	79.3 7139.9 7202.5	79.2 138.0 207.7	73.8 136.4 202.7	72.0 153.7 203.8	75.2 195.0 200.3
	Copper base scrap  Aluminum base scrap  Other nonferrous scrap, n.e.c., NSA	136.0 129.3 113.9	160.8 135.4 128.6	151.6 129.7 125.0		131.5 125.1 113.3	135.4 126.6 113.3	133.8 130.6 115.0	130.2 127.5 113.5	125.1 125.6 107.5	119.0 128.7 100.7	7117.3 7128.1 798.5	121.2 129.9 103.7	128.5 131.3 106.6	135.3 141.1 115.4	136.6 148.7 119.8
	Sand, gravel, and crushed stone	134.0 92.2 56.5	132.6 93.5 63.6	132.6 94.7 57.2	133.1 89.4 53.5	132.8 88.3 53.5	133.3 84.7 55.2	133.7 85.5 53.4	133.8 85.7 54.9	134.8 790.5 51.7	136.3 95.9 53.1	7 135.7 97.9 56.8	136.3 104.3 58.1	136.5 114.8 56.7	136.7 124.6 63.2	136.9 121.4 69.3
23 •	Index of spot market prices, raw industrial materials, 1967=100, NSA (U,L,L) © 1°.  Copper scrap, \$ per lb. ©	.702	270.0 .864	.812	261.5 .737	257.8 .702	257.1 .693	257.2 .672	255.5 .654	.611	255.6 .578	258.1 .572	263.7 .644	.696	275.2 .717	279.1 .747
	Lead scrap, \$ per lb. ©  Steel scrap, \$ per ton ©  Tin, \$ per lb, NSA ©  Zinc, \$ per lb, NSA ©	.139 115.553 3.494	.157 108.543 3.835	.157 108.044 3.779 .496	.146 105.069 3.738 .504	.143 104.412 3.703 .494	.144 112.183 3.482 .467	.140 119.654 3.395 .470	.134 114.042 3.294 .451	.123 110.402 3.095 .445	.118 127.351 3.189 .459	.123 138.940 3.225 .466	.124 140.435 3.286 .492	.128 139.625 3.324 .496	.131 140.201 3.598 .483	.130 138.530 3.621 .467
	Burlap, \$ per yd., NSA ©  Cotton, \$ per ib. ©  Print cloth, \$ per yd., NSA ©	.484 .247 .556 .677	.535 .245 .569 .640	.450 .245 .562 .652 3.160	.245 .540 .650	.245 .532 .655	.245 .502 .644	.245 .509 .640	.240 .513 .688	.241 .547 .700	.247 .571 .700	.256 .607 .750	.265 .644 .750	.269 .703 .750 3.500	.273 .753 .750	.275 .726 .750
	Wool tops, \$ per lb., NSA ©	3.339 .799 59.238	3.312 .800 59.880	3.160 .816 59.880	.814	3.050 .805 60.000	3.400 .774 60.000	3.400 .762 60.000	3.400 .792 59.940	3.400 .805 59.940	3.450 .815 59.118	3.600 .808	3.500 .798 56.225	3.500 .756 55.944	3.750 .746 55.944	3.900 .788 55.944
	Rubber, \$ per lb. © Tallow, \$ per lb. ©	.450 .147	.473 .150	.461 .153	.443 .157	.441 .152	.440 .148	.437 .148	.441 .146	.447 .142	.442 .140	.448 .138	.446 .143	.448 .152	.447 .156	.493 .155
336	Producer Price Indexes: Finished goods, 1982=100  Percent change over 1-month span  Percent change over 6-month span, AR	124.7 0	124.8 .4 2.9	125.1 .2 1.9	125.7 .5 1.3	125.7 0 -1.1	125.1 5 -1.3	125.1 0 -2.4	124.1 8 -2.2	124.3 .2 -1.4	124.2 1 -1.0	124.3 .1	124.2 1 1.8	124.5 .2	125.1 .5	125.4 .2
337	Finished goods less foods and energy, 1982=100  Percent change over 1-month span  Percent change over 6-month span, AR	135.8	135.9 .3 2.8	136.1 .1 2.1	136.5 .3 1.6	136.8 .2 -1.2	136.4 3 -1.3	136.6 .1 -2.5	135.1 -1.1	135.2 .1 -1.3	134.8 3 7	1.6 *135.3 *.4 1.8	135.5 135.5 7.1 2.1	136.1 .4	136.3	136.6
334	Finished consumer goods, 1982=100  Percent change over 1-month span  Percent change over 6-month span, AR	123.0 0 2	123.3 .4 3.0	123.6 .2 1.8	124.3 .6 1.0	124.2 1 -1.9	123.5 6 -2.1	123.4 1 -3.2	r-2.2 122.1 -1.1 -2.9	122.3 .2 -2.3	122.3 0 -1.8	122.4 122.4 .1 1.5	122.1 2 1.5	122.3 .2	123.0 .6	123.2
333	Capital equipment, 1982=100 Percent change over 1-month span Percent change over 6-month span, AR	131.4 .2 1.8	130.8 .3 2.6	131.0 .2 2.3	131.3 .2 1.8	131.3 0 1.5	131.2 1 1.4	131.6 .3 .2	–2.9 131.8 .2 .8	131.9 .1 1.5	131.4 4 2.1	131.8 .3 2.0	132.2 .3 2.4	133.0 .6	133.1 .1	133.5 .3
332	Intermediate materials, supplies, and components, 1982=100. Percent change over 1-month span	116.2	115.9 .4	116.3 .3	.3	116.3 3 .7	116.3 0	116.3 0	116.3	116.3 0	116.4 .1	7116.6 7.2	116.2 ′3	116.4 .2	116.9 .4	117.1 .2
331	Percent change over 6-month span, AR	1.0 102.4 0 .6	2.1 101.6 1 4.7	2.1 101.8 .2 3.8	1.2	.7 105.2 2.1 -1.6	0 103.6 –1.5 –.6	3 101.5 -2.0 1.4	7.5 100.8 7 7-3.4	2 101.5 .7 -4.6	.2 103.7 2.2 2.0	1.0 7 103.4 7 –.3 .8	1.4 101.2 7-2.1 5.0	102.5 1.3	101.2 -1.3	104.0
311	Fixed-weighted price index, gross domestic business product, 1987=100.  Percent change from previous quarter, AR	124.6 3.0	123.5 3.7		`	124.4 2.9	0		125.0			125.7 2.2			P 126.4	
320	Consumer Price Indexes for all urban consumers: All items, 1982-84=100, NSA Percent change over 1-month span	144.5	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7	145.8	145.8	146.2	146.7	147.2
323	Percent change over 6-month span, AR  All items less food and energy, 1982-84=100  Percent change over 1-month span	2.6 152.2	3.1 150.8 4	151.1	.3 2.7 151.6 .3	2.5 152.0	2.2 152.3	2.2 152.6	2.4 153.0	2.6 153.1 .1	2.4 153.5 .3	2.4 154.1	2.9 154.4	154.6	155.0	155.5 .3
ا •	Percent change over 6-month span, AR  Services, 1982-84=100  Percent change from previous month, AR	.3 3.0 157.9 3.8	.4 3.5 155.6 3.1	156.2 4.7	3.2 156.8 4.7	.3 2.9 157.3 3.9 4.1	.2 2.7 157.8 3.9	3.1	.3 2.8 158.7 3.9	2.8 159.1 3.1	.3 2.6 159.5 3.1	160.0	3.2 160.5 3.8	160.6	.3 161.3 5.4	162.0
120 ♦	Percent change from previous month, AR, smoothed (Lg,Lg,Lg)†.	3.8	3.8	3.9	4.0	4.1	4.1	4.0	3.9 3.9	3.7	3.6	3.8 3.5	3.8 3.5	.8 3.1	5.4 3.2	5.3 3.6

NOTE.—The following current high values were reached before February 1993: July 1991—BCI-120 change (5.9); December 1991—BCI-77 (1.65); January 1992—BCI-120 smoothed (4.2); March 1992—BCI-99 change (1.68); and July 1992—BCI-23 (265.7).

See page C-6 for other footnotes.

#### SURVEY OF CURRENT BUSINESS

Series	Series title and timing classification	Year						1993							1994	
no.	Series and annual series	1993	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
				8.	PROFIT	S AND	CASH FL	.ow								
16 ♦	Profits and profit margins: Corporate profits after tax, bil.\$, AR (L,L,L)	275.4	258.9			272.3			274.3			<sup>-</sup> 295.9				*******
18 ÷ 22 ÷	Corporate profits after tax, bil. 1987\$, AR (L,L,L)	233.9 7.2	219.2 6.9			230.7 7.2			232.7 7.0			7252.8 7.8				••••••
81 •	Ratio, corporate domestic profits after tax with IVA and CCAdj to corporate domestic income, percent(U.L.L).	7.8	7.3			7.6			7.9			78.4				
26 •	Ratio, implicit price deflator to unit labor cost, all persons, nonfarm business sector,1982=100 (L,L,L).	104.3	103.9			103.8			104.3			105.3				••••••
35	Corporate net cash flow, bil. 1987\$, AR (L,L,L)	496.2	477.8			490.2			498.2			<sup>7</sup> 518.6				
			9. 1	WAGES,	LABOR	COSTS	AND P	RODUCT	IVITY							
345	Wages and compensation: Index of average hourly compensation, all employees,	158.7	157.2			157.9			159.4			160.5				***************************************
	nonfarm business sector, 1982=100. Percent change from previous guarter, AR	3.6	2.9			1.7			3.9			2.8				************
46	Index of real average hourly compensation, all employees, nonfarm business sector, 1982=100. Percent change from previous quarter, AR	106.0	106.0	***************************************	***************************************	105.6 -1.4			106.1			106.1	***************************************		•••••	***********
53 ♦	Wages and salaries in mining, mfg., and construction, bil. 1987\$, AR (C,C,C).	592.5	581.7	578.8	596.3	596.0	592.8	594.7	595.2	596.9	596.9	598.8	600.8	r 602.1	r 604.3	P 604.
63	Unit labor costs: Index of unit labor cost, all persons, business sector, 1982=100 (Lg,Lg,Lg).	136.8	136.4			137.3			137.4			136.1				•••••
	Index of labor cost per unit of output, mfg., 1987=100 <sup>1</sup> .  Percent change from previous month, AR <sup>1</sup>	109.1 -3.6	109.6 -3.2	109.6 0	109.3 -3.2	109.4 1.1	109.1 -3.2	109.0 -1.1	109.0 0	109.3 3.4	108.7 -6.4	108.2 -5.4	107.7 -5.4	r 107.9 r 2.3	7108.0 71.1	₽ 107. ₽ <b>–</b> 4.
62 +	Percent change from previous month, AR, smoothed (Lg,Lg,Lg) <sup>1</sup> †.	-2.5	-3.6	-3.9	<b>-4.0</b> i	-3.3	-2.9	-2.5	-1.8	8	9	-1.6	-2.5	r –2.4	r-1.9	P-1.
70	Productivity: Index of output per hour, all persons, business sector, 1982=100.	117.6	116.6			116.6			117.6			119.6				***************************************
:	Percent change over 1-quarter span, AR Percent change over 4-quarter span, AR	1.8	-1.6 1.3			0 2.1			3.3			6.9				
58	Index of output per hour, all persons, nonfarm business sector, 1982=100.	115.7	114.8			114.7			115.8			117.5				***************************************
			10. PE	ERSONA	L INCO	ME AND	CONSU	MER AT	TITUDES							
50	Personal income:	4,000.0	44504	4404.0	4,000,0	4.000.5	4 007 0	4 047 0	40040	4 007 4	4 000 0	4 000 0	4 007 7	. 4 007 7	T40546	n 4 000
52 51 •	Personal income, bil. 1987\$, AR (C,C,C)	4,236.9 3,519.7	4,156.1 3,449.3	4,181.2 3,471.1	4,228.2 3,517.7	4,236.5 3,524.3	4,227.9 3,511.7	4,217.8 3,499.1	4,264.0 3,542.3	4,267.1 3,544.2	4,283.6 3,559.7	4,302.3 3,578.2	4,327.7 3,597.4	74,297.7 73,562.8	74,354.6 73,618.8	<sup>p</sup> 4,366. <sup>p</sup> 3,632.
58	Indexes of consumer attitudes: Consumer sentiment, U. of Michigan, 1966:l=100, NSA	82.8	86.6	85.9	85.6	80.3	81.5	77.0	77.3	77.9	82.7	81.2	88.2	94.3	93.2	91
83 +	(L,L,L) © <sup>2</sup> .  Consumer expectations, U. of Michigan, 1966:I=100,  NSA (L,L,L) © <sup>2</sup> .	72.8	80.6	75.8	76.4	68.5	70.4	64.7	65.8	66.8	72.5	70.3	78.8	86.4	83.5	85
22	Consumer confidence, The Conference Board, 1985=100 (L,L,L)*.	65.9	68.5	63.2	67.6	61.9	58.6	59.2	59.3	63.8	60.5	71.9	79.8	82.6	79.9	86
23 •	Consumer expectations, The Conference Board, 1985=100 (L,L,L)*.	77.4	84.7	77.3	81.1	73.1	69.6	66.8	66.8	72.8	66.7	80.3	91.8	92.6	84.4	92
						11. SAV	ING									
290 295 292	Gross saving, bil.\$, AR	780.2 794.9	762.0			766.7			774.3			7817.8				
95 192 298 ◆	Personal saving, bil.\$, AR	1800	766.9 177.9 –262.8			779.6 208.7 221.5			809.0 179.7 214.4			7824.1 193.4 7—199.7			P 182.0	************
293 +	Personal saving rate, percent	4.0										4.0			P 3.7	
	Total saving law, personal minimum min	4.0	3.9			4.4			3.8			4.0				
		<u> </u>		EY, CRE	DIT, INT	4.4	RATES,	AND STO				4.0				
85 +	Money: Percent chance in money supply M1 (LLL)*	.81	2. MON	.46		EREST F		.95	OCK PRI	CES	.75	.81		.45	.45	P.3
85 ÷ 102 ÷	Money: Percent change in money supply M1 (L,L,L)* Percent change in money supply M2 (L,C,U) Money supply M1, bil. 1987\$ (L,L,L).	.81 .13 .848.9	2. MONI .23 25 822.4	.46 .02 824.2	.66 .09 827.1	4.4 EREST F 1.97 .68 841.4	.83 .19 847.7	.95 .14 854.4	.78 .06 859.1	.89 .22 866.1	7.04 869.8	.81 .31 874.1	r.53 .19 876.8	7.18 7.880.7	′ –.10 ′882.6	P .A
85 + 102 + 105 106 +	Money: Percent change in money supply M1 (L,L,L)* Percent change in money supply M2 (L,C,U) Money supply M1, bil. 1987\$ (L,L,L) Money supply M2, bil. 1987\$ (L,L,L) Velocity of money:	.81 .13 .848.9 2,774.0	2. MONI -23 -25 822.4 2,775.4	.46 .02	.66 .09 827.1	4.4 EREST F 1.97 .68 841.4 2,775.3	.83 .19 847.7 2,778.5	.95 .14	.78 .06 859.1 2,773.1	CES .89 .22	7.04	.81 .31 874.1 2,769.6	7.53 .19 876.8 2,768.5	7.18	710 7882.6 72,764.3	P.A P <b>882</b> P 2,767
85 + 102 + 105 106 +	Money: Percent change in money supply M1 (L,L,L)* Percent change in money supply M2 (L,C,U) Money supply M1, bil. 1987\$ (L,L,L) Money supply M2, bil. 1987\$ (L,L,L) Velocity of money: Ratio, gross domestic product to money supply M1 (C,C,C)	.81 .13 .848.9 2,774.0 5.912	2. MONi .23 25 822.4 2,775.4 6.043	.46 .02 824.2 2,769.3	.66 .09 827.1 2,763.0	1.97 .68 841.4 2,775.3 5.948	.83 .19 847.7 2,778.5	.95 .14 854.4 °2,778.0	.78 .06 .859.1 2,773.1 5.837	.89 .22 .866.1 .2,777.1	7.04 869.8 2,769.6	.81 .31 874.1 2,769.6 5.820	7.53 .19 876.8 2,768.5	7.18 7880.7 72,773.4	r –.10 r 882.6 r 2,764.3 r 5.807	P 882 P 2,767
85 + 102 + 05 106 +	Money: Percent change in money supply M1 (L.L.L)* Percent change in money supply M2 (L.C.U)	.81 .13 .848.9 2,774.0 5.912	2. MONI 25 822.4 2,775.4 6.043 1.502	.46 .02 824.2 2,769.3	.66 .09 827.1 2,763.0	4.4 EREST F 1.97 .68 841.4 2,775.3 5.948 1.528	.83 .19 847.7 2,778.5	.95 .14 .854.4 .72,778.0	.78 .06 .859.1 2,773.1 5.837 1.536	.89 .22 .866.1 .2,777.1	7.04 869.8 2,769.6	.81 .31 874.1 2,769.6 5.820	7 .53 .19 876.8 2,768.5	r.18 r880.7 r2,773.4 r1.541	r = 10 r 882.6 r 2,764.3 r 5.807	P 482 P 2,767
85 ÷ 102 ÷	Money: Percent change in money supply M1 (L.L,L)* Percent change in money supply M2 (L,C,U)	.81 .13 .848.9 2,774.0 5.912	2. MONi .23 25 822.4 2,775.4 6.043	.46 .02 824.2 2,769.3	.66 .09 827.1 2,763.0	4.4 EREST F 1.97 .68 841.4 2,775.3 5.948 1.528	.83 .19 847.7 2,778.5	.95 .14 854.4 °2,778.0	.78 .06 .859.1 2,773.1 5.837	.89 .22 .866.1 .2,777.1	7.04 869.8 2,769.6	.81 .31 874.1 2,769.6 5.820	7.53 .19 876.8 2,768.5	7.18 7880.7 72,773.4	r –.10 r 882.6 r 2,764.3 r 5.807	P 482 P 2,767
85 + 02 + 05   106 + 07   08   93   94	Money: Percent change in money supply M1 (L,L,L)* Percent change in money supply M2 (L,C,U) Money supply M1, bil. 1987\$ (L,L,L) Money supply M2, bil. 1987\$ (L,L,L) Wolocity of money: Ratio, gross domestic product to money supply M1 (C,C,C). Ratio, personal income to money supply M2 (C,L,C) Bank reserves: Free reserves, mil.\$, NSA (L,U,U)‡ Member bank borrowings from the Federal Reserve, mil.\$, NSA (L,L,U). Credit flows: Net change in business loans, bil.\$, AR (L,L,L)	1 .81 .13 .848.9 .2,774.0 5.912 1.528 901 180	2. MONI .23 .25 822.4 2.775.4 6.043 1.502 1,059 45	.46 .02 .824.2 2,769.3 1.513 1,122 91	.66 .09 827.1 2,763.0 1.534 1,023 73	1.97 .88 .841.4 2,775.3 5.948 1.528 875 121 64.40	.83 .19 847.7 2,778.5 1.523 730 181	.95 .14 .854.4 .72,778.0 	.78 .06 .859.1 2,773.1 5.837 1.536 600 352	.89 .22 .866.1 .72,777.1 	1.545 804 2,769.6 1.545 804 285	.81 .31 874.1 2,769.6 5.820 1.550 1,012 89	7.53 .19 876.8 2.768.5 1.557 981 82	7.18 7880.7 72,773.4 71.541 1,375 73	r10 r 882.6 r 2,764.3 r 5.807 1.570 1,070 70	P 4.57 P 1.57 P 9.
85 + 102 + 105 106 +	Money: Percent change in money supply M1 (L.L,L)* Percent change in money supply M2 (L,C,U)	.81 .13 .848.9 2,774.0 5.912 1.528 901 180	2. MONI .23 .25 822.4 2,775.4 6.043 1.502 1,059 45	.46 .02 824.2 2,769.3 1.513 1,122 91	.66 .09 827.1 2,763.0 1.534 1,023 73	1.97 .88 .841.4 2,775.3 5.948 1.528 875 121 64.40	.83 .19 847.7 2,778.5 1.523 730 181	.95 .14 .854.4 .72,778.0 	.78 .06 .859.1 2,773.1 5.837 1.536 600 352	.89 .22 .866.1 '2,777.1 1.535 662 428	1.545 804 2,769.6 1.545 804 285	.81 .31 874.1 2,769.6 5.820 1.550	7.53 .19 876.8 2,768.5 1.557 981 82	7.18 7880.7 72,773.4  71.541 1,375 73	r10 r882.6 r2,764.3 r5.807 1.570 1,070 70	P 4.57 P 1.57 P 9.
85 • 02 • 05 06 • 07 08 93 94 112 • 113 • 11	Money: Percent change in money supply M1 (L.L.L.)* Percent change in money supply M2 (L.C.U) Money supply M1, bil. 1987\$ (L.L.L.) Money supply M2, bil. 1987\$ (L.L.L.) Money supply M2, bil. 1987\$ (L.L.L.)  Velocity of money: Ratio, gross domestic product to money supply M1 (C,C,C). Ratio, personal income to money supply M2 (C,Lg,C) Bank reserves: Free reserves, mil.\$, NSA (L,U,U) ‡ Member bank borrowings from the Federal Reserve, mil.\$, NSA (L,Lg,U). Credit flows: Net change in business loans, bil.\$, AR (L,L,L). Net change in consumer installment credit, bil.\$, AR (L,L,L). Percent change in business and consumer credit outstanding, AR (L,L,L). Funds raised by private nonfinancial borrowers in credit	1 .81 .13 .848.9 .2,774.0 5.912 1.528 901 180	2. MONi  2.3  -25 822.4 2,775.4  6.043 1.502 1,059 45 18.70 43.74	.46 .02 .824.2 2,769.3 1.513 1,122 91	.66 .09 827.1 2,763.0 1.534 1,023 73	1.97 .88 .841.4 2,775.3 5.948 1.528 875 121 64.40	.83 .19 847.7 2,778.5 1.523 730 181 12.50 25.62	.95 .14 .854.4 .72,778.0 	.78 .06 .859.1 2,773.1 5.837 1.536 600 352		1.545 804 2,769.6 1.545 804 285	.81 .31 874.1 2,769.6 5.820 1.550 1,012 89	1.557 981 1.557 981 82 7-34.44	7.18 7880.7 72,773.4 71.541 1,375 73 788.24 776.51	r10 r 882.6 r 2,764.3 r 5.807 1.570 1,070 70	P 4.57 P 1.57 P 9.
85 • 102 • 05 106 • 107 08 93 94 1112 • 113 •	Money: Percent change in money supply M1 (L.L.L)* Percent change in money supply M2 (L,C,U)	1 81 13 848.9 2,774.0 5.912 1.528 901 180 1.09 48.99	2. MONi  2.3  -25 822.4 2,775.4  6.043 1.502 1,059 45 18.70 43.74	.46 .02 824.2 2,769.3 1.513 1,122 91 -72.79 34.84	.66 .09 827.1 2,763.0 1.534 1,023 73 45.11 24.74	4.4  EREST F  1.97 .68 .841.4 2,775.3  5.948 1.528 875 121 64.40 -22.80 369,424	.83 19 847.7 2,778.5 1.523 730 181 12.50 25.62	.95 1.4 854.4 72,778.0 1.518 845 244 58.39 60.44	78		1.545 809.8 2,769.6 1.545 804 285 -22.73 84.56	.81 .31 .874.1 2,769.6 5.820 1.550 1.012 .89 -2.98 83.28	1.557 981 1.557 981 82 7-34.44	1.880.7 2,773.4 1.375 73 2.88.24 76.51	r10 r 882.6 r 2,764.3 r 5.807 1.570 1,070 70	P 4.57 P 1.57 P 9 P 1

NOTE.—The following current high values were reached before February 1993: May 1991—BCI-106 (2,865.8); July 1991—BCI-93 (345); August 1991—BCI-94 (764); December 1991—BCI-62 index (113.0) and BCI-62 smoothed (3.0); October 1992—BCI-111 (3.0); and December 1992—BCI-51 (3.689.9), BCI-52 (4,391.8), BCI-53 (659.1), BCI-6

		Year	Γ					4000							4004	
Series no.	Series title and timing classification	1993	Feb.	Mar.	Apr.	May	June	1993 July	Aug.	Sept.	Oct	Nov.	Dec.	Jan.	1994 Feb.	Mar.
		12. MOI	NEY, CR	EDIT, IN	ITERES	Γ RATES	, AND S	TOCK PI	RICES—	Continue	===== ∌d					
66	Outstanding debt: Consumer installment credit outstanding, mil.\$	790,082	747,228	750,131	752,193	750,293	752,428	757,465	762,503	768,573	775,620	782,561	790.082	796,458	P 800,000	
72	(Lg,Lg,Lg) ◊. Commercial and industrial loans outstanding, mil.\$,	429,399	425,840	419,774	423,533	428,900	429,942	434,808	434,979	434,943	433,049	432,801	r 429,931	r 437,284	·	P 431,456
101 +	(Lg,Lg,Lg). Commercial and industrial loans outstanding, mil. 1987\$	371,320	369,653	363,441	365,115		370,002	375,158	376,605	376,574	373,963	374,072	373,204	7377,946		P 370,667
95 +	(Lg,Lg,Lg). Ratio, consumer installment credit outstanding to personal income, percent (Lg,Lg,Lg).	14.13	14.24	14.18	14.02		14.00	14.12	14.04	14.13	14.16	14.20	14.24	14.48	₽ 14.29	
119 ÷ 114 ÷ 116 ÷ 115 ÷ 117	Interest rates (percent, NSA): Federal funds rate (L,Lg,Lg)* Discount rate on new 91-day Treasury bills (C,Lg,Lg)* Yield on new high-grade corporate bonds (Lg,Lg,Lg)* Yield on long-term Treasury bonds (C,Lg,Lg)* Yield on unnicipal bonds, 20-bond average (U,Lg,Lg)* Secondary market yields on FHA mortgages (Lg,Lg,Lg).	3.02 3.02 7.35 6.46 5.60 7.46	3.03 2.95 7.73 6.89 5.87 7.55	3.07 2.97 7.39 6.65 5.64 7.57	2.96 2.89 7.48 6.64 5.76 7.56	7.52 6.68 5.73	3.04 3.10 7.48 6.55 5.63 7.52	3.06 3.05 7.35 6.34 5.57 7.51	3.03 3.05 7.04 6.18 5.45 7.02	3.09 2.96 6.88 5.94 5.29 7.03	2.99 3.04 6.88 5.90 5.25 7.08	3.02 3.12 7.22 6.25 5.47 7.51	2.96 3.08 7.28 6.27 5.35 7.52	3.05 3.02 7.16 6.24 5.31 7.05	3.25 3.21 7.27 6.44 5.40 7.59	3.34 3.52 7.64 6.90 5.91 8.57
109 <b>♦</b> 19 <b>♦</b>	Average prime rate charged by banks (Lg,Lg,Lg)*	6.00 451.41	6.00 441.70	6.00 450.16	6.00 443.08	1 1	6.00 448.06	6.00 447.29	6.00 454.13	6.00 459.24	6.00 463.90	6.00 462.89	6.00 465.95	6.00 <b>472.99</b>	6.00 471.58	6.06 463.81
	13. NATIONAL DEFENSE															
525 548 557	Defense Department prime contract awards, mil.\$	76,649 74.8	9,579 6,361 77.9	11,628 7,411 76.8	10,231 6,853 76.9	9,317 5,434 75.6	10,169 5,788 74.9	9,656 7,231 74.6	11,785 6,598 74.0	11,359 6,446 73.7	5,304 72.7	5,172 72.5	5,239 r71.5	10,247 7,738 770.9	* 9,343 * 6,133 * 69.8	P 5,107 P 69.1
570 564 ◆	equipment, 1987=100. Employment, defense products industries, thous Federal Government purchases, national defense, bil.\$, AR	950 303.4	992 304.8	982	975	1 1	954	943	933 301.9	929	922	912 299.2	899	890	P 884 P 292.8	
	504 ♦ Federal Government purchases, national detense, DLS, AH 303.4 304.6															
602	Exports, excluding military aid shipments, mil.\$	464,980	36,928	38,894	38,479	38,930	37,639	37,109	38,050	38,885	40,092	40,236	42,234	<sup>7</sup> 39,306	37,899	
604 606 612 614	Exports of domestic agricultural products, mil.\$  Exports of nonelectrical machinery, mil.\$  General imports, mil.\$	41,807 99,711 580,511 49,926	3,424 8,090 44,832 4,387	3,357 8,371 49,347 4,813	3,498 8,119 48,660 4,958	47,306	3,537 8,094 49,698 4,651	3,405 8,169 47,534 4,149	3,350 8,513 48,097 3,745	3,540 8,322 49,506 3,759	3,565 8,288 50,990 3,888	3,458 8,655 49,914 3,613	3,777 8,935 49,601 3,406	3,497 8,435 *49,475 2,951	3,118 8,363 50,262	
616 618 + 620 +	Imports of petroleum and petroleum products, mil.\$	80,672 456,766 589,244	6,811 111,480 140,805	7,048	6,945	6,619 113,067 147,465	6,819	6,090	6,691 111,935 147,907	6,861	6,966	6,880 # 120,284 # 153,067	6,943	6,212	6,801	
622	Balance on merchandise trade, mil.\$1	-132,478	-29,325			-34,398			-35,972			P -32,783		••••••		
	Industrial production indexes (1987=100):		1	15. II	VIERNA	TIONAL	COMPA	RISONS	i	7						
47 ÷ 721 ÷	United StatesOECD, European countries 2	110.9 107	109.9 107	110.0 107	110.5 105		110.4 106	110.9 107	111.1 107	111.3 107	111.9 108 107.4	112.8 108	114.0 107	r114.4	r 115.0	P 115.6
728 <b>◆</b> 725 <b>◆</b>	JapanFederal Republic of Germany	111.7 107	113.5 106	116.5 7 107	113.4 *106	107	112.5 107	111.9 106	110.9 108	113.3 108	107	109.8 * 107	108.0 7 107	109.1 7105	P 107	
726 ◆ 722 ◆	France	107 105	108 104	107 103	106 104	105	106 104	107 106	107 106	7 107 106	106 107	107 107	106 *106	P 106 P 107		
727 <b>•</b> 723 <b>•</b>	ItalyCanada	104.4 103.2	106.8 101.7	105.2 103.2	100.7 102.2	105.1 7102.0	102.8 103.7	105.1 102.7	103.4 103.5	103.1 104.4	105.3 7 104.4	106.9 7105.1	102.5 104.6	r 105.1	P 104.5	
320	Consumer price indexes (1982-84=100): United States, NSA	144.5	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7	145.8	145.8	146.2	146.7	147.2
738	Japan, NSA	2.6 118.5	3.1 117.4	2.8 117.7	2.7 118.5		2.2 118.5	2.2 118.8	2.4 119.2	2.6 119.3	2.4 119.2	2.4 118.5	2.9 118.6	118.7	118.7	
735	Percent change over 6-month span, AR Federal Republic of Germany, NSA Percent change over 6-month span, AR	125.6	1.0 124.3	1.0 124.7	2.6 125.1	2.7 125.5	2.0 125.7 2.9	1.0 126.0	1.0 126.0	.5 126.1	2 126.4 2.9	5 126.7	126.9	128.0	128.5	128.7
736	France, NSA	3.5 143.5	4.5 142.4	4.6 143.1	3.8 143.2	143.5	2.9 143.4	143.5	126.0 2.9 143.5	2.7 144.0	144.3	144.4	3.5 144.3	144.5	144.9	145.2
732	Percent change over 6-month span, AR United Kingdom, NSA	1.9 165.3	2.7 163.1	2.6 163.7	165.2	165.8	1.3 165.7	165.3	1.7 166.0	1.8 166.7	1.5 166.6	166.4	166.7	166.0	167.0	167.4
737	Percent change over 6-month span, AR	1.9 186.4	.9 183.6	.7 184.0	2.7 184.7	185.4	2.3 186.4	2.3 187.1	2.0 187.2	2.6 187.5	2.4 188.6	2.4 189.5	2.2 189.5	190.6	191.4	191.8
733	Percent change over 6-month span, AR	4.2 147.9	3.8 147.4	4.1 147.3	4.6 147.3	5.1	5.0 147.6	4.7 148.0	4.5 148.1	3.8 148.2	3.8 148.4	3.4 149.1	3.5 148.8	148.8	147.7	147.6
•	Percent change over 6-month span, AR	1.1	1.1	.3	1.0	1.4	2.1	1.9	2.2	2.6	1.5	9	-1.6		***************************************	
19 <b>♦</b> 748 <b>♦</b>	United States*	491.0 1,380.4	480.5 1,171.5	489.7 1,233.8	482.0 1,409.7	484.3 1,471.1	487.4 1,462.1	486.6 1,468.4	494.0 1,509.9	499.6 1,504.5	504.6 1,489.2		506.9 1,306.9	514.5 1,374.5	513.0 1,444.0	
745 <b>♦</b> 746 <b>♦</b>	Federal Republic of Germany*	312.2 969.7	291.9 908.6	296.8 945.8	293.6 •938.8	286.1 902.3	293.3 907.8	311.6 954.3	325.3 1,021.0	322.8 1,006.6	337.9 1.047.2	345.9 1,023.6	362.9 1,111.7	374.1 • 1,146.0	372.7 ₽1,141.6	P 374.0 P 1,096.0
742 + 747 +	United Kingdom*	1,373.6 575.2	1,324.5 528.2	1,351.0 534.4	1,324.5 544.0		1,339.0 559.7		1,404.6 634.6	1,412.4 633.2	1,438.9 617.1	1,429.9 575.1	1,507.5 622.9	1,582.8 646.5	1,582.2	p 1,526.4 p 696.5
743 •	Canada*	441.1	390.0	407.1	428.2	437.4	448.2		467.5	450.9	480.9	472.3	488.3	514.7	499.9	489.2
750 ♦	Exchange rates:  Exchange value of U.S. dollar, index: March 1973=100,  NSA 3*.  Foreign currency per U.S. dollar (NSA):	93.18	93.82	93.65	90.62	90.24	91.81	94.59	94.32	92.07	93.29	95.47	95.73	96.54	95.79	94.35
758 <b>◆</b> 755 <b>◆</b>	Japan (yen)*	111.08 1.6545	120.76 1.6414	117.02 1.6466	112.41 1.5964	110.34 1.6071	107.41 1.6547	107.69 1.7157	103.77 1.6944	105.57 1.6219	107.02 1.6405	107.88 1.7005	109.91 1.7105	111.44 1.7426	106.30 1.7355	105.10 1.6909
756 ÷ 752 ÷	France (franc)* United Kingdom (pound)*	5.6669	5.5594 .6947	5.5944	5.3984	5.4180 .6461	5.5700 .6630	5.8464 .6687	5.9298	5.6724 .6558	5.7541	5.9069 .6753	5.8477 .6706	5.9207	5.8955 .6760	5.7647 .6703
757 ÷ 753 ÷	Italy (lira)*	1,573.41 1.2902	1,550.43 1,2602	1,591.35			1,505.05 1,2789	1,586.02	1,603.75 1.3080	1,569.10	1,600.93	1,666.31	1,687.17	1,699.45	1,685.96	1,666.63
100 +	Canada (dollar)*	1.2902	1.2002	1.2471 16. AL		IVE CON				1.3215	1.3263	1.3174	1.3308	1.3173	1.3424	1.3644
990 +	CIBCR long-leading composite index, 1967=100.4	259.0 224.1	257.6	257.9	255.1 221.9		257.9	258.6 222.2	258.9	259.1	261.1	263.0	266.5	r 266.1	, 267.2	P 265.9
991 •	CIBCR short-leading composite index, 1967=100 4	224.1	223.1	222.4	221.9	r 219.5	223.1	222.2	223.6	226.2	226.5	263.0 °230.0	229.6	<sup>,</sup> 232.4	233.8	P 237.1

See footnotes on page C-6.

#### FOOTNOTES FOR PAGES C-1 THROUGH C-5

 a
 Anticipated.
 NSA

 AR
 Annual rate.
 p

 c
 Corrected.
 r

 ©
 Copyrighted.
 →

 e
 Estimated.
 §

\* Later data listed in notes. ♦ End of period.

L,C,Lg,U Cyclical indicator series are classified as L (leading), C (coincident), Lg (lagging), or U (unclassified) at reference cycle peaks, troughs, and overall. Series classifications are shown in parentheses following the series titles.

‡ Cyclical indicator series denoted by ‡ are inverted (i.e., the sign is reversed) for cyclical analysis calculations, including classifications, contributions to composite indexes, and current high values.

Not seasonally adjusted.

Graph included for this series.

Major revision-see notes.

Preliminary

Revised.

† Cyclical indicator series denoted by † are smoothed by an autoregressive-moving-average filter developed by Statistics Canada.

For information on composite indexes and other concepts used in this section, see "Business Cycle Indicators: Upcoming Revision of the Composite Indexes" in the October 1993 Survey of Current Business and "The Composite Index of Coincident Indicators and Alternative Coincident Indexes" in the June 1992 Survey.

References to series in this section use the prefix "BCI-" followed by the series number. Unless otherwise noted, series are seasonally adjusted.

Percent change data are centered within the spans: 1-month changes are placed in the ending month, 3-month changes are placed in the 3d month, 6-month changes are placed in the 4th month, 1-quarter changes are placed in the ending quarter, and 4-quarter changes are placed in the 3d quarter.

Diffusion indexes are defined as the percent of components rising plus one-half of the percent of components unchanged. Diffusion index data are centered within the spans: 1-month indexes are placed in the ending month and 6-month indexes are placed in the 4th month.

High values reached by cyclical indicators in the expansion following the last reference cycle trough (March 1991) are shown in boldface type; high values reached prior to the

High values reached by cyclical indicators in the expansion following the last reference cycle trough (March 1991) are shown in boldface type; high values reached prior to the period shown in the table are listed at the bottom of each page. For inverted series, low values are indicated as highs.

Sources for series in this section are shown on pages C-30 and C-31.

#### Page C-1

- \* Preliminary April 1994 values: BCI-32 = 57.6, BCI-19 = 447.23, and BCI-109 = 6.34.
- Data include initial claims made under the July 1992 Emergency Unemployment Compensation amendments. Data exclude Puerto Rico, which is included in figures published by the source agency.
- Copyrighted. This series may not be reproduced without written permission from the University of Michigan, Survey Research Center, P.O. Box 1248, Ann Arbor, MI 48106-1248.
  - 3. Excludes BCI-57, for which data are not available.
  - 4. Excludes BCI-77 and BCI-95, for which data are not available.
- 5. Data beginning January 1994 are based on the revised Current Population Survey and are not directly comparable with data for earlier periods.
- 6. The wages and salaries portion of this series has been adjusted to smooth yearend 1992 bonus payments that are in the revised national income and product accounts data. The bonus payments were too large to be adequately dealt with by the autoregressive-moving-average filter used to smooth this series.

#### Page C-2

- \* Preliminary April 1994 values: BCI-32  $\approx$  57.6; anticipated 2d quarter 1994 values: BCI-61  $\approx$  624.99 and BCI-100  $\approx$  601.46.
  - 1. See footnote 5 for page C-1.
- Data include initial claims made under the July 1992 Emergency Unemployment Compensation amendments. Data exclude Puerto Rico, which is included in figures published by the source agency.
  - 3. Data exclude Puerto Rico, which is included in figures published by the source agency.
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#### Page C-3

- \* Preliminary April 1994 value: BCI-23 = 280.9.
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#### Page C-4

- \* Preliminary April 1994 values: BCI-122 = 91.7, BCI-123 = 95.6, and BCI-85 = 0.12.
- 1. See footnote 6 for page C-1.
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- Copyrighted. This series may not be reproduced without written permission from the American Bankers Association, 1120 Connecticut Avenue, NW, Washington, DC 20036.

#### Page C-5

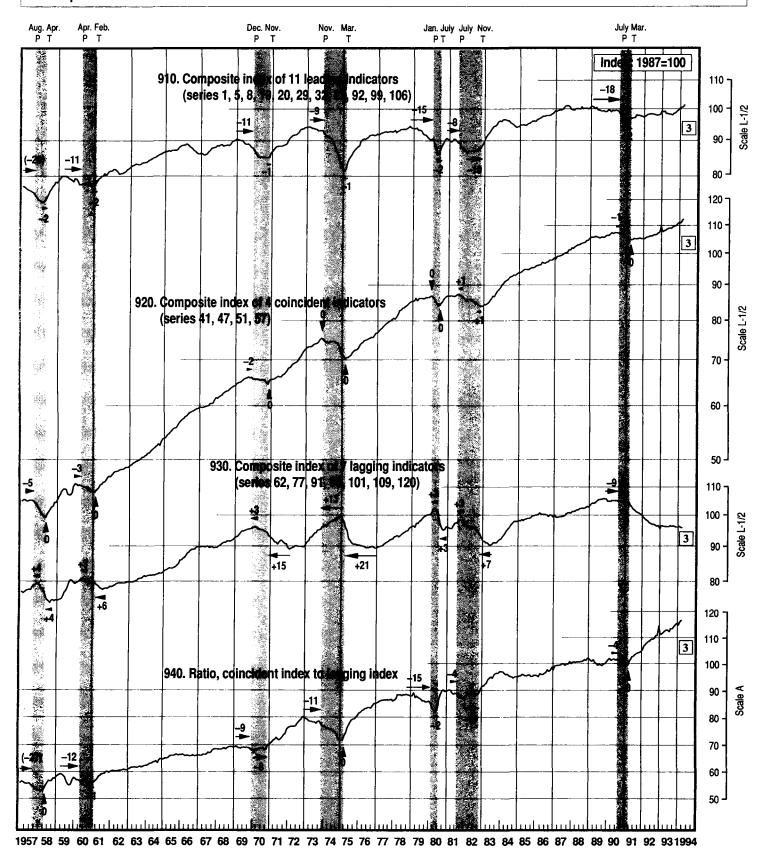
- \* Preliminary April 1994 values: BCI-119 = 3.55, BCI-114 = 3.70, BCI-116 = 7.94, BCI-115 = 7.28, BCI-117 = 6.25, BCI-109 = 6.34, BCI-19 (1941-43=10) = 447.23, BCI-19 (1967=100) = 486.5, BCI-748 = 1,452.0, BCI-745 = 388.2, BCI-746 = 1,071.4, BCI-742 = 1,501.9, BCI-747 = 902.5, BCI-743 = 482.2, BCI-750 = 94.77, BCI-758 = 103.80, BCI-755 = 1.7069, BCI-756 = 5.8433, BCI-752 = 0.6777, BCI-757 = 1.633.34, and BCI-753 = 1.3844.
- Balance of payments basis: Excludes transfers under military grants and Department of Defense sales contracts (exports) and Department of Defense purchases (imports).
- 2. Organisation for Economic Co-operation and Development.
- 3. This index is the weighted-average exchange value of the U.S. dollar against the currencies of the other G-10 countries plus Switzerland. Each country is weighted by its 1972–76 global trade. For a description of this index, see the August 1978 Federal Reserve Bulletin (p. 700).
- 4. This index is compiled by the Center for International Business Cycle Research (CIBCR), Graduate School of Business, Columbia University, New York, NY 10027.

#### Notes for Pages C-7 Through C-27

The following notes explain general features of the charts that appear in this section:

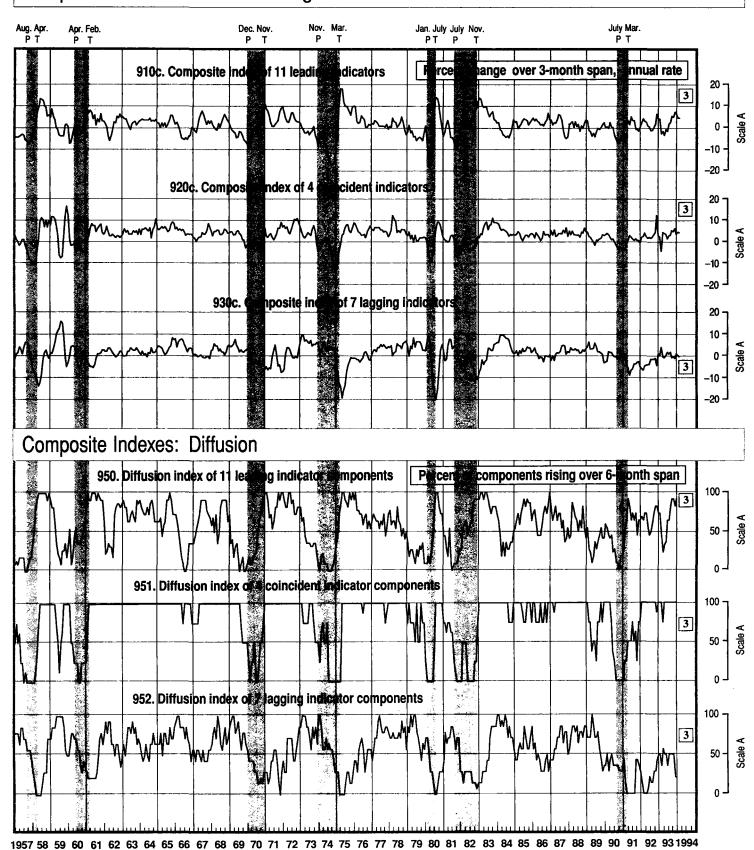
- Business cycle peaks (P) and troughs (T), as designated by the National Bureau of Economic Research, Inc., are indicated at the top of each chart. The shaded areas represent recessions.
- For each series classified as a cyclical indicator, the timing classifications at peaks, at troughs, and overall are shown in a box adjacent to the title. (L = leading, C = coincident, Lg = lagging, U = unclassified.) A complete list of series titles and sources is shown on pages C-30 and C-31.
- Arithmetic scales are designated "Scale A." On the same arithmetic scale, equal vertical distances represent equal differences in data. (For example, the vertical distance from 10 to 15 is the same as the distance from 100 to 105.)
- Logarithmic (log) scales are designated L-1, L-2, or L-3 to indicate their relative size. On log scales of the same size, equal vertical distances represent equal percentage changes. (For
- example, the vertical distance from 10 to 15 is the same as the distance from 100 to 150.) Compared with an L-1 scale, the same percentage change covers half the distance on an L-2 scale and one-third the distance on an L-3 scale.
- Data are monthly unless otherwise indicated. Quarterly data are indicated by a "Q" following the series title.
- Some series include a centered moving average, which is shown as a heavy line superimposed on the actual monthly data.
- Parallel lines across a plotted series indicate a missing data value, change in definition, or other significant break in continuity.
- The box near the end of each plotted series indicates the latest data month (Arabic numeral) or quarter (Roman numeral) shown or, for series computed over a span of time (diffusion indexes and rates of change), the latest data period used in computing the series.

## **Composite Indexes**

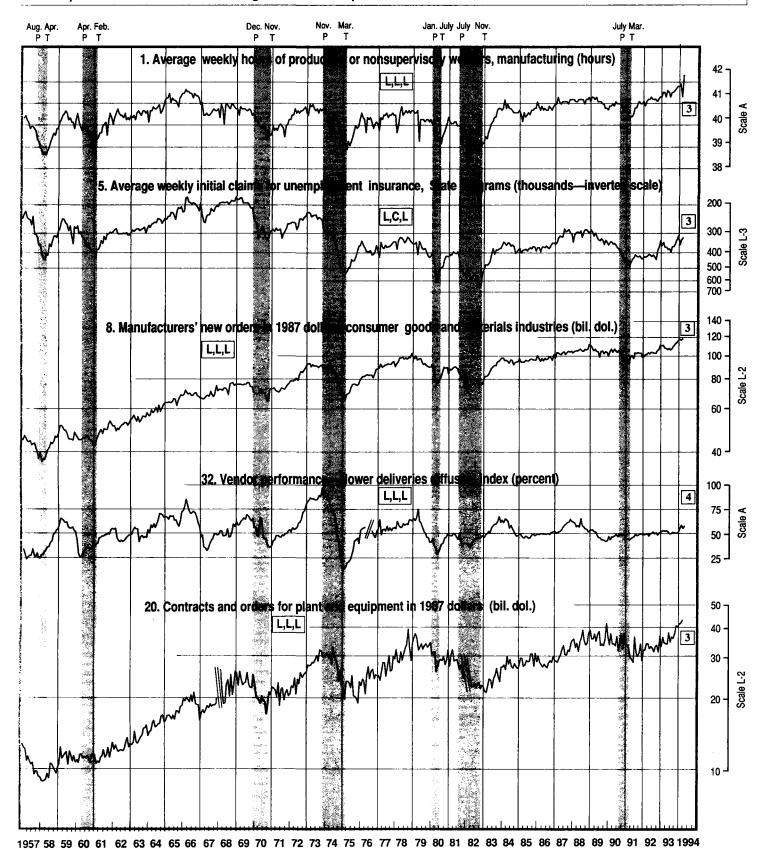


Note.—The numbers and arrows indicate length of leads (-) and lags (+) in months from business cycle turning dates. Current data for these series are shown on page C-1.

Composite Indexes: Rates of Change

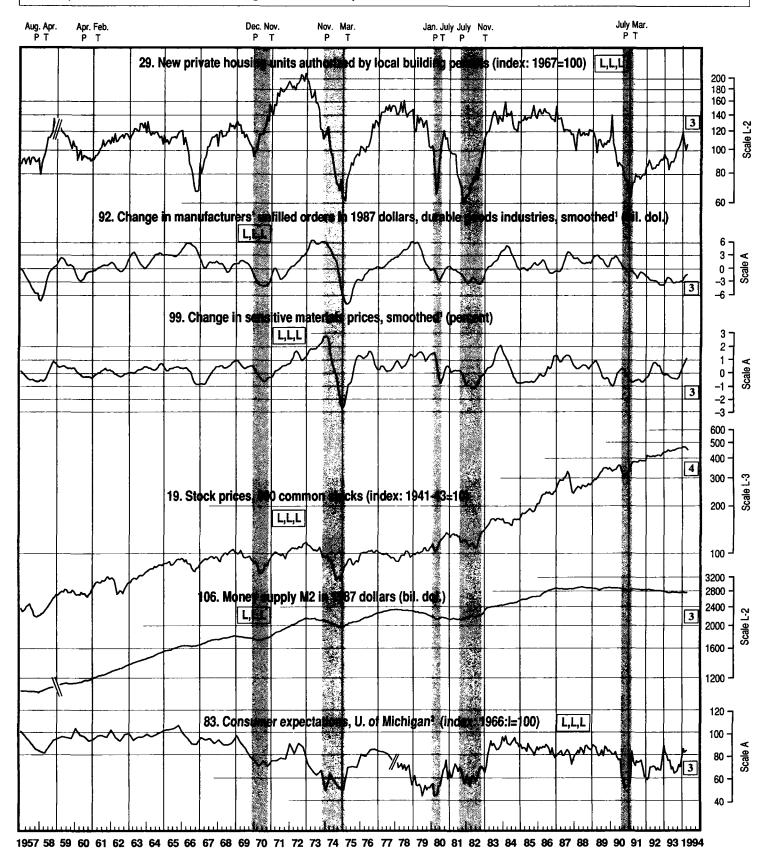


# Composite Indexes: Leading Index Components



Note.—Current data for these series are shown on page C-1.

# Composite Indexes: Leading Index Components—Continued

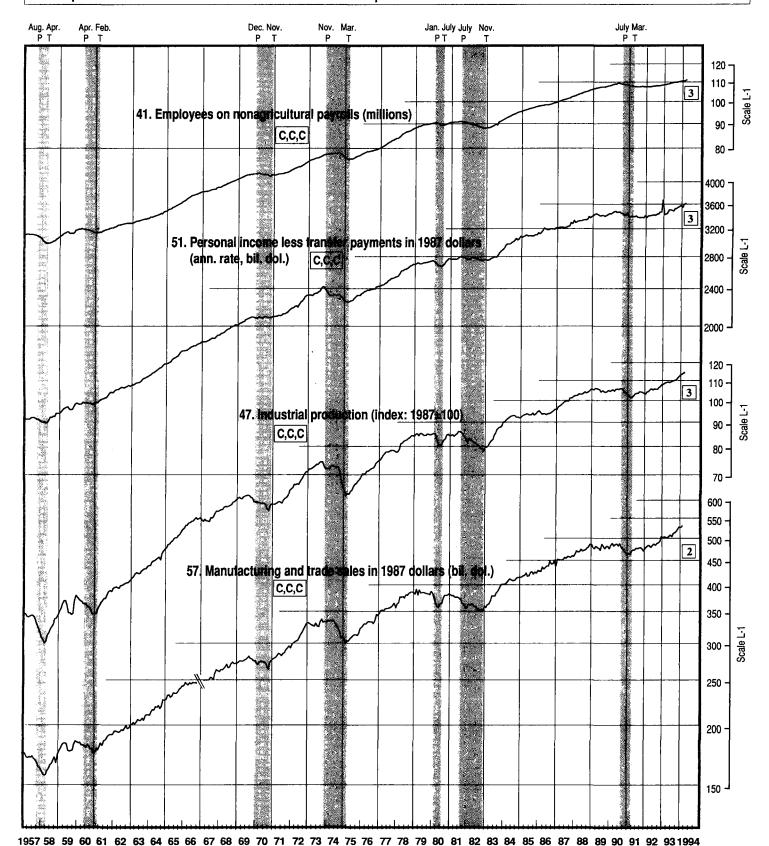


<sup>1.</sup> This series is smoothed by an autoregressive-moving-average filter developed by Statistics Canada.

Note.—Current data for these series are shown on page C-1.

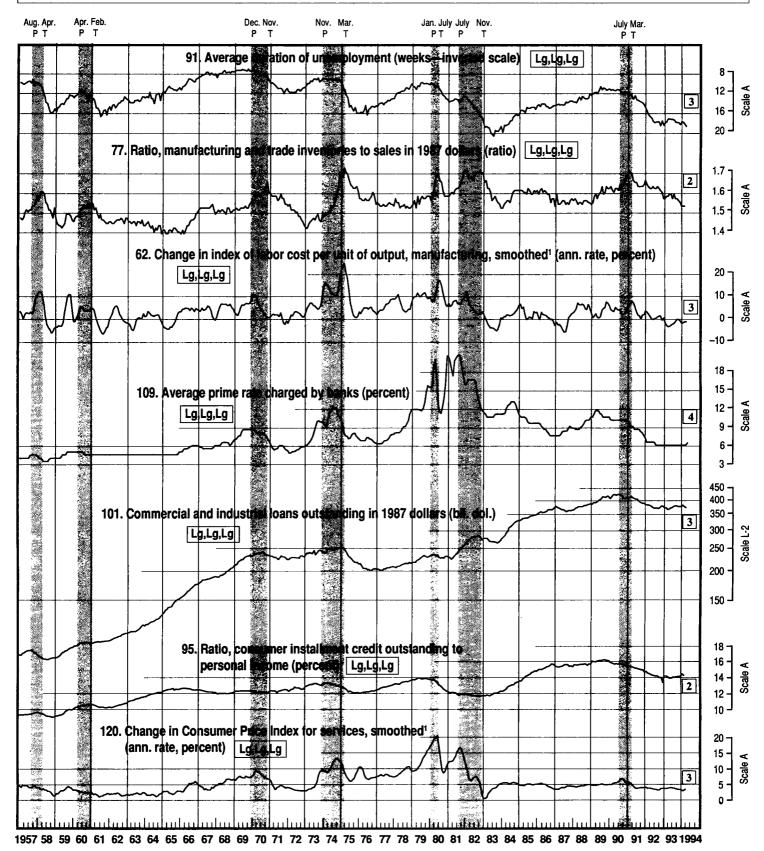
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# Composite Indexes: Coincident Index Components



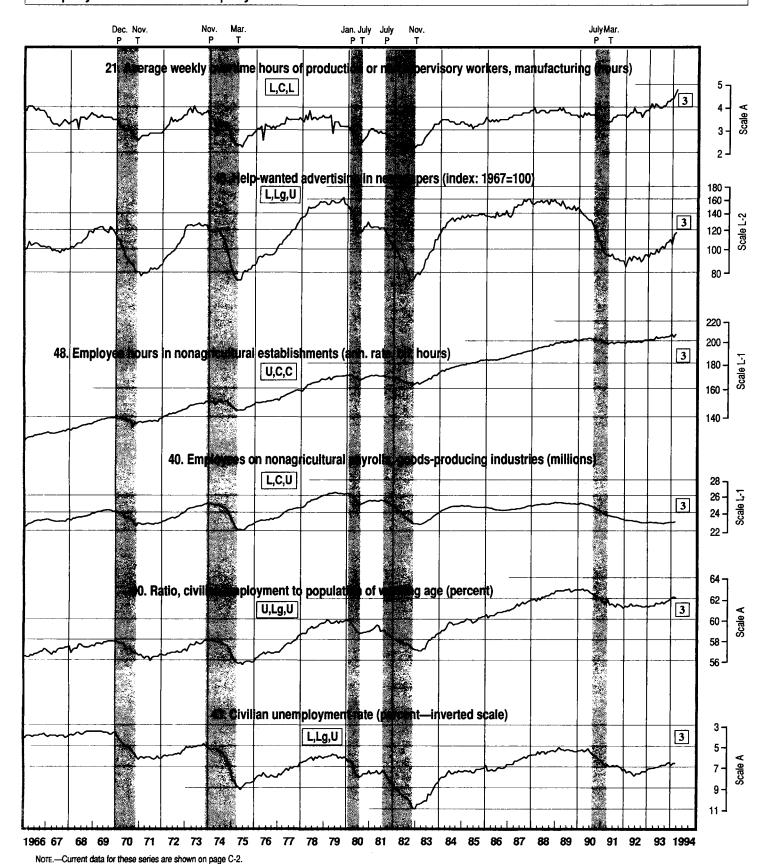
Note.—Current data for these series are shown on page C-1.

Composite Indexes: Lagging Index Components

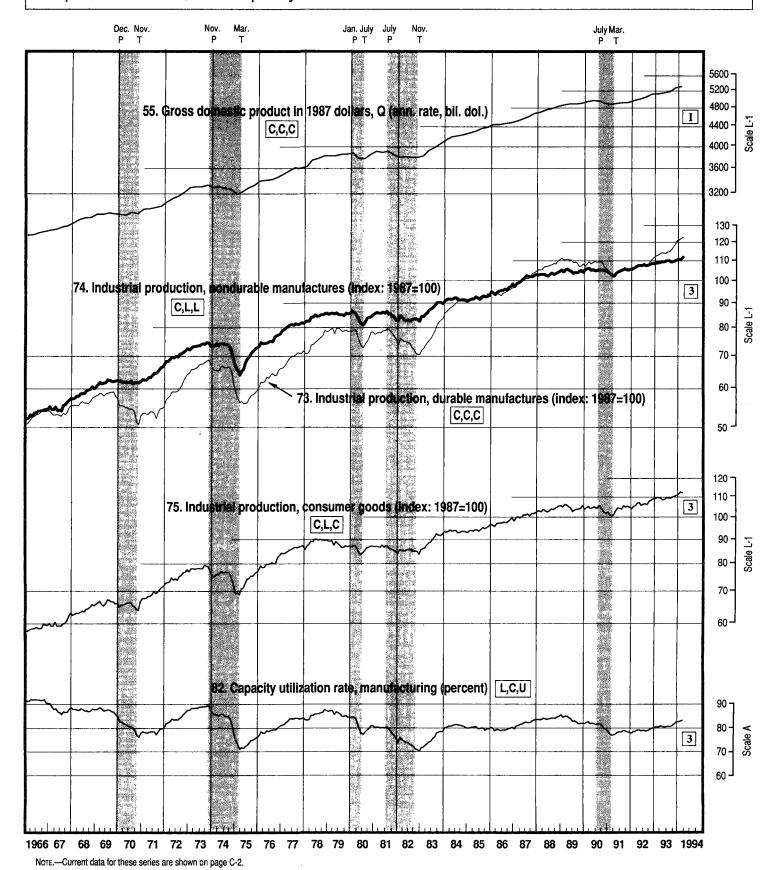


<sup>1.</sup> This series is smoothed by an autoregressive-moving-average filter developed by Statistics Canada Note.—Current data for these series are shown on page C-1.

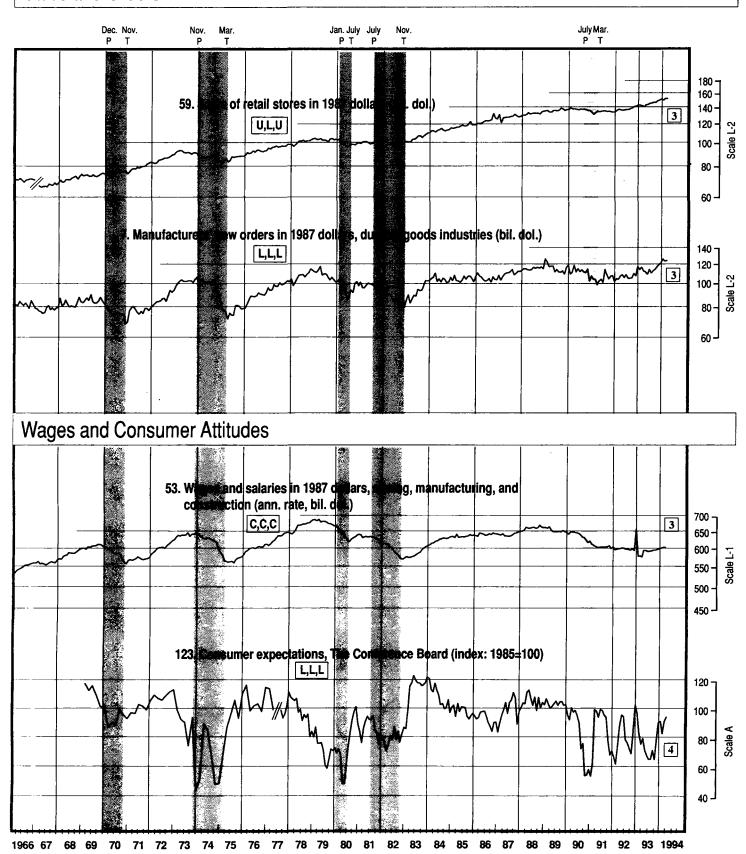
### **Employment and Unemployment**



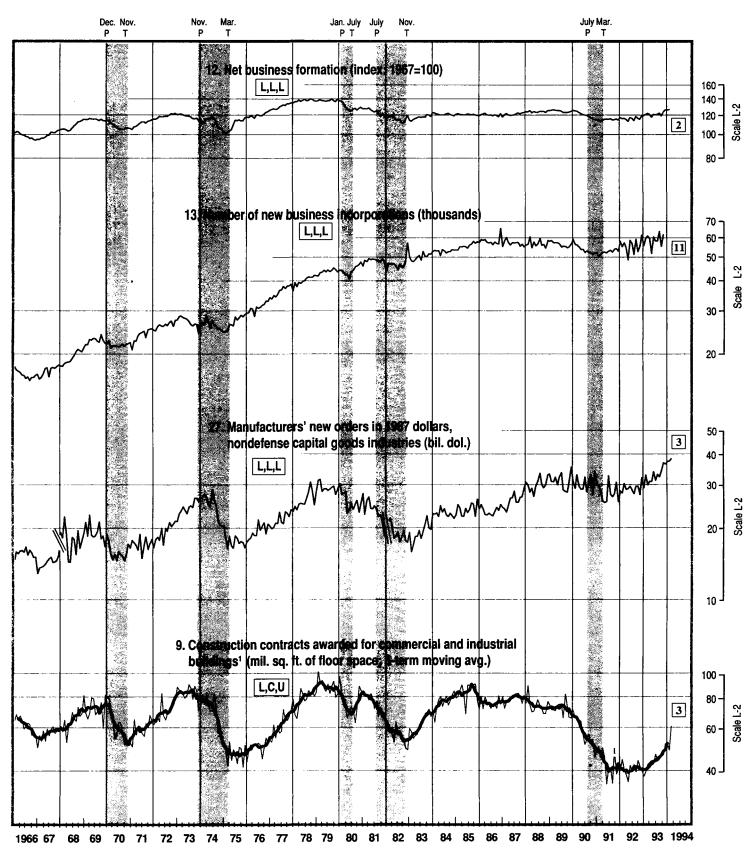
# Output, Production, and Capacity Utilization



#### Sales and Orders

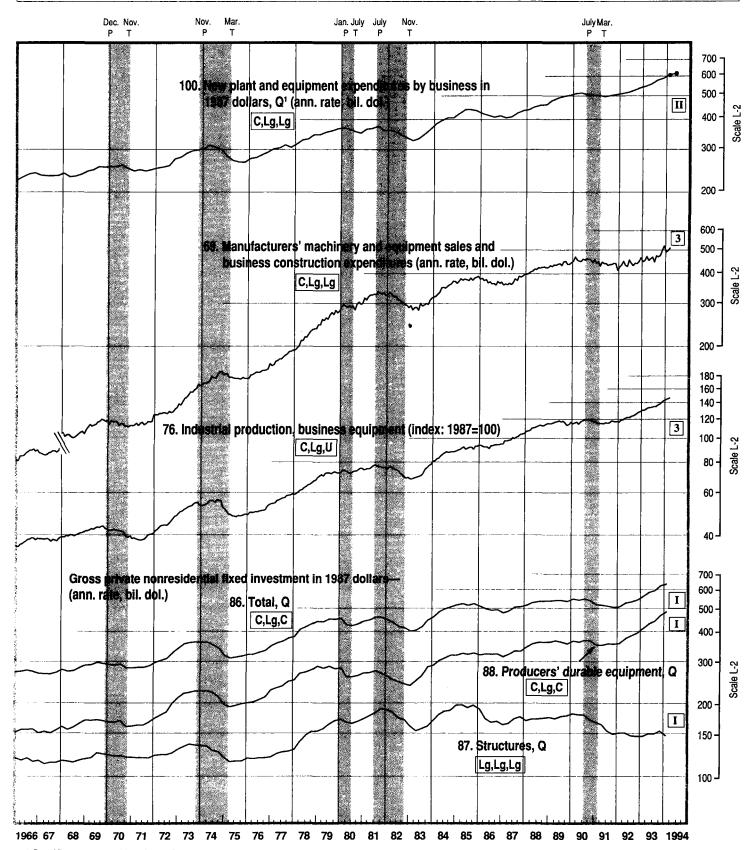


## **Fixed Capital Investment**



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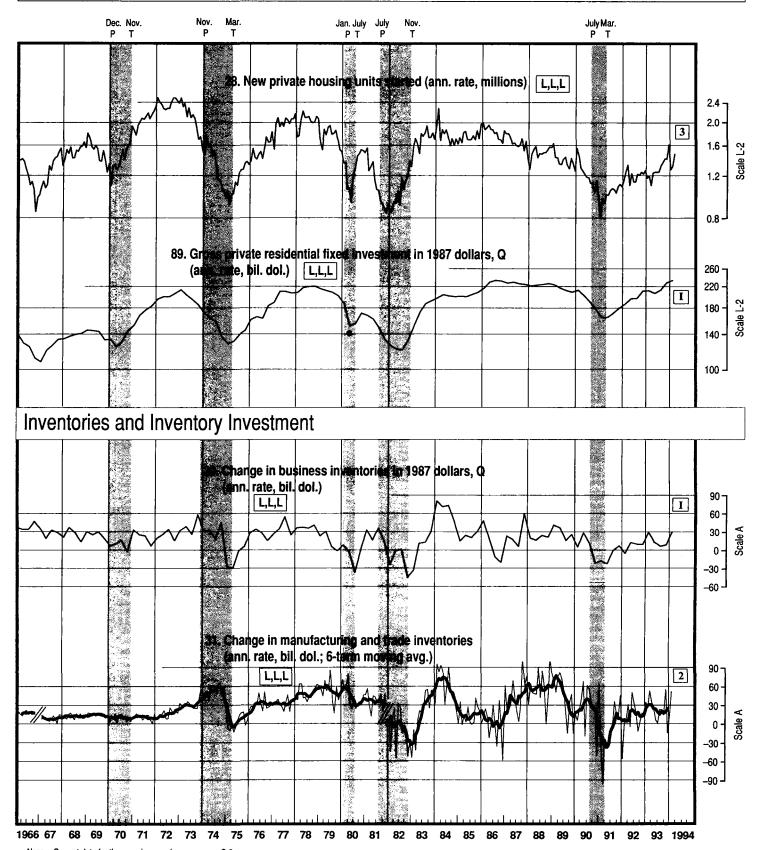
# Fixed Capital Investment—Continued



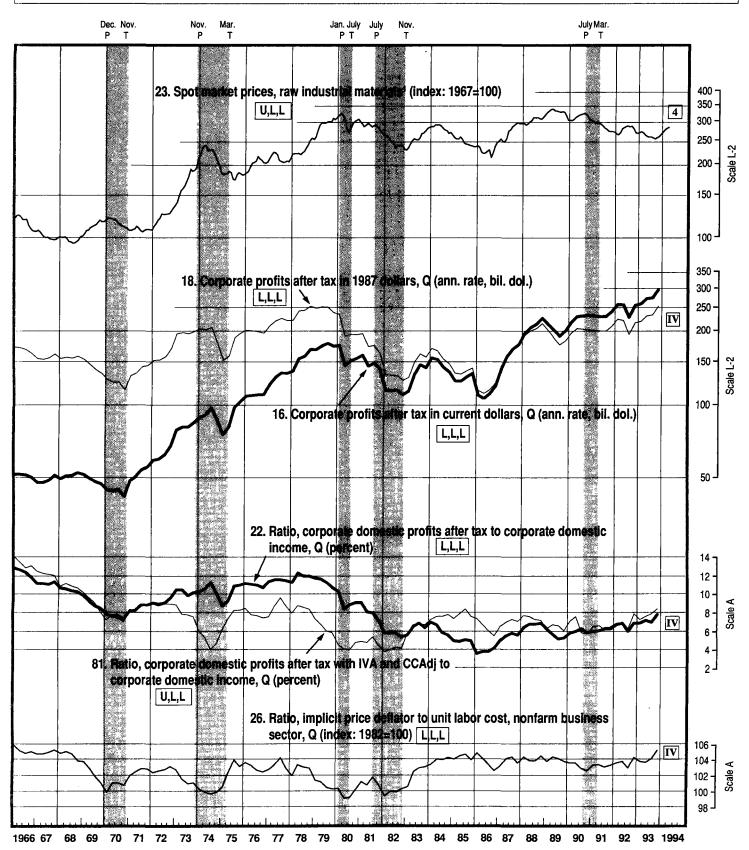
1. Dotted line represents anticipated expenditures.

Note.—Current data for these series are shown on pages C-2 and C-3.

# Fixed Capital Investment—Continued

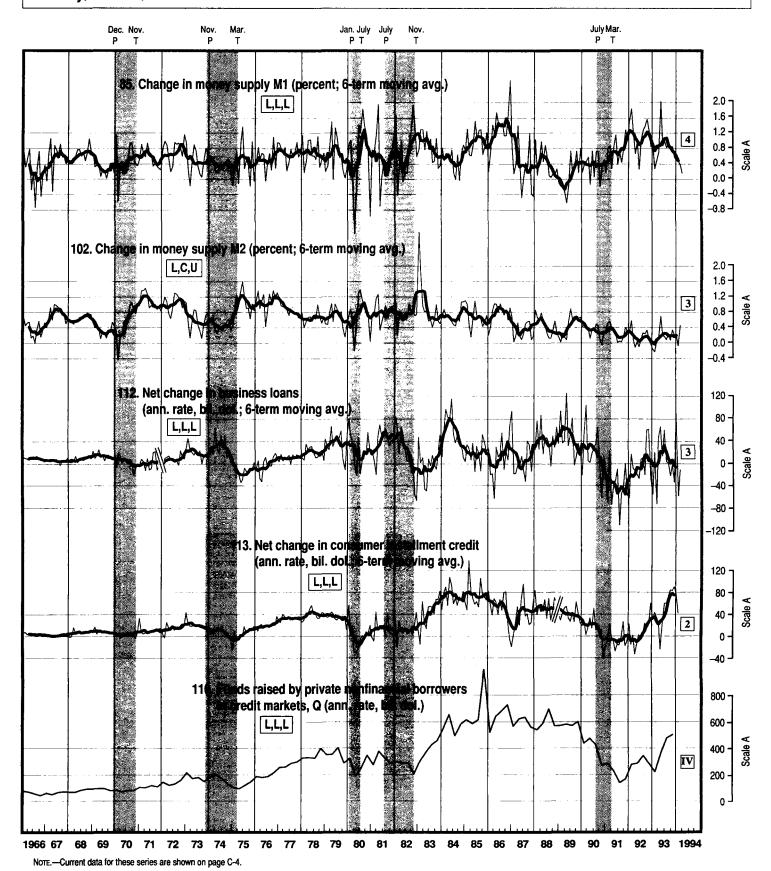


#### **Prices and Profits**

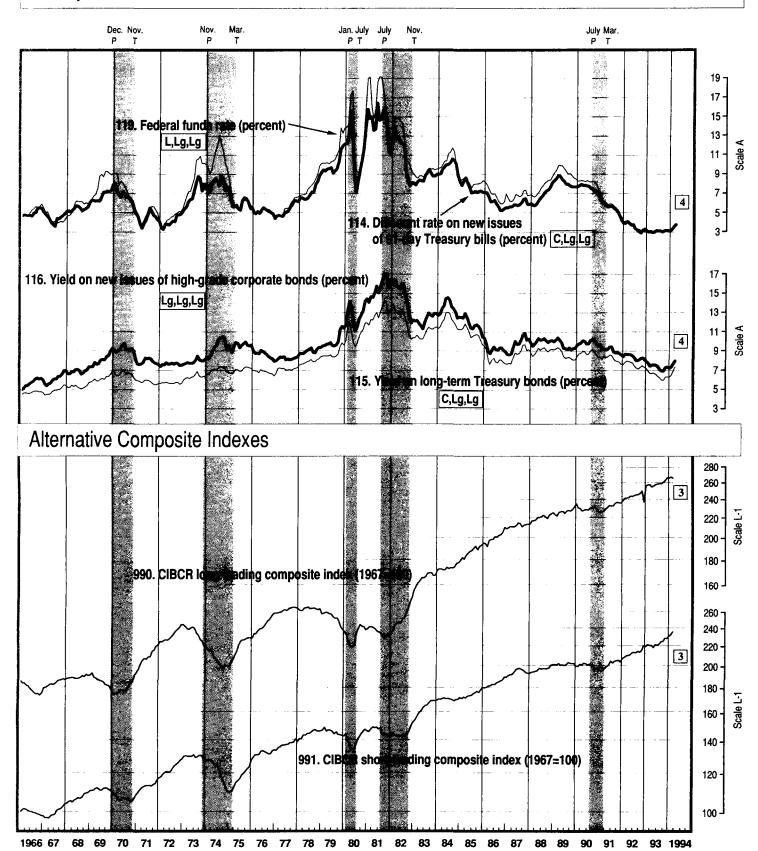


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Money, Credit, and Interest Rates

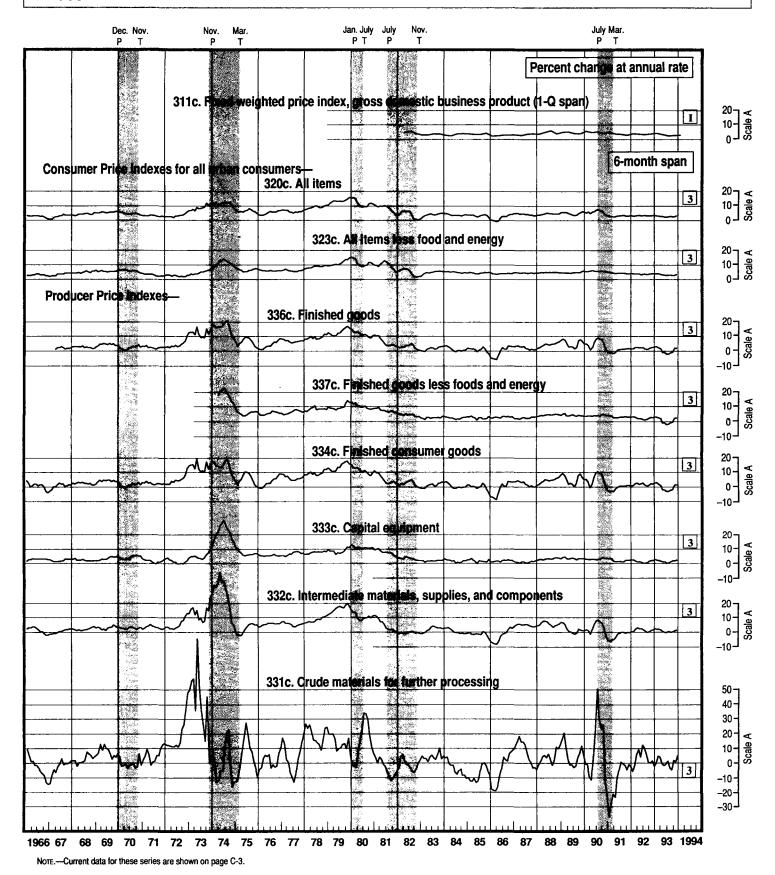


# Money, Credit, and Interest Rates-Continued

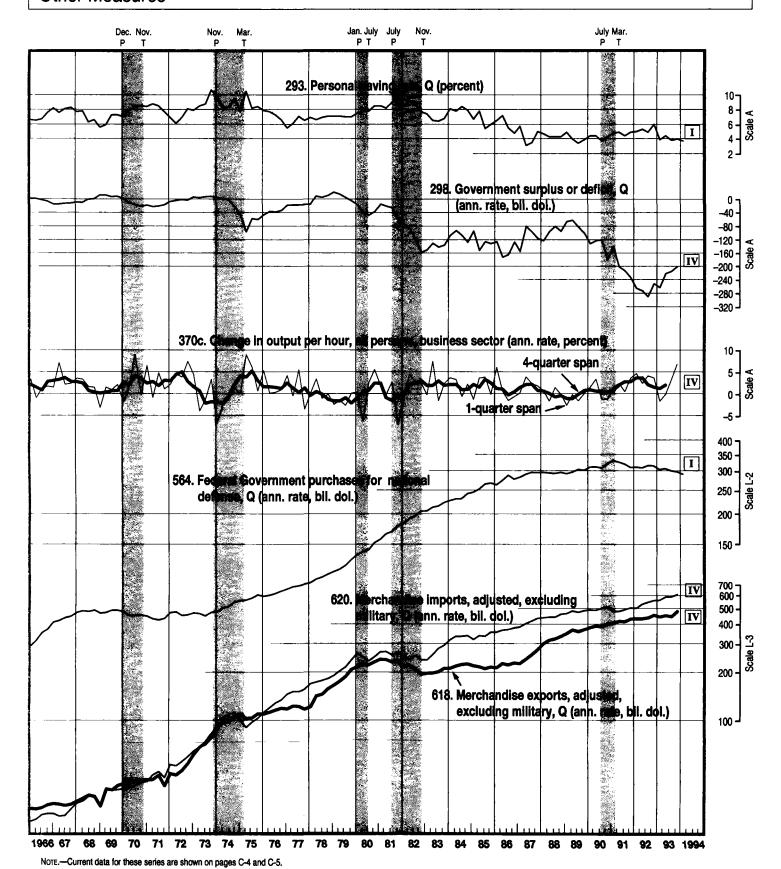


CIBCR Center for International Business Cycle Research (Columbia University). Note.—Current data for these series are shown on page C-5.

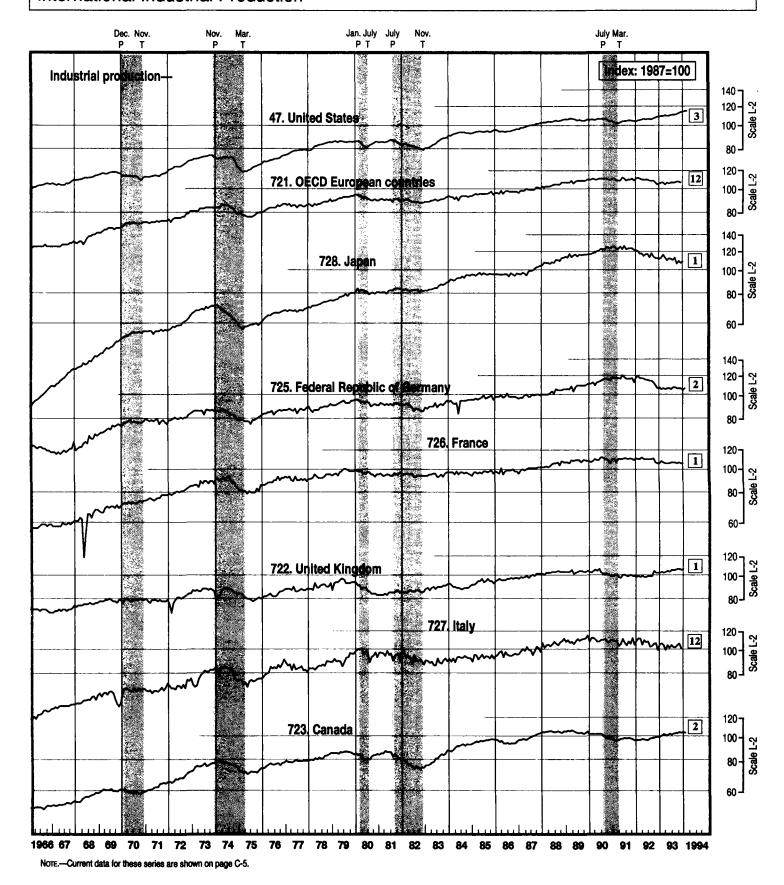
**Prices** 



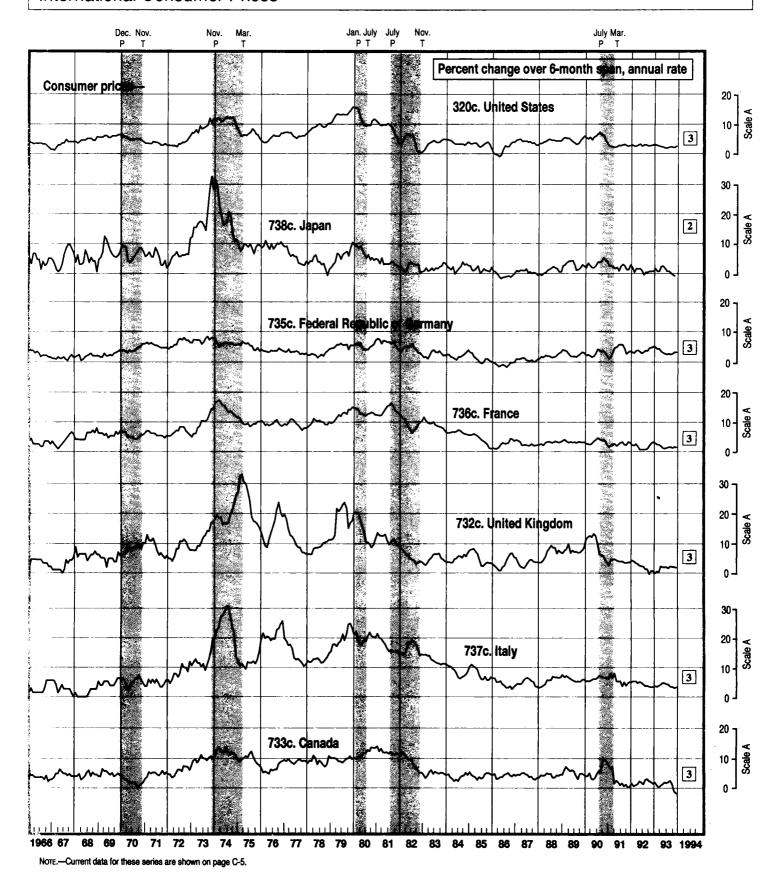
#### Other Measures



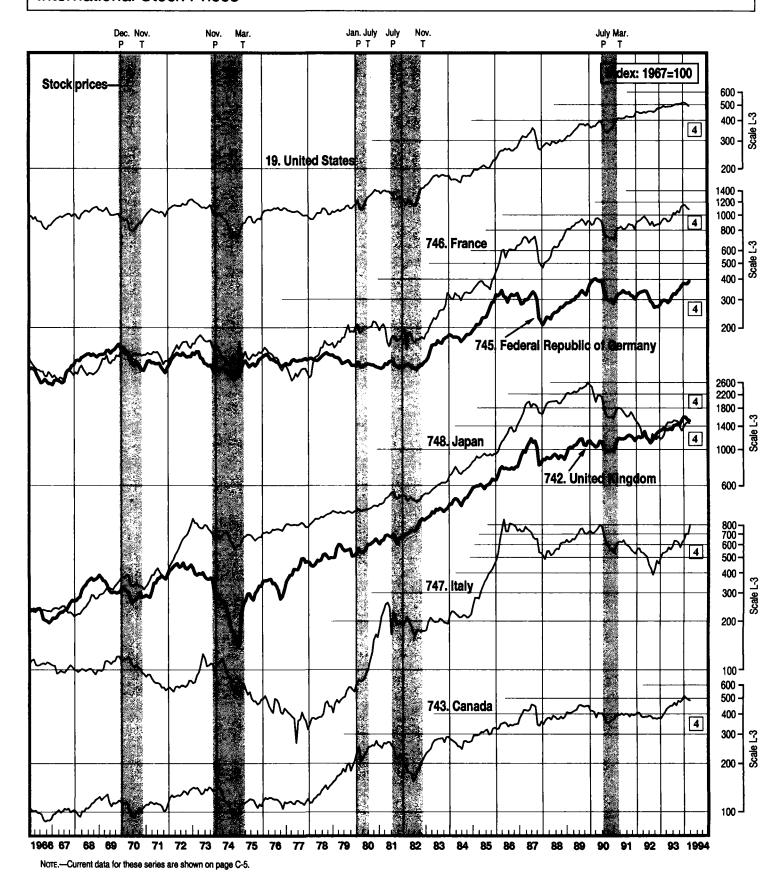
#### International Industrial Production



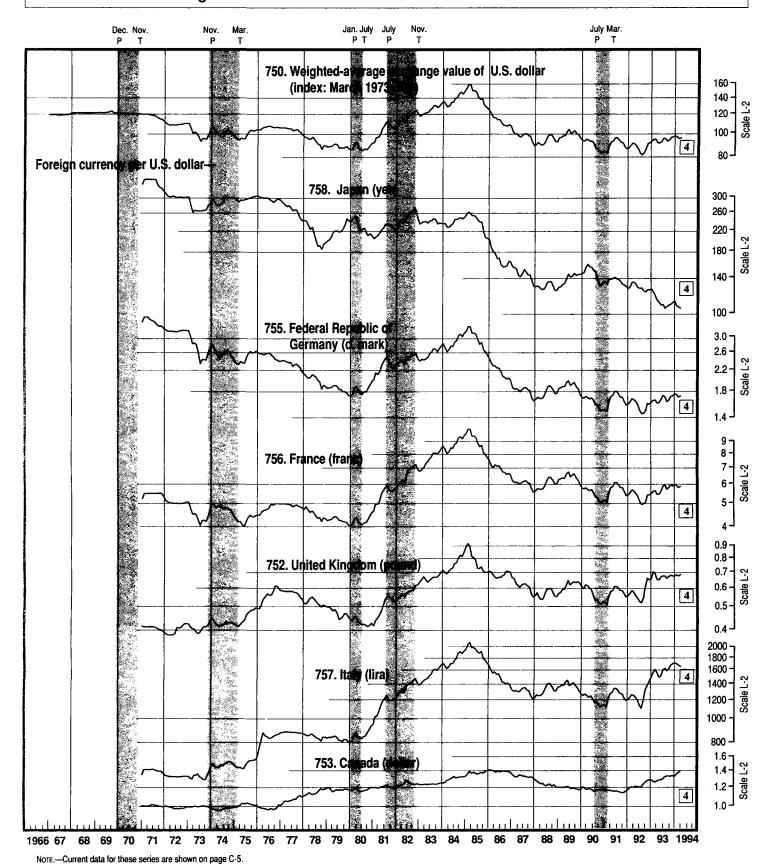
#### **International Consumer Prices**



#### **International Stock Prices**



## International Exchange Rates



#### SURVEY OF CURRENT BUSINESS

#### **Business Cycle Expansions and Contractions**

Busine	Duration in months						
_		Contraction	Expansion	Cycle			
Trough	Peak	(trough from previous peak)	(trough to peak)	Trough from previous trough	Peak from previous peal		
December 1854	June 1857		30				
December 1858	October 1860	18	22	48	40		
une 1861	April 1865	8	46	30	54		
December 1867		32	18	78	50		
ecember 1870	October 1873	18	34	36	52		
farch 1879	March 1882	65	36	99	101		
lay 1885	March 1887	38	22	74	60		
pril 1888	July 1890	13	27	35	40		
lay 1891	January 1893	10	20	37	30		
une 1894	December 1895	17	18	37	35		
une 1897	June 1899	18	24	36	42		
ecember 1900	September 1902	18	21	42	39		
ugust 1904	May 1907	23	33	44	39 56		
ine 1908	January 1910	23 13	19	46	32		
anuary 1912	January 1913	24	12	43	36		
ecember 1914	August 1918	23	44	35	67		
larch 1919	January 1920	7	1 10	51	17		
uly 1921	May 1923	l 18	22	28	40		
ulý 1924		l iš	27	36	l 41		
lovember 1927	August 1929	13	21	40	34		
farch 1933	May 1937	43	50	64	93		
une 1938		l iš	80	63	93		
October 1945	November 1948	8	37	88	45		
October 1949	July 1953	11	45	48	56		
lay 1954		10	39	55	49		
pril 1958	April 1960	8	24	47	32		
ebruary 1961	December 1969	10	106	l 34	116		
lovember 1970	November 1973	l ji	36	117	47		
larch 1975	January 1980	16	58	52	74		
uly 1980	July 1981	6	12	64	18		
November 1982	July 1990	16 8	92	28 100	108		
verage, all cycles:							
1854-1991 (31 cycles)		18	35	53	153		
		22	27	48	<sup>2</sup> 49		
		18	35	53	53		
		11	50	61	61		
verage, peacetime cycles:		10	00	40	3.40		
		19	29	48	3 48		
		22	24	46	447		
		20	26	46	45		
1945-1991 (/ Cycles)		11	43	53	53		

<sup>1. 30</sup> cycles. 2. 15 cycles

NOTE.—Figures printed in bold italic are the wartime expansions (Civil War, World Wars I and II, Korean war, and Vietnam war), the postwar contractions, and the full cycles that include the wartime expansions.

Source: National Bureau of Economic Research, Inc., 1050 Massachusetts Avenue, Cambridge, MA 02138.

<sup>2. 15</sup> cycles

<sup>3. 25</sup> cycles

#### Cyclical Leads (-) and Lags (+) for Selected Indicators

[Length in months]

		At reference peaks									
Series no.	Series title	July 1990	July 1981	Jan. 1980	Nov. 1973	Dec. 1969	Apr. 1960	Aug. 1957	July 1953	Nov. 1948	Mean
1 5 8 32 20 29 99 19 106 83 910 940	Average weekly hours, manufacturing Average weekly initial claims for unemployment insurance (inverted)  Manufacturers' new orders in 1987 dollars, consumer goods and materials Vendor performance, slower deliveries diffusion index Contracts and orders for plant and equipment in 1987 dollars Building permits, new private housing units Change in manufacturers' unfilled orders in 1987 dollars, durable goods (smoothed)  Change in sensitive materials prices (smoothed)  Index of stock prices, 500 common stocks Money supply M2 in 1987 dollars Index of consumer expectations Composite index of 11 leading indicators Ratio, coincident index to lagging index	<u>–18</u>	-7 0 -2 -3 -3 -10 -6 -7 -8 NST -2 -8	-10 -16 -13 -9 -10 -13 -7 NST -24 -38 -15	-7 -9 -8 0 -11 -6 +3 -10 -15 -9 -11	-14 -11 -13 -4 -11 -10 -7 -10 -12 -11 -10	-11 -12 -13 -14 -13 -17 -17 -12 -17 -9 NST -2 -11 -12	-21 -23 -25 -28 -9 -30 -19 -17 -13 -16 -9 -20	730 732 748 745 75 75 75 75 75 75 75 75 75 75 75 75 75	-11 -13 -5 -7 -7 -13 -3 n.a. -30 -17 n.a. -7	-11.0 -12.9 -9.3 -8.4 -7.3 -15.4 -10.6 -7.8 -11.1 -14.2 -12.4 -11.6
41 51 47 57 920	COINCIDENT INDICATORS  Employees on nonagricultural payrolls	-1 -3; +2 -4 -1	0 +1 0 -6 +1	+2 0 +2 -10 0	+11 0 0 0 0	+3 NST -2 -2 -2	0 +1 -3 -3 -3	-50 -5 -6 -5	-1 -1 0 -3 0	-2 -1 -4 +1 -1	+0.8 4 -1.1 -3.7 -1.2
91 77 62 109 101 95 120 930	Average duration of unemployment (inverted)  Ratio, manufacturing and trade inventories to sales in 1987 dollars Change in index of labor cost per unit of output, manufacturing (smoothed)  Average prime rate charged by banks Commercial and industrial loans outstanding in 1987 dollars Ratio, consumer installment credit to personal income Change in Consumer Price Index for services (smoothed)  Composite index of 7 lagging indicators	-13 +6 +8 -14 0 -10 +2 -9	+5 +15 +6 +1 +14 NST +2 +3	-6 +5 +5 +3 +2 -5 +3 +2 -5 +3 +2 -5 +3	-2 +16 +16 +10 +10 +5 +11 +13	-2 +11 +1 +2 +8 NST +4 +3	29 +10 +10 +15 +15 +15 +16 +17 +17 +17 +17 +17 +17 +17 +17 +17 +17	+8 +6 +4 +5 +4 +5 +4	+2 +5 +6 +7 -1 +5 n.a. +5	0 +8 0 NST +3 NST n.a. NST	-1.4 +9.2 +6.4 +2.0 +4.6 +1.0 +1.9 +3.1
		At reference troughs									
		Mar. 1991	Nov. 1982	July 1980	Mar. 1975	Nov. 1970	Feb. 1961	Apr. 1958	May 1954	Oct. 1949	Mean
1	LEADING INDICATORS										
5 8 8 32 20 29 92 99 19 106 83 910 940	Average weekly hours, manufacturing Average weekly initial claims for unemployment insurance (inverted)  Manufacturers' new orders in 1987 dollars, consumer goods and materials Vendor performance, slower deliveries diffusion index Contracts and orders for plant and equipment in 1987 dollars Building permits, new private housing units Change in manufacturers' unfilled orders in 1987 dollars, durable goods (smoothed)  Change in sensitive materials prices (smoothed)  Change in sensitive materials prices (smoothed)  Index of stock prices, 500 common stocks Money supply M2 in 1987 dollars Index of consumer expectations Composite index of 11 leading indicators Ratio, coincident index to lagging index	+1 0 0 0 0 +3 -2 +20 0 -5 -2 -5 -2 0	-1 -2 -1 -8 +4 -13 -2 -5 -4 NST -8 -10	0 2 2 2 2 2 3 1 0 5 2 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0 0 0 1 +9 0 1 -1 -2 3 -2 -1 -1 0	-2. -1 0 1 +1, -10 -3; -25 -7 -6 -1 -8	-2 0 0 0 1 1 +1 +2 -9 -1 4 NST -2 -1	-4 -3	-1 +4 -7 -6 -2 -8 -5 -4 -8 NST -4 -5	-6 0.4 -7 -6 -9 -4 -4 -15 n.a.	-1.2 1 -1.8 -4.2 +.6 -5.4 -2.4 -4.6 -5.2 -4.0 -3.1 -2.9
8 32 20 29 92 99 19 106 83 910	Average weekly initial claims for unemployment insurance (inverted) <sup>1</sup> Manufacturers' new orders in 1987 dollars, consumer goods and materials  Vendor performance, slower deliveries diffusion index  Contracts and orders for plant and equipment in 1987 dollars  Building permits, new private housing units  Change in manufacturers' unfilled orders in 1987 dollars, durable goods (smoothed) <sup>2</sup> Change in sensitive materials prices (smoothed) <sup>2</sup> Index of stock prices, 500 common stocks  Money supply M2 in 1987 dollars  Index of consumer expectations  Composite index of 11 leading indicators		-8 +4 -13 -2 -5 -4 NST -8 -10	-1 l	0019012	0 +1 -10 -7 -7 -7 -7 -7 -1	01 -11 +1 -2 -9 -1 -4 NST	00024122443120	1 +4 -7 6 -2 -8 -5 -4 -8 5 -6 -4 -5 3 -1 -1 -5 -2	0 4 7 6 9 4 4 4 4 1 15 n.a. 4	1 -1.8 -4.2 +.6 -5.4 6 -2.4 -4.6 -5.2 -4.0 -3.1

NoTE.—Reference peaks and troughs are the cyclical turning points in overall business activity (see page C-28); specific peaks and troughs are the cyclical turning points in individual series. This table lists, for the composite

indexes and their components, the leads (-) and lags (+) of the specific peaks and troughs in relation to the corresponding reference peaks and troughs. See *Measuring Business Cycles* by *Arthur F. Burns* and Wesley C. Mitchell (National Bureau of Economic Research, Inc., 1946) for information on the selection of cyclical peaks and troughs. NST No specific turn. No specific turning point is discernible in the data.

n.a. Not available. Data needed to determine a specific turning point are not available.

1. This series is inverted; i.e., low values are peaks and high values are troughs.

2. This series is smoothed by an autoregressive-moving-average filter developed by Statistics Canada.

#### TITLES AND SOURCES OF SERIES

Series are listed below in numerical order within each of the two major groups. Series numbers are for identification only and do not reflect relationships or order among the series. "M" following a series title indicates monthly data; "Q" indicates quarterly data. Data apply to the whole period except when indicated by "EOM" (end of month) or "EOQ" (end of quarter).

To save space, the following commonly used sources are referred to by number:

Source 1—U.S. Department of Commerce, Bureau of Economic Analysis; Source 2—U.S. Department of Commerce, Bureau of the Census; Source 3—U.S. Department of Labor, Bureau of Labor Statistics; Source 4—Board of Governors of the Federal Reserve System.

The numbers in parentheses following the sources indicate the C-pages on which the series appear: Numbers in plain type indicate data tables; numbers in bold type indicate charts.

#### 1. Cyclical Indicators

- Average weekly hours of production or nonsupervisory workers, manufacturing (M).—Source 3 (1, 2, 9)
- Average weekly initial claims for unemployment insurance, State programs (M).—Source 1 and U.S. Department of Labor, Employment and Training Administration (1, 2, 9)
- Manufacturers' new orders in 1987 dollars, durable goods industries (M).— Sources 1, 2, and 3 (2, 15)
- Manufacturers' new orders in 1987 dollars, consumer goods and materials industries (M).—Sources 1, 2, and 3 (1, 2, 9)
- Construction contracts awarded for commercial and industrial buildings, floor space (M).—McGraw-Hill Information Systems Company; seasonal adjustment by Bureau of Economic Analysis (This is a copyrighted series used by permission; it may not be reproduced without written permission from the source.) (2, 16)
- Contracts and orders for plant and equipment in current dollars (M).— Sources 1, 2, and McGraw-Hill Information Systems Company (2)
- Index of net business formation (M).—Source 1 and Dun & Bradstreet, Inc. (2, 16)
- 13. Number of new business incorporations (M).—Dun & Bradstreet, Inc. (2, 16)
- 14. Current liabilities of business failures (M).—Dun & Bradstreet, Inc. (4)
- 16. Corporate profits after tax in current dollars (Q).—Source 1 (4, 19)
- 18. Corporate profits after tax in 1987 dollars (Q).—Source 1 (4, 19)
- Index of stock prices, 500 common stocks (M).—Standard & Poor's Corporation (1, 5, 10, 26)
- Contracts and orders for plant and equipment in 1987 dollars (M).—Sources 1, 2, and McGraw-Hill Information Systems Company (1, 2, 9)
- Average weekly overtime hours of production or nonsupervisory workers, manufacturing (M).—Source 3 (2, 13)
- Ratio, corporate domestic profits after tax to total corporate domestic income (Q).—Source 1 (4, 19)
- 23. Index of spot market prices, raw industrial materials (M).—Sources 1, 3, and Knight-Ridder Financial Publishing. (From June 1981 forward, this is a copyrighted series used by permission; it may not be reproduced without written permission from Knight-Ridder Financial Publishing.) (3, 19)
- Ratio, implicit price deflator to unit labor cost, all persons, nonfarm business sector (Q).—Sources 1 and 3 (4, 19)
- Manufacturers' new orders in 1987 dollars, nondefense capital goods industries (M).—Sources 1, 2, and 3 (2, 16)
- 28. New private housing units started (M).—Source 2 (3, 18)
- Index of new private housing units authorized by local building permits (M).—Sources 1 and 2 (1, 3, 10)
- 30. Change in business inventories in 1987 dollars (Q).—Source 1 (3, 18)
- 31. Change in manufacturing and trade inventories (M).—Sources 1 and 2 (3, 18)
- 32. Vendor performance, slower deliveries diffusion index (M).—National Association of Purchasing Management and Purchasing Management Association of

- Chicago; seasonal adjustment by U.S. Department of Commerce, Office of the Chief Economist (1,2,9)
- 35. Corporate net cash flow in 1987 dollars (Q).—Source 1 (4)
- 37. Number of persons unemployed (M).—Source 3 (2)
- 39. Percent of consumer installment loans delinquent 30 days and over (EOM).—American Bankers Association (This is a copyrighted series used by permission; it may not be reproduced without written permission from the source.)
  (4)
- Employees on nonagricultural payrolls, goods-producing industries (M).— Source 3 (2, 13)
- 41. Employees on nonagricultural payrolls (M).—Source 3 (1, 2, 11)
- 42. Number of persons engaged in nonagricultural activities (M).—Source 3 (2)
- 43. Civilian unemployment rate (M).—Source 3 (2, 13)
- Unemployment rate, persons unemployed 15 weeks and over (M).—Source 3 (2)
- Average weekly insured unemployment rate, State programs (M).—Source
   and U.S. Department of Labor, Employment and Training Administration (2)
- Index of help-wanted advertising in newspapers (M).—The Conference Board (2, 13)
- 47. Index of industrial production (M).—Source 4 (1, 2, 5, 11, 24)
- 48. Employee hours in nonagricultural establishments (M).—Source 3 (2, 13)
- 49. Value of domestic goods output in 1987 dollars (Q).—Source 1 (2)
- 50. Gross national product in 1987 dollars (Q).—Source 1 (2)
- Personal Income less transfer payments in 1987 dollars (M).—Source 1 (1,4,11)
- 52. Personal income in 1987 dollars (M).—Source 1 (4)
- Wages and salaries in 1987 dollars, mining, manufacturing, and construction (M).—Sources 1 and 3 (4, 15)
- 55. Gross domestic product in 1987 dollars (Q).—Source 1 (2, 14)
- 57. Manufacturing and trade sales in 1987 dollars (M).—Sources 1 and 2 (1, 2, 11)
- 58. Index of consumer sentiment (Q,M).—University of Michigan, Survey Research Center (This is a copyrighted series used by permission; it may not be reproduced without written permission from the source.) (4)
- 59. Sales of retail stores in 1987 dollars (M).—Sources 1 and 2 (2, 15)
- Ratio, help-wanted advertising in newspapers to number of persons unemployed (M).—Sources 1, 3, and The Conference Board (2)
- New plant and equipment expenditures by business in current dollars (Q).— Source 2 (2)
- Change in index of labor cost per unit of output, manufacturing, smoothed (M).—Sources 1 and 4 (1, 4, 12)
- 63. Index of unit labor cost, all persons, business sector (Q).—Source 3 (4)
- 66. Consumer installment credit outstanding (EOM).—Source 4 (5)
- Manufacturers' machinery and equipment sales and business construction expenditures (M).—Sources 1 and 2 (2, 17)
- Manufacturing and trade inventories in 1987 dollars (EOM).—Sources 1 and 2 (3)

- 72. Commercial and industrial loans outstanding in current dollars (M).— Sources 1, 4, and The Federal Reserve Bank of New York (5)
- 73. Index of industrial production, durable manufactures (M).—Source 4 (2, 14)
- Index of industrial production, nondurable manufactures (M).—Source 4 (2, 14)
- 75. Index of industrial production, consumer goods (M).—Source 4 (2, 14)
- 76. Index of industrial production, business equipment (M).—Source 4 (3, 17)
- Ratio, manufacturing and trade inventories to sales in 1987 dollars (M).— Sources 1 and 2 (1, 3, 12)
- Ratio, corporate domestic profits after tax with inventory valuation and capital consumption adjustments to total corporate domestic income (Q).—Source 1 (4, 19)
- 82. Capacity utilization rate, manufacturing (M).—Source 4 (2, 14)
- 83. Index of consumer expectations (Q,M).—University of Michigan, Survey Research Center (This is a copyrighted series used by permission; it may not be reproduced without written permission from the source.) (1,4,10)
- 85. Change in money supply M1 (M).—Sources 1 and 4 (4, 20)
- 86. Gross private nonresidential fixed investment in 1987 dollars (Q).—Source 1 (3, 17)
- Gross private nonresidential fixed investment in 1987 dollars, structures (Q).—Source 1 (3, 17)
- Gross private nonresidential fixed investment in 1987 dollars, producers' durable equipment (Q).—Source 1 (3, 17)
- Gross private residential fixed investment in 1987 dollars (Q).—Source 1 (3, 18)
- Ratio, civilian employment to population of working age (M).—Source 3 (2, 13)
- 91. Average duration of unemployment in weeks (M).—Source 3 (1, 2, 12)
- Change in manufacturers' unfilled orders in 1987 dollars, durable goods industries, smoothed (M).—Sources 1, 2, and 3 (1, 2, 10)
- 93. Free reserves (M).—Sources 1 and 4 (4)
- 94. Member bank borrowings from the Federal Reserve (M).—Source 4 (4)
- Ratio, consumer installment credit outstanding to personal income (M).— Sources 1 and 4 (1, 5, 12)
- Index of producer prices for sensitive crude and intermediate materials (M).—Sources 1 and 3 (3)
- Change in sensitive materials prices, smoothed (M).—Sources 1, 3, and Knight-Ridder Financial Publishing. (1,3, 10)
- New plant and equipment expenditures by business in 1987 dollars (Q).— Source 2 (2, 17)
- 101. Commercial and industrial loans outstanding in 1987 dollars (M).—Sources 1, 3, 4, and The Federal Reserve Bank of New York (1,5, 12)
- 102. Change in money supply M2 (M).—Sources 1 and 4 (4, 20)
- 105. Money supply M1 in 1987 dollars (M).—Sources 1, 3, and 4 (4)
- 106. Money supply M2 in 1987 dollars (M).—Sources 1, 3, and 4 (1, 4, 10)
- 107. Ratio, gross domestic product to money supply M1 (Q).—Sources 1 and 4 (4)
- 108. Ratio, personal income to money supply M2 (M).—Sources 1 and 4 (4)
- 109. Average prime rate charged by banks (M).—Source 4 (1,5, 12)
- Funds raised by private nonfinancial borrowers in credit markets (Q).— Source 4 (4, 20)
- 111. Change in business and consumer credit outstanding (M).—Sources 1, 4, Federal Home Loan Bank Board, and The Federal Reserve Bank of New York (4)
- 112. Net change in business loans (M).—Sources 1, 4, and The Federal Reserve Bank of New York (4, 20)
- 113. Net change in consumer installment credit (M).—Sources 1 and 4 (4, 20)
- 114. Discount rate on new issues of 91-day Treasury bills (M).—Source 4 (5, 21)

- 115. Yield on long-term Treasury bonds (M).—U.S. Department of the Treasury (5.21)
- 116. Yield on new issues of high-grade corporate bonds (M).—Citibank and U.S. Department of the Treasury (5, 21)
- 117. Yield on municipal bonds, 20-bond average (M).—The Bond Buyer (5)
- 118. Secondary market yields on FHA mortgages (M).—U.S. Department of Housing and Urban Development, Federal Housing Administration (5)
- 119. Federal funds rate (M).—Source 4 (5, 21)
- 120. Change in Consumer Price Index for services, smoothed (M).—Sources 1 and 3 (1, 3, 12)
- 122. Index of consumer confidence (M).—The Conference Board (4)
- 123. Index of consumer expectations (M).—The Conference Board (4, 15)
- 124. Capacity utilization rate, total industry (M).—Source 4 (2)
- 910. Composite index of 11 leading indicators (includes series 1, 5, 8, 19, 20, 29, 32, 83, 92, 99, 106) (M).—Source 1 (1, 7, 8)
- 920. Composite index of 4 coincident indicators (includes series 41, 47, 51, 57) (M).—Source 1 (1, 7, 8)
- Composite index of 7 lagging indicators (includes series 62, 77, 91, 95, 101, 109, 120) (M).—Source 1 (1, 7, 8)
- 940. Ratio, coincident composite index (series 920) to lagging composite index (series 930) (M).—Source 1 (1, 7)
- 950. Diffusion index of 11 leading indicator components (M).—Source 1 (1,8)
- 951. Diffusion index of 4 coincident indicator components (M).—Source 1 (1,8)
- 952. Diffusion index of 7 lagging indicator components (M).—Source 1 (1,8)
- 963. Diffusion index of employees on private nonagricultural payrolls, 356 industries (M).—Source 3 (2)
- CIBCR long-leading composite index (M).—Columbia University, Center for International Business Cycle Research (5, 21)
- 991. CIBCR short-leading composite index (M).—Columbia University, Center for International Business Cycle Research (5, 21)

#### 2. Other Important Economic Measures

- 290. Gross saving (Q).—Source 1 (4)
- 292. Personal saving (Q).—Source 1 (4)
- 293. Personal saving rate (Q).—Source 1 (4, 23)
- 295. Business saving (Q).—Source 1 (4)
- 298. Government surplus or deficit (Q).—Source 1 (4, 23)
- 311. Fixed-weighted price index, gross domestic business product (Q).—Source 1 (3, 22)
- 320. Consumer Price Index for all urban consumers, all items (M).—Source 3 (3,5,22,25)
- 323. Consumer Price Index for all urban consumers, all items less food and energy (M).—Source 3 (3, 22)
- 331. Producer Price Index, crude materials for further processing (M).—Sources 1 and 3 (3, 22)
- 332. Producer Price Index, intermediate materials, supplies, and components (M).—Sources 1 and 3 (3, 22)
- 333. Producer Price Index, capital equipment (M).—Sources 1 and 3 (3, 22)
- 334. Producer Price Index, finished consumer goods (M).—Sources 1 and 3 (3, 22)
- 336. Producer Price Index, finished goods (M).—Sources 1 and 3 (3, 22)
- 337. Producer Price Index, finished goods less foods and energy (M).—Sources 1 and 3 (3, 22)
- 345. Index of average hourly compensation, all employees, nonfarm business sector (Q).—Source 3 (4)

- 346. Index of real average hourly compensation, all employees, nonfarm business sector (Q).—Source 3 (4)
- 358. Index of output per hour, all persons, nonfarm business sector (Q).—Source 3 (4)
- 370. Index of output per hour, all persons, business sector (Q).—Source 3 (4, 23)
- 441. Civilian labor force (M).—Source 3 (2)
- 442. Civilian employment (M).—Source 3 (2)
- 451. Civilian labor force participation rate, males 20 years and over (M).—Source 3 (2)
- 452. Civilian labor force participation rate, females 20 years and over (M).— Source 3 (2)
- 453. Civilian labor force participation rate, both sexes 16–19 years of age (M)— Source 3 (2)
- 525. Defense Department prime contract awards for work performed in the United States (M).—U.S. Department of Defense, Office of the Assistant Secretary of Defense (Comptroller), Washington Headquarters Services, Directorate for Information Operations and Reports; seasonal adjustment by Bureau of Economic Analysis (5)
- 548. Manufacturers' new orders, defense products (M).—Source 2 (5)
- Index of industrial production, defense and space equipment (M).—Source
   4 (5)
- 564. Federal Government purchases, national defense (Q).—Source 1 (5, 23)
- 570. Employment, defense products industries (M).—Sources 1 and 3 (5)
- 602. Exports, excluding military aid shipments (M).—Sources 1 and 2 (5)
- 604. Exports of domestic agricultural products (M).—Sources 1 and 2 (5)
- 606. Exports of nonelectrical machinery (M).—Sources 1 and 2 (5)
- 612. General imports (M).—Source 2 (5)
- 614. Imports of petroleum and petroleum products (M).—Sources 1 and 2 (5)
- 616. Imports of automobiles and parts (M).—Sources 1 and 2 (5)
- 618. Merchandise exports, adjusted, excluding military (Q).—Source 1 (5, 23)
- 620. Merchandise imports, adjusted, excluding military (Q).—Source 1 (5, 23)
- 622. Balance on merchandise trade (Q).—Source 1 (5)
- 721. Organisation for Economic Co-operation and Development, European countries, Index of Industrial production (M).—Organisation for Economic Co-operation and Development (Paris) (5, 24)
- United Kingdom, Index of Industrial production (M).—Central Statistical Office (London) (5, 24)
- 723. Canada, index of industrial production (M).—Statistics Canada (Ottawa) (5, 24)

- 725. Federal Republic of Germany, index of industrial production (M).— Statistisches Bundesamt (Wiesbaden) (5, 24)
- 726. France, index of Industrial production (M).—Institut National de la Statistique et des Etudes Economiques (Paris) (5, 24)
- Italy, index of industrial production (M).—Istituto Centrale di Statistica (Rome) (5, 24)
- Japan, index of industrial production (M).—Ministry of International Trade and Industry (Tokyo) (5, 24)
- 732. United Kingdom, consumer price index (M).—Department of Employment (London); percent changes seasonally adjusted by Bureau of Economic Analysis (5, 25)
- 733. Canada, consumer price index (M).—Statistics Canada (Ottawa); percent changes seasonally adjusted by Bureau of Economic Analysis (5, 25)
- 735. Federal Republic of Germany, consumer price index (M).—Statistisches Bundesamt (Wiesbaden); percent changes seasonally adjusted by Bureau of Economic Analysis (5, 25)
- 736. France, consumer price index (M).—Institut National de la Statistique et des Etudes Economiques (Paris); percent changes seasonally adjusted by Bureau of Economic Analysis (5, 25)
- Italy, consumer price index (M).—Istituto Centrale di Statistica (Rome); percent changes seasonally adjusted by Bureau of Economic Analysis (5, 25)
- Japan, consumer price index (M).—Bureau of Statistics, Office of the Prime Minister (Tokyo); percent changes seasonally adjusted by Bureau of Economic Analysis (5, 25)
- 742. United Kingdom, index of stock prices (M).—Central Statistical Office (London) (5, 26)
- 743. Canada, index of stock prices (M).—Toronto Stock Exchange (Toronto) (5, 26)
- 745. Federal Republic of Germany, index of stock prices (M).—Statistisches Bundesamt (Wiesbaden) (5, 26)
- 746. France, index of stock prices (M).—Institut National de la Statistique et des Etudes Economiques (Paris) (5, 26)
- 747. Italy, index of stock prices (M).—Banca d'Italia (Rome) (5, 26)
- 748. Japan, index of stock prices (M).—Bank of Japan (Tokyo) (5, 26)
- 750. Index of weighted-average exchange value of U.S. dollar against currencies of 10 industrial countries (M).—Source 4 (5, 27)
- 752. United Kingdom, exchange rate per U.S. dollar (M).—Sources 1 and 4 (5, 27)
- 753. Canada, exchange rate per U.S. dollar (M).—Source 4 (5, 27)
- 755. Federal Republic of Germany, exchange rate per U.S. dollar (M).—Source 4 (5, 27)
- 756. France, exchange rate per U.S. dollar (M).—Source 4 (5, 27)
- 757. Italy, exchange rate per U.S. dollar (M).—Source 4 (5, 27)
- 758. Japan, exchange rate per U.S. dollar (M).—Source 4 (5, 27)

#### Sources for Current Business Statistics

This listing gives the address and phone number of sources for all series formerly published in the "Current Business Statistics" section, which has been discontinued. The source numbers shown in this list are printed in brackets after the series titles on pages S-1 through S-32 of the March 1994 Survey of Current Business.

### 1.1 Personal income by source and disposition of personal income

U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Wealth Division, BE-54, 1441 L Street NW, Washington, DC 20230 (202) 606–5304

#### 1.2 Industrial production

Jerry Storch, Board of Governors of the Federal Reserve System, Division of Research and Statistics, Industrial Output Section, Eccles Building, Room 3212-D, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452-2932

### 1.3 Business sales, inventories, inventory-sales ratios, and retail trade

Ronald Piencykoski, U.S. Department of Commerce, Bureau of the Census, Business Division, Current Retail Sales and Inventories Branch, FOB 3, Room 2626, Washington, DC 20233 (301) 763–5294

### 1.4 Manufacturing and trade sales, inventories, and ratios in 1987 dollars

U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Wealth Division, BE-54, 1441 L Street NW, Washington, DC 20230 (202) 606-5304

#### 1.5 Manufacturers' shipments, inventories, and orders

Steve Andrews or Kathy Menth, U.S. Department of Commerce, Bureau of the Census, Industry Division, M<sub>3</sub> Branch, FOB 4, Room 2232, Washington, DC 20233 (301) 763–2502 or (301) 763–2575

### 1.6 Business incorporations and industrial and commercial failures

The Dun & Bradstreet Corporation, Economic Communications Department, 299 Park Avenue, New York, NY 10171 (212) 593-4163

#### 2.1 Prices received and paid by farmers

Herb Vanderberry, U.S. Department of Agriculture, National Agricultural Statistical Service, Commodity Prices Section, Economic Statistics Branch, South Building, Room 5912, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–5446

#### 2.2 Consumer prices and purchasing power of the dollar

U.S. Department of Labor, Bureau of Labor Statistics, Office of Consumer Prices and Price Indexes, Postal Square Building, Room 3615, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606–7000

### 2.3 Producer prices and producer price indexes for all commodities

U.S. Department of Labor, Bureau of Labor Statistics, Division of Industrial Prices and Price Indexes, Postal Square Building, Room 3840, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606-7705

# 3.1 Construction put in place and construction cost indexes George A. Roff, U.S. Department of Commerce, Bureau of the Census, Construction Statistics Division, Progress Branch, Iverson Mall, Room 301-03, Washington, DC 20233 (301) 763-5717

#### 3.2 Construction contracts

Laura Pelzer, McGraw-Hill Construction Information Group, F.W. Dodge Division, Paramount Plaza, 13th Floor, 1633 Broadway, New York, NY 10019 (212) 512–3523

#### 3.3 Housing starts and permits

U.S. Department of Commerce, Bureau of the Census, Construction Statistics Division, Construction Starts Branch, Iverson Mall, Room 300–15, Washington, DC 20233 (301) 763–5731

#### 3.4 Boeckh indexes

Janet Olson, BOECKH, Division of Mitchell International, P.O. Box 51291, New Berlin, wi 53151-0291 (1-800) 809-0016, ext. 2808

## 3.5 Engineering News-Record and construction hourly wages Rona Nadi, McGraw-Hill Construction Information Group, Engineering News-Record, 41st Floor, 1221 Avenue of the Americas, New York, NY 10020 (212) 512-3418

#### 3.6 Federal Highway Adm.—highway construction

Claretta Duren, U.S. Department of Transportation, Federal Highway Administration, Interstate and Programs Support Branch, HNG-13, Nassis Building, Room 3128, 400 7th Street sw, Washington, DC 20590 (202) 366-4636

#### 3.7 Real estate

Zenora Hines, U.S. Housing and Urban Development, Federal Housing Administration, Information Systems Division, Room B133, 451 7th Street sw, Washington, DC 20410 (202) 755–7500, ext. 107

### 3.8 Federal Home Loan Banks, outstanding advances to member institutions

Phil Quinn, Federal Housing Finance Board, District Bank Directorate Division, Financial Report Branch, 4th Floor, 1777 F Street NW, Washington, DC 20006 (202) 408–2865

#### 4.1 Newspaper advertising expenditures

Miles Groves, Newspaper Association of America, Newspaper Center, 11600 Sunrise Valley Drive, Reston, va 22091 (703) 648–1339

#### 4.2 Wholesale trade

Nancy Piesto, U.S. Department of Commerce, Bureau of the Census, Business Division, Current Wholesale Branch, FOB 3, Room 2747, Washington, DC 20233 (301) 763–3916

#### 5.1 Labor force and population

U.S. Department of Labor, Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, Current Employment Analysis Section, Postal Square Building, Room 4675, 2 Massachusetts Avenue, NE, Washington, DC 20212 (202) 606–6378

#### 5.2 Employment, average hours per week, indexes of employeehours, and hourly and weekly earnings

U.S. Department of Labor, Bureau of Labor Statistics, Office of Employment and Unemployment Statistics, Monthly Industry Employment Statistics, Postal Square Building, Room 4860, 2 Massachusetts Avenue, NE, Washington, DC 20212 (202) 606–6555

#### 5.3 Aggregate employee-hours

U.S. Department of Labor, Bureau of Labor Statistics, Division of Productivity Research, Postal Square Building, Room 2150, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606–5606

#### 5.4 Employment cost index

Wayne Shelly, U.S. Department of Labor, Bureau of Labor Statistics, Office of Compensation and Working Conditions, Division of Employment Cost Trends, Postal Square Building, Room 4170, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606-6199

#### 5.5 Help-wanted advertising

Ken Goldstein, The Conference Board, Inc., 845 Third Avenue, New York, NY 10022 (212) 339-0331

#### 5.6 Work stoppages

U.S. Department of Labor, Bureau of Labor Statistics, Division of Developments and Labor Management Relations, Postal Square Building, Room 4175, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606-6288

#### 5.7 Unemployment insurance

Cindy Ambler, U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Service, Suite s-4519, 200 Constitution Avenue NW, Washington, DC 20210 (202) 219-5922

#### 6.1 Bankers' acceptances

Thomas Brady, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, Stop 81, Eccles Building, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452-3363

#### 6.2 Commercial and financial company paper

Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045 (212) 720-6143

#### 6.3 Loans of the Farm Credit System

Federal Farm Credit Banks Funding Corporation, Suite 1401, 10 Exchange Place, Jersey City, NJ 07302 (201) 200-8000

#### 6.4 Federal Reserve Banks condition

Kim Jefferson, Board of Governors of the Federal Reserve System, Information Resource Management, Stop 170, Martin Building, 20th & C Streets NW, Washington, DC 20551 (202) 452-2398

### 6.5 All member banks of Federal Reserve System, average daily figures

Board of Governors of the Federal Reserve System, Division of Monetary Affairs, Stop 72, Eccles Building, 20th & Constitution Avenue Nw, Washington, DC 20551 (202) 452–3577

### 6.6 Large commercial banks reporting to Federal Reserve System

Dennis Farley, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, Stop 81, Eccles Building, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452-3021

#### 6.7 Commercial bank credit

Virginia Lewis, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, Stop 84, Eccles Building, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452–3012

6.8 Money and interest rates and taxable U.S. Treasury bonds
Deborah McMillian, Board of Governors of the Federal Reserve System, Division of Monetary Affairs, Stop 81, Eccles
Building, 20th & Constitution Avenue NW, Washington, DC
20551 (202) 452–2851

#### 6.9 Home mortgage rates

Travis King, Federal Housing Finance Board, 1777 F Street NW, Washington, DC 20006 (202) 408-2967

#### 6.10 Consumer installment credit

Mark Peirce, Board of Governors of the Federal Reserve System, Division of Research and Statistics, Stop 93, Eccles Building, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452–3760

#### 6.11 Federal Government finance

Sherry Sherrod, U.S. Department of the Treasury, Financial Management Service, Room 749, 941 North Capitol Street NE, Washington, DC 20227 (202) 208–2456

#### 6.12 Gold, monetary stock

Donald Adams, Board of Governors of the Federal Reserve System, Division of International Finance, Stop 43, Eccles Building, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452–2364

#### 6.13 Gold and silver prices at New York

Platt's Metals Week, McGraw-Hill Inc., 42nd Floor, 1221 Avenue of the Americas, New York, NY 10020 (212) 512–2823

#### 6.14 Monetary statistics

Board of Governors of the Federal Reserve System, Division of Monetary Affairs, Stop 72, Eccles Building, 20th & Constitution Avenue NW, Washington, DC 20551 (202) 452-3577

#### 6.15 Currency in circulation

Bernadette Derr, U.S. Department of the Treasury, Financial Management Service, 401 14th Street sw, Washington, DC 20227 (202) 208-1374

#### 6.16 Profits and dividends

Paul Zarrett, U.S. Department of Commerce, Bureau of the Census, Economic Census and Survey Division, FOB 3, Room 2578, Washington, DC 20233 (301) 763–2718

### 6.17 State and municipal securities issues and domestic municipal bond yields

The Bond Buyer, Statistics Department, 31st Floor, 1 State Street Plaza, New York, NY 10004 (212) 943-8542

### 6.18 Bond prices, domestic municipal bond yields, and stock prices and yields

Standard & Poor's Corporation, Central Inquiry, 25 Broadway, New York, NY 10004 (212) 208–1199

#### 6.19 Bond sales

Mike Hyland, New York Stock Exchange, Inc., Fixed Income Markets, 20 Broad Street, New York, NY 10005 (212) 656–5868

#### 6.20 Bond yields

Moody's Investors Service, Corporate Rating Desk, 99 Church Street, New York, NY 10007 (212) 553-0377

#### 6.21 Stock prices, Dow Jones averages

Dow Jones & Company, Inquiry Department, 200 Liberty Street, New York, NY 10281 (212) 416–2676

### 6.22 Stock prices, stock sales, and shares listed, New York Stock Exchange (NYSE)

Bethann Ashfield, New York Stock Exchange, Inc., Research Library, 17th Floor, 11 Wall Street, New York, NY 10005 (212) 656–2491

#### 6.23 Stock prices and stock sales, NASDAQ over-the-counter

Mike Shokouhi, National Association of Securities Dealers, Inc., Economic Research Department, 1735 K Street NW, Washington, DC 20006 (202) 728–8274

#### 6.24 Stock sales on all registered exchanges (SEC)

William Atkinson, Securities and Exchange Commission, Office of Economic Analysis, Stop 9–1, 450 5th Street NW, Washington, DC 20549 (202) 272–7360

### 7.1 Value of exports, value of imports, and merchandise trade balance

Richard Preuss, U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, Trade Data Services Branch, FOB 3, Room 2279, Washington, DC 20233 (301) 763–7754

#### 7.2 Export and import price indexes

Michelle Vachris, U.S. Department of Labor, Bureau of Labor Statistics, Division of International Prices, Branch of Index Methods, Analysis, and Evaluation, Postal Square Building, Room 3955, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606-7155

#### 7.3 Shipping weight and value

Norman Tague, U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division, Transportation Branch, FOB 3, Room 2266, Washington, DC 20233 (301) 763–7770

#### 8.1 Air carriers

Paul Gavel, U.S. Department of Transportation, Research and Special Programs Administration, Office of Airline Statistics, DAI-20, Washington, DC 20590 (202) 366-4391

#### 8.2 Urban transit industry

Terry Bronson, American Public Transit Association, Suite 400, 1201 New York Avenue NW, Washington, DC 20005 (202) 898–4129

#### 8.3 Motor carriers

Andrew Lee, Interstate Commerce Commission, Office of Economics, Section of Costing and Financial Information, Room 3310, 12th & Constitution Avenue NW, Washington, DC 20423 (202) 927–6387

### 8.4 Freight carried—volume indexes, class 1 and 11 intercity truck tonnage

Mike Arendes, American Trucking Association, Trucking Information Services, 2200 Mill Road, Alexandria, va 22314–4677 (703) 838–1791

#### 8.5 Class I railroads

David Miller, Association of American Railroads, Economics and Finance Department, Room 5404, 50 F Street NW, Washington, DC 20001 (202) 639–2304

#### 8.6 Foreign travel

Pat Harrington, U.S. Department of Transportation, Volpe National Transportation Systems Center, Center for Transportation Information, Kendall Square, Cambridge, MA 02142 (617) 494–2450

#### 8.7 Passports issued

David Brown, U.S. Department of State, Passport Services, Office of Program Support, Room 584, 1425 K Street NW, Washington, DC 20522–1705 (202) 326–6075

#### 8.8 National parks, recreation visits

Tom Wade, U.S. Department of Interior, National Park Service, Socio-Economic Studies, 12795 West Alameda Parkway, Denver, co 80225–0287 (303) 969–6977

#### 9.1 Inorganic chemicals

Lissene Hafenrichter, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2212, Washington, DC 20233 (301) 763–2541

#### 9.2 Sulfur

Pamela Shorter, U.S. Department of Interior, Bureau of Mines, Branch of Industrial Metals, MS-9705, 810 7th Street NW, Washington, DC 20241 (202) 501–9506

#### 9.3 Inorganic fertilizer materials

Walter Hunter, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2212, Washington, DC 20233 (301) 763–4490

#### 9.4 Potash, sales

Connie Holcomb, Potash and Phosphate Institute, Inc., Suite 110, 655 Engineering Drive, Norcross, GA 30092 (404) 447–0335

#### 9.5 Industrial gases

Suzanne Pasdar, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2212, Washington, DC 20233 (301) 763-4485

#### 9.6 Organic chemicals and plastics and resin materials

Gwen Bennett, International Trade Commission, Energy, Chemicals, and Textiles Division, Suite 513B, 500 E Street sw, Washington, DC 20436 (202) 205–3357

#### 9.7 Glycerin, production

David Gromos, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763–7809

#### 9.8 Alcohol and alcoholic beverages

U.S. Department of the Treasury, Bureau of Alcohol, Tobacco, and Firearms, Industry Compliance Division, Market Compliance Branch, 650 Massachusetts Avenue NW, Washington, DC 20226 (202) 927–8128

#### 9.9 Paints, varnish, and lacquer

Kim Ciurca, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2212, Washington, DC 20233 (301) 763–5602

#### 10.1 Electric power production

U.S. Department of Energy, National Energy Information Center, Forrestal Building, Room 1F-048, 1000 Independence Avenue sw, Washington, DC 20585 (202) 586–8800

#### 10.2 Electric power sales and revenue from sales

Edison Electric Institute, 701 Pennsylvania Avenue NW, Washington, DC 20004-2696 (202) 508-5000

#### 10.3 Gas

American Gas Association, 1515 Wilson Boulevard, Arlington, va 22209–2470 (703) 841–8507

#### 11.1 Dairy products

Daniel Buckner, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock Branch, South Building, 14th & Independence Avenue sw, Washington, DC 20250-2000 (202) 720-4448

#### 11.2 Fluid milk, utilization in manufactured dairy products

LaVerne T. Williams, U.S. Department of Agriculture, Economic Research Service, Livestock, Dairy, and Poultry Branch, Room 808D, 1301 New York Avenue NW, Washington, DC 20005 (202) 219–0769

#### 11.3 Fluid milk wholesale prices

James Hand, U.S. Department of Agriculture, National Agricultural Statistical Service, Economic Statistics Branch, Commodity Prices Section, South Building, Room 5927, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 690–3236

#### 11.4 Grain and grain products

Charles Van Lahr, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Crops Branch, South Building, Room 5175, 14th & Independence Avenue sw, Washington, DC 20250-2000 (202) 720-2127

#### 11.5 Rice

Dan Kerestes, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Crops Branch, South Building, Room 5175, 14th & Independence Avenue sw, Washington, DC 20250-2000 (202) 720-9526

#### 11.6 Rye and wheat

Vaughn Siegenthaler, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Crops Branch, South Building, Room 5175, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–8068

#### 11.7 Wheat flour

John Miller, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763–7837

#### 11.8 Poultry, slaughter

Joel Moore, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock, Dairy, and Poultry Branch, South Building, Room 5906, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–3244

### 11.9 Cold storage stocks of poultry, eggs, total meats, beef and veal, lamb and mutton, and pork

John Lang, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock, Dairy, and Poultry Branch, South Building, Room 5906, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–0585

#### 11.10 Poultry and egg prices

Debra Kenerson, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Economic Statistics Branch, South Building, Room 5912, 14th & Independence Avenue sw, Washington, DC 20250-2000 (202) 690-3234

#### 11.11 Egg production

Robert Little, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock, Dairy, and Poultry Branch, South Building, Room 5913, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–6147

#### 11.12 Cattles and calves

Glenda Shepler, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock, Dairy, and Poultry Branch, South Building, Room 5906, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–3040

#### 11.13 Hogs

Tom Kurtz, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock, Dairy, and Poultry Branch, South Building, Room 5901, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–3106

#### 11.14 Sheep and lambs and meats

Linda Simpson, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Livestock, Dairy, and Poultry Branch, South Building, Room 5871, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–3578

#### 11.15 Coffee, U.S. Import Price Index

Rob Frumkin, U.S. Department of Labor, Bureau of Labor Statistics, Division of International Prices, Branch of International Indexes, Postal Square Building, Room 3930, 2 Massachusetts Avenue NE, Washington, DC 20212 (202) 606-7106

#### 11.16 Fish

Barbara O'Bannon, U.S. Department of Commerce, National Oceanic and Atomspheric Administration, National Marine Fisheries Service, Fisheries Statistics Division, 1315 East West Highway, Silver Spring, MD 20910 (301) 713–2328

#### 11.17 Tobacco

Greg Preston, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Crops Branch, South Building, Room 5175, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–3843

#### 11.18 Tobacco leaf stocks

Henry Martin, U.S. Department of Agriculture, Agricultural Marketing Service, Tobacco Division, Market Information and Program Analysis Branch, Annex Building, Room 502, 300 12th Street sw, Washington, DC 20250–2000 (202) 205–0489

#### 12.1 Leather manufactures

Nat Shelton, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763–5809

13.1 Lumber-all types, southern pine, and western pine

Kathy Shaffer, American Forest and Paper Association, Suite 800, 1111 19th Street NW, Washington, DC 20036 (202) 463–2754

#### 13.2 Softwoods

Western Wood Products Association, Yeon Building, 522 Southwest Fifth Avenue, Portland, OR 97204–2122 (503) 224–3930

#### 13.3 Hardwood flooring

Patsy Davenport, National Oak Flooring Manufactures Association, P.O. Box 3009, Memphis, TN 38173-0009 (901) 526-5016

### 14.1 Iron and steel; pig iron and iron products; steel, raw and semifinished; and steel mill products

Janet Nash, American Iron and Steel Institute, Suite 1300, 1101 17th Street Nw, Washington, DC 20036-4700 (202) 452-7203 or (202) 452-7201

#### 14.2 Iron and steel scrap and pig iron consumption

David Kulha, U.S. Department of Interior, Bureau of Mines, Branch of Metals, Ms-9703, 810 7th Street NW, Washington, DC 20241 (202) 501–9520

#### 14.3 Ore

William S. Kirk, U.S. Department of Interior, Bureau of Mines, Branch of Metals, Ms-5208, 810 7th Street NW, Washington, DC 20241 (202) 501-9430

14.4 U.S. and foreign ores: Receipts and consumption at iron and steel plants and stocks at furnace yards and U.S. docks Joy Earlywine, American Iron Ore Association, 915 Rockefeller Building, 614 Superior Avenue West, Cleveland, он 44113–1383 (216) 241–8261

#### 14.5 Pig iron and iron products castings and steel castings

Renee Reda, U.S. Department of Commerce, Bureau of the Census, Industry Division, Metals and Industrial Machinery Branch, FOB 4, Room 2207, Washington, DC 20233 (301) 763–7865

#### 14.6 Producing steel mills, inventory

Michele L. Chaney, U.S. Department of Commerce, Bureau of the Census, Industry Division, Metals and Industrial Machinery Branch, FOB 4, Room 2207, Washington, DC 20233 (301) 763–7863

#### 14.7 Aluminum

Patricia Plunkert or Cindy Lui, U.S. Department of Interior, Bureau of Mines, Branch of Metals, Ms-5208, 810 7th Street NW, Washington, DC 20241 (202) 501–9419

#### 14.8 Aluminum products

Mary Ellickson, U.S. Department of Commerce, Bureau of the Census, Industry Division, Metals and Industrial Machinery Branch, FOB 4, Room 2207, Washington, DC 20233 (301) 763–7862

#### 14.9 Copper

Dan Edelstein, U.S. Department of Interior, Bureau of Mines, Branch of Metals, MS-5208, 810 7th Street NW, Washington, DC 20241 (202) 501–9415

#### 14.10 Lead

Jerry Smith, U.S. Department of Interior, Bureau of Mines, Branch of Metals, Ms-5208, 810 7th Street NW, Washington, DC 20241 (202) 501–9444

### 14.11 Lead producers' stocks and slab zinc production and producers' stocks

Robert Clock, American Bureau of Metal Statistics, Inc., 400 Plaza Drive, P.O. Box 1405, Secaucus, NJ 07094-0405 (201) 863-6900

#### 14.12 Tin

James Carlin, U.S. Department of Interior, Bureau of Mines, Branch of Metals, Ms-5208, 810 7th Street NW, Washington, DC 20241 (202) 501–9426

#### 14.13 Zinc

Bob Reese, U.S. Department of Interior, Bureau of Mines, Branch of Metals, Ms-5208, 810 7th Street NW, Washington, DC 20241 (202) 501–9422

#### 14.14 Industrial heating equipment

Data not available for public distribution.

#### 14.15 Materials handling equipment

Elizabeth Baatz, Cahners Economics, Cahners Building, 275 Washington Street, Newton, MA 02158-1630 (617) 630-2114

#### 14.16 Industrial supplies, machinery, and equipment

Chuck Moore, American Supply & Machinery Manufacturers' Association, Inc., 1300 Sumner Avenue, Cleveland, он 44115–2851 (216) 244–7333

#### 14.17 Industrial suppliers distribution of machinery and equipment

Steve Hern, Industrial Distribution Association, Suite 201, 3 Corporate Square, Atlanta, GA 30329 (404) 325–2776

#### 14.18 Fluid power products shipments indexes

Steven Latin-Kasper, National Fluid Power Association, Suite 311, 3333 North Mayfair Road, Milwaukee, w1 53222 (414) 778–3358

#### 14.19 Machine tools

Steve Bell, The Association for Manufacturing Technology, 7901 West Park Drive, McLean, va 22102-4269 (703) 827-5262

#### 14.20 Tractors used in construction, shipments

Richard Wiesler, U.S. Department of Commerce, Bureau of the Census, Industry Division, Metals and Industrial Machinery Branch, FOB 4, Room 2207, Washington, DC 20233 (301) 763–7867

#### 14.21 Battery shipments

Mary Warmowski, Smith Bucklin & Associates Inc., 401 North Michigan Avenue, Chicago, Il 60611-4267 (312) 644-6610

#### 14.22 Radio factory sales and television set production

Tom Godsman, Electronic Industries Association, 2001 Pennsylvania Avenue NW, Washington, DC 20006–1813 (202) 457–4958

#### 14.23 Household major appliances and ranges

Alane Mackay, Association of Home Appliance Manufacturers, 20 North Wacker Drive, Chicago, 1L 60606 (312) 984–5800, ext. 315

#### 14.24 Vacuum cleaners

Clifford J. Wood, Vacuum Cleaner Manufacturers Association, Box 2642, North Canton, OH 44720 (216) 499–5998

#### 14.25 Furnaces

Gary Thibeault, Gas Appliance Manufacturers Association, Inc., 1901 North Moore Street, Arlington, va 22209 (703) 525–9565

#### 14.26 Water heaters

Frank Stanonik, Gas Appliance Manufacturers Association, Inc., 1901 North Moore Street, Arlington, va 22209 (703) 525–9565

#### 15.1 Coal and coke

U.S. Department of Energy, National Energy Information Center, Forrestal Building, EI-231, 1000 Independence Avenue sw, Washington, DC 20585 (202) 586-8800

### 15.2 Petroleum coke production and stocks and petroleum and products

Morris Rice, U.S. Department of Energy, Office of Oil and Gas, EI-424, Forrestal Building, Room 2E068, Washington, DC 20585 (202) 586-4634

### 16.1 Pulpwood, waste paper, woodpulp, and paper and paper products

American Forest and Paper Association, Paper Information Center, 1111 19th Street NW, Washington, DC 20036 (1-800) 878-8878

#### 16.2 Newsprint

Jan Liddy, American Forest and Paper Association, 11th Floor, 260 Madison Avenue, New York, NY 10016 (212) 340-0649

#### 16.3 Paper products

Peggy Gilmore, Fibre Box Association, 2850 Golf Road, Rolling Meadows, 1L 60008 (708) 364–9600

#### 17.1 Tires and tubes

Dan Mustico, Rubber Manufacturers Association, 1400 K Street NW, Washington, DC 20005 (202) 682-4863

#### 18.1 Portland cement

Cheryl Solomon, U.S. Department of Interior, Bureau of Mines, Branch of Industrial Minerals, Ms-5209, 810 7th Street NW, Washington, DC 20241 (202) 501–9393

#### 18.2 Clay construction products

Robert Miller, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2212, Washington, DC 20233 (301) 763–4484

#### 18.3 Flat glass shipments

Susan Sundermann, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2203, Washington, DC 20233 (301) 763–2376

#### 18.4 Glass containers

Sheila Proudfoot, U.S. Department of Commerce, Bureau of the Census, Industry Division, Wood and Chemical Products Branch, FOB 4, Room 2203, Washington, DC 20233 (301) 763–7574

#### 18.5 Gypsum and products

Lawrence Davis, U.S. Department of Interior, Bureau of Mines, Branch of Industrial Minerals, Ms-5209, 810 7th Street NW, Washington, DC 20241 (202) 501-9386

#### 19.1 Cotton production

Roger Lathan, U.S. Department of Agriculture, National Agricultural Statistical Service, Crops Branch, Room 5175, 14th & Independence Avenue sw, Washington, DC 20250–2000 (202) 720–5944

#### 19.2 Cotton consumption and spindle activity

Karen Harshbarger, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763-4476

#### 19.3 Cotton stocks in the United States

Tim Barry, New York Cotton Exchange, Market Surveillance Division, 8th Floor, 4 World Trade Center, New York, NY 10048 (212) 938–7909

#### 19.4 Cotton farm prices, American upland

Debra Kenerson, U.S. Department of Agriculture, National Agricultural Statistical Service, Estimates Division, Economic Statistics Branch, Commodity Prices Section, 14th & Independence Avenue sw, Washington, DC 20250-2000 (202) 690-3234

#### 19.5 Cotton prices, strict low middling

Leslie Meyer, U.S. Department of Agriculture, Economic Research Service, Commodity Economics Division, Crops Branch, Room 1034, 1301 New York Avenue NW, Washington, DC 20005–4788 (202) 219–0840

### 19.6 Cotton cloth broadwoven goods and production of wool broadwoven goods

Keith Featherstone, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763–2553

#### 19.7 Manmade fibers and manufactures

Kim Costa, Fiber Economics Bureau, Inc., 101 Eisenhower Parkway, Roseland, NJ 07068 (201) 228–1107

#### 19.8 Wool consumption

Maria Dixon, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763–5895

#### 19.9 Wool imports and wool prices

John Lawler, U.S. Department of Agriculture, Economic Research Service, Commodity Economics Division, Crops Branch, Room 1034, 1301 New York Avenue NW, Washington, DC 20005–4788 (202) 219–0840

#### 19.10 Floor coverings

Amelia Williams, American Textile Manufacturers Institute, Inc., Office of Chief Economist, Suite 900, 1801 K Street NW, Washington, DC 20006 (202) 862-0547

#### 19.11 Apparel

Andrew Kraynak, U.S. Department of Commerce, Bureau of the Census, Industry Division, Food, Textiles, and Apparel Branch, FOB 4, Room 2132, Washington, DC 20233 (301) 763–7108

#### 19.12 Hosiery shipments

Mary Ann Blansett, National Association of Hosiery Manufacturers, 200 North Sharon Amity Road, Charlotte, NC 28211-3004 (704) 365-0913

### 20.1 Aerospace vehicles, truck trailer and chassis shipments, and trailer chassis sold separately

Lynn Sizemore, U.S. Department of Commerce, Bureau of the Census, Industry Division, Electrical and Transportation Branch, FOB 4, Room 2231, Washington, DC 20233 (301) 763-5547

### 20.2 Passenger cars, trucks, and buses factory sales and retail inventories of trucks and buses

American Automobile Manufacturers Association, Suite 300, 7430 Second Avenue, Detroit, MI 48202 (313) 872-4311

### 20.3 Passenger car retail sales, inventories, and inventory-sales ratios

U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Wealth Division, BE-54, 1441 L Street NW, Washington, DC 20230 (202) 606-5304

#### 20.4 Passenger car imports

Mike Hagey, U.S. International Trade Commission, Machinery and Transportation Division, 500 E Street sw, Washington, DC 20436 (202) 205-3392

#### 20.5 Registrations of passenger cars, trucks, and buses

R.L. Polk & Company, Statistical Services Division, 1155 Brewery Park Boulevard, Detroit, MI 48207–2697 (313) 393–0880

#### 20.6 Retail sales of trucks and buses

U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Wealth Division, BE-54, 1441 L Street NW, Washington, DC 20230 (202) 606–5304

#### 20.7 Railroad equipment

Association of American Railroads, Communications Department, 50 F Street Nw, Washington, DC 20001-1564 (202) 639-2555

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<sup>\*</sup> Joint release by the Bureau of the Census and BEA.

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