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Gross State Product by Industry, 1963-86

IN this article, BEA introduces annual estimates of gross state product (GSP) by component and by industry for each State and the District of Columbia for the period 1963-86 (tables 1 and 2). These estimates are the most comprehensive measures of production available for States and will improve the basis for analyzing and forecasting trends in State economic activity.

GSP is the gross market value of the goods and services attributable to labor and property located in a State. It is the State counterpart of the Nation's gross domestic product (GDP).

BEA prepares GSP estimates for 61 industries. For each industry, GSP is composed of four components: (1) Compensation of employees (hereafter termed "compensation"); (2) proprietors' income with inventory valuation adjustment and capital consumption allowances ("proprietors' income"); (3) indirect business tax and nontax liability ("IBT"); and (4) other, mainly capital-related, charges ("capital charges").¹ For the farming, mining, construction, and manufacturing industries, BEA directly estimates total GSP and three components—compensation, proprietors' income, and IBT—and then subtracts the three components from GSP to get capital charges. For the other industries, BEA directly estimates each

of the four components of GSP and then sums the components to get GSP.

Previously, earnings by place of work—estimated in connection with State personal income—was the only part of GSP that BEA published regularly by industry. Earnings includes most of the compensation and proprietors' income GSP components, but excludes capital charges and IBT. (Table A shows in detail how GSP corresponds to earnings and GDP.) The capital charges component reflects capital stocks and profit rates by State. The IBT component reflects liabilities charged to business expense, most of which are sales and property taxes levied by State and local governments.²

In the absence of State estimates of capital charges and IBT, earnings (or wages and salaries) have often been "blown up" to approximate GSP in nonfarm industries.³ This procedure assumes that each State's share of total GSP for the Nation in an industry equals its share of earnings in the industry.⁴ That is, blowups assume away State-to-State differences in capital stocks and rates of return to capital and in tax structures and rates. Blowups are particularly prone to error where earnings are a small portion of GSP, such as in the real estate, oil and gas extraction, petroleum refining, and other capital-intensive industries. BEA's GSP estimates overcome, for the most part, the limitations of blowup estimates.

BEA estimates GSP in both current and constant dollars. Current-dollar

GSP estimates reflect changes in the command over resources associated with production and are particularly useful for analyzing the differential regional effects of large changes in relative output prices, such as the changes in energy and agricultural prices in the 1970's and 1980's.

Constant-dollar GSP estimates reflect changes in the physical volume of production and are particularly useful for comparing regional trends in labor productivity or for projecting the volume of industrial output. Consequently, the constant-dollar GSP estimates will be used in the set of BEA regional projections to be published in 1990 (when the GSP estimates will be updated).

The constant-dollar GSP estimates are now based on national price deflators by industry. At some point, it may be possible to develop State price data to improve the constant-dollar estimates. Such data would improve the estimates for those industries—such as energy, construction, real estate, and State and local government—in which prices vary regionally.

Analyzing Regional Growth Patterns Using GSP

This section focuses on changes in regional shares of national totals for GSP and its components, emphasizing what the GSP estimates show about regional growth patterns that is not shown by compensation—the component that corresponds most closely to the measures (earnings or wages and salaries) commonly used in blowups. The discussion is based on current-dollar estimates for economic census years 1967, 1977, and 1982, and for 1986 (the most recent year for which estimates have been made).

From 1977 to 1986, the share of economic activity generated in the Na-

NOTE.—Daniel Garnick, Edward Trott, Jr., and Vernon Renshaw developed the methodology for the estimates, and the last two took the lead in preparing and evaluating the estimates, under the supervision of Hugh Knox. Elizabeth Rozycki, Bruce Levine, and Kenneth Horowitz participated in the preparation of the estimates; they were assisted by Jamila Bomani, Shirley Bell, Shirley Watson, and Arletha Mason. Wendy Graves provided secretarial assistance.

1. For a discussion of the sources and methods for the GSP estimates, including a list of the 61 industries for which estimates are available, see the appendix.

2. Property taxes on owner-occupied housing are included because owner-occupied housing is treated as business in the national income and product accounts.

3. For farming, the U.S. Department of Agriculture regularly publishes the data items needed to estimate GSP directly.

4. See John W. Kendrick and C. Milton Jaycox, "The Concept and Estimation of Gross State Product," *Southern Economic Journal* 32 (October 1965): 153-68.

tion's interior regions—whether measured by GSP or compensation—declined more than 3 percentage points, while the share generated by regions along the Atlantic and Pacific coasts increased (table B). Relative weakness in the interior regions was apparent in the sharp declines in the manufacturing and farming industries of the Great Lakes and Plains regions in the late 1970's and early 1980's and then spread to the Southwest, Rocky Mountain, and interior Southeast regions after 1982, as declining oil prices adversely affected the regions' energy-oriented industries. In both the Great Lakes region in 1977-82 and in the energy-oriented regions in 1982-86, the capital charges component of GSP had substantially larger

relative declines than did compensation.

Manufacturing in the Great Lakes region

The Great Lakes region dominated the relative economic decline of the interior regions in both manufacturing and all industries combined from 1977 to 1982. Its share of GSP for manufacturing declined 5.5 percentage points (to 23.0 percent of the Nation), and its share of GSP for all industries declined 2.9 points (to 16.9 percent). The other interior regions combined, in contrast, increased their share of both manufacturing GSP (by 1.9 points) and all-industry GSP (2.6 points) over this period.

The Great Lakes' relative loss of both manufacturing and all-industry GSP occurred in part because the region's manufacturing profitability declined, relative to other regions, from the late 1960's. From 1967 to 1982, capital charges in manufacturing fell as a percentage of manufacturing GSP by 8.9 points (to 16.4 percent) in the Great Lakes region; in all other regions combined, the percentage fell only 1.8 points (to 21.8 percent). In addition, the region's loss reflected its heavy dependence on manufacturing industries that were hard hit by the 1980 and 1981-82 recessions and by increasing competition from foreign producers.

Forecasts and projections—including those of BEA—made in the late

Table A.—The Relation of Gross National Product and Gross Domestic Product to the Totals of State Earnings and Gross State Product, 1982

(Billions of dollars)

	Gross national product ¹	Rest of the world ¹	Gross domestic product ¹	State earnings ²	Gross state product				Total
					Compensation of employees	Proprietors' income with IVA and CCA	IBT and nontax liability	Capital-related charges	
Compensation of employees:									
Wages and salaries.....	1,586.1	-0.1	1,586.2	³ 1,579.5	⁴ 1,579.1				1,579.1
Supplements to wages and salaries:									
Employer contributions for social insurance.....	157.3		157.3		⁵ 158.7				153.7
Other labor income.....	163.6		163.6	⁶ 163.5	⁶ 163.5				163.5
Proprietors' income with inventory valuation and capital consumption adjustments:									
Farm:									
Proprietors' income with inventory valuation adjustment.....	33.9		33.9	⁷ 32.4		33.9			33.9
Capital consumption adjustment.....	-9.3		-9.3	-9.3		(⁸)			
Nonfarm:									
Proprietors' income.....	148.5		148.5	148.5		148.5			148.5
Inventory valuation adjustment.....	-2.5		-2.5	-2.5		-2.5			-2.5
Capital consumption adjustment.....	2.9		2.9	2.9		(⁸)			
Rental income of persons with capital consumption adjustment:									
Rental income of persons.....	54.5		54.5				54.5		54.5
Capital consumption adjustment.....	-40.8		-40.8				(⁸)		
Corporate profits with inventory valuation and capital consumption adjustments:									
Profits before tax.....	169.6	28.0	141.5				141.5		141.5
Inventory valuation adjustment.....	-10.4		-10.4				-10.4		-10.4
Capital consumption adjustment.....	-9.2		-9.2				(⁸)		
Net interest.....	272.3	23.2	249.1				249.1		249.1
Business transfer payments.....	14.3		14.3				14.3		14.3
Indirect business tax and nontax liability.....	258.8		258.8			258.8			258.8
Less: Subsidies less current surplus of government enterprises.....	8.7		8.7				8.7		8.7
Capital consumption allowances with capital consumption adjustment:									
Capital consumption allowances:									
Corporate.....	225.7		225.7				225.7		225.7
Noncorporate.....	95.1		95.1			95.1			95.1
Less: Capital consumption adjustment:									
Corporate.....	-9.2		-9.2				(⁸)		
Noncorporate.....	-53.1		-53.1			⁹ -5.9			-5.9
Statistical discrepancy.....	-1		-1						
Total.....	3,166.0	51.2	3,114.8	1,917.0	1,896.3	282.9	258.8	666.1	3,104.1

IVA Inventory valuation adjustment
CCA Capital consumption allowance
IBT Indirect business tax

1. For definitions, see SURVEY OF CURRENT BUSINESS, July 1987, pp. 104-105.

2. For definitions, see *State Personal Income: Estimates for 1929-82 and a Statement of Sources and Methods* (1984).

3. Differs from the gross domestic product entry in that it excludes the wages and salaries of Federal civilian and military personnel stationed abroad (\$8.8 billion) and includes wages and salaries paid to students by State colleges and universities (\$1.7 billion), other statistical revisions not yet incorporated into gross domestic product (\$0.1 billion), and wages and salaries paid to U.S. residents employed by international organizations and by foreign embassies and consulates located in the United States (\$0.3 billion).

4. Differs from the gross domestic product entry in that it excludes the wages and salaries of Federal civilian and military personnel stationed abroad (\$8.8 billion) and includes wages and salaries paid to students by State colleges and universities (\$1.7 billion).

5. Differs from the gross domestic product entry in that it excludes employer contributions for social insurance of Federal civilian and military personnel stationed abroad (\$3.6 billion).

6. Differs from the gross domestic product entry in that it excludes other labor income of Federal civilian personnel stationed abroad (\$0.1 billion).

7. Differs from the gross domestic product entry because different data sources are used.

8. When income and capital consumption allowances are parts of the same aggregate, the two associated entries for the capital consumption adjustment cancel. In the case of the capital consumption allowance for buildings and equipment owned and used by nonprofit institutions serving individuals, there is no income, and the capital consumption adjustment of \$5.9 billion is included in gross product.

Note.—Not all line items of gross domestic product or gross state product are available by industry.

1970's substantially underestimated the Great Lakes' relative decline from 1977 to 1982. Apart from not anticipating the severity of the 1981-82 recession, the forecasts were based on trends in compensation only. While the Great Lakes' share of compensation in manufacturing had been nearly constant in the decade preceding the forecasts, its share of capital charges in manufacturing had declined substantially.

[Percentage-point change in share of U.S. total for Great Lakes manufacturing]

	1967-77	1977-82
GSP.....	-1.30	-5.50
Capital charges.....	-3.56	-9.19
Compensation.....	-.07	-4.78

Although the Great Lakes region dominated the decline of the interior regions from 1977 to 1982, it had the smallest decline in the all-industry GSP share of any interior region from 1982 to 1986. Some of the Great Lakes' manufacturing industries that had been hard hit—such as the motor vehicles industry—recovered well from the 1981-82 recession. In addition, other manufacturing operations were restructured to improve their relative profitability. In the meantime, the interior regions that had been gaining GSP share began to decline.

Mining in three interior regions

The relative economic decline of the interior regions from 1982 to 1986 was dominated by decline in regions dependent on energy-related mining. Each of the three interior regions with large mining sectors lost share of all-industry GSP from 1982 to 1986 after gaining share from 1977 to 1982.

Energy-related mining—that is, oil and gas extraction and coal mining—dominates the U.S. mining industry, and, even with growth of oil production in Alaska, energy-related mining is concentrated in the interior regions. The Southwest, Rocky Mountain, and interior Southeast regions combined accounted for 75 percent of the Nation's mining GSP in 1977 and still accounted for over 70 percent in 1986.

Large changes in world oil prices affect the States with energy-related mining because they bring large changes in the value of production (GSP) in mining. These changes in production, in turn, can lead to large changes in oil and gas exploration and in related industries—for example, in production of oil drilling equipment and in selected distributive and service industries.

Because compensation is generally small relative to IBT and capital

charges in energy-related mining (especially in oil and gas extraction), compensation alone provides an inadequate basis for analyzing the economic effects of the ups and downs of oil prices. Substantial oil price increases in 1973 and 1979 (associated with the OPEC oil embargo and disruption of oil production in Iran, respectively) increased the value of U.S. oil, gas, and coal production and stimulated domestic exploration up through the 1981-82 recession. As a result, most of the Southwest and Rocky Mountain States and several interior Southeast States (especially Louisiana) experienced a growing share of all-industry GSP. In all three regions, the share of all-industry GSP increased faster than the share of all-industry compensation from 1977 to 1982, reflecting the substantial increase in profits for many producers involved in energy-related mining. In the interior Southeast, the share of all-industry GSP increased while the share of compensation actually declined slightly. In the Southwest, where three of the four States have important oil and gas extraction industries, the share of GSP increased by more than 2 percentage points.

Oil prices peaked in 1981, and their subsequent fall began to eliminate the gains in share of all-industry GSP in the Southwest, Rocky Mountain, and interior Southeast regions. The Southwest and Rocky Mountain regions each had declines in share from 1982 to 1986 that amounted to more than one-half of their gains from 1977 to 1982, and the interior Southeast experienced a decline more than twice its earlier gain. As in the case of the 1977-82 "boom," the 1982-86 "bust" resulted in larger changes in share of all-industry GSP than compensation for all three regions.

Appendix—Sources and Methods

The GSP estimates presented in this article are an extension of the benchmark estimates published in a 1985 BEA staff paper.⁵ The new estimates include (1) updates of the 1963,

5. See BEA Staff Paper 42, *Experimental Estimates of Gross State Product by Industry* (Washington, DC: U.S. Government Printing Office, 1985). The paper is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; order no. PB-85-240-885; price \$13. The paper contains an extensive discussion of sources and methods.

Table B.—GSP and Compensation as a Share of U.S. Total, All Industries, for Regions for Selected Years, 1967-86

	Percent of U.S. total				Percentage-point change in share of U.S. total		
	1967	1977	1982	1986	1977-86	1977-82	1982-86
Coastal regions:							
Total:							
GSP.....	52.88	51.77	52.04	55.00	3.23	0.27	2.96
Compensation.....	55.21	53.31	54.21	56.60	3.29	.90	2.39
New England:							
GSP.....	5.92	5.25	5.30	5.87	.62	.05	.57
Compensation.....	6.35	5.59	5.73	6.24	.65	.14	.51
Mideast:							
GSP.....	23.01	19.97	18.88	19.52	-.45	-1.09	.64
Compensation.....	24.55	21.07	20.10	20.42	-.65	-.97	.32
Far West:¹							
GSP.....	14.56	15.74	16.37	16.96	1.22	.63	.59
Compensation.....	14.87	15.58	16.52	17.02	1.44	.94	.50
Coastal Southeast:²							
GSP.....	9.40	10.81	11.49	12.66	1.85	.68	1.17
Compensation.....	9.44	11.07	11.86	12.91	1.84	.79	1.05
Interior regions:							
Total:							
GSP.....	47.12	48.23	47.96	45.00	-3.23	-.27	-2.96
Compensation.....	44.79	46.69	45.79	43.40	-3.29	-.90	-2.39
Great Lakes:							
GSP.....	22.00	19.83	16.95	16.72	-3.11	-2.88	-.23
Compensation.....	21.81	20.55	17.73	17.32	-3.23	-2.82	-.41
Plains:							
GSP.....	7.61	7.54	7.33	6.98	-.56	-.21	-.35
Compensation.....	6.92	7.09	6.83	6.55	-.54	-.26	-.28
Southwest:							
GSP.....	7.27	9.43	11.50	10.26	.83	2.07	-1.24
Compensation.....	6.71	8.33	10.23	9.41	1.08	1.90	-.82
Rocky Mountain:							
GSP.....	2.22	2.74	3.15	2.87	.13	.41	-.28
Compensation.....	2.07	2.62	2.97	2.73	.11	.35	-.24
Interior Southeast:³							
GSP.....	8.03	8.70	9.04	8.17	-.53	-.34	-.87
Compensation.....	7.29	8.10	8.03	7.40	-.70	-.07	-.63

1. Includes Alaska and Hawaii.

2. Consists of Virginia, North Carolina, South Carolina, Georgia, and Florida.

3. Consists of West Virginia, Kentucky, Tennessee, Arkansas, Louisiana, Mississippi, and Alabama.

1967, 1972, and 1977 benchmark-year estimates published previously, (2) 1982 benchmark-year estimates, and (3) annual estimates for nonbenchmark years. To make the previously published benchmark-year estimates consistent with the 1982 estimates, they are adjusted to incorporate both the 1985 revisions to the national income and product accounts and re-

cently completed revisions to the State personal income series.

Compensation and proprietors' income

Annual estimates by State and industry of two components of compensation—wages and salaries, and other labor income—as well as of proprietors' income with inventory valuation adjustment (IVA) are from BEA's State personal income series.⁶ Wages and salaries, in turn, is part of the basis for assigning to States the component of compensation not measured in the personal income account—employer contributions for social insurance—and proprietors' income with IVA is the basis for assigning noncorporate capital consumption allowances.

Capital charges

For the benchmark years, the sources and methods for capital charges differ among industries.

Goods-producing industries.—For 27 agricultural, mining, construction, and manufacturing industries, BEA estimates capital charges by first estimating total GSP and then subtracting compensation, proprietors' income, and IBT. Economic census data on value added in production, adjusted to conform to BEA's income and product definitions, are the basis for estimating total GSP.

Regulated distributive and service industries.—For seven transportation, communication, utility, and finance industries, data contained in financial reports filed by firms with regulatory agencies are the basis for estimating capital charges. BEA employs indicators of capital stock or its use—for example, airline boardings—to assign capital charges for multistate firms to States.

Real estate industry.—For this industry, BEA mainly uses data from the population and housing censuses and the U.S. Department of Agriculture to assign capital charges to States in accordance with the location of real property.

Tables 1 and 2 follow; text continues on p. 46.

Table C.—Industries for Which GSP Estimates Are Available

	1972 SIC code
Agriculture, forestry, and fisheries	A
Farms.....	01-02
Agricultural services, forestry, and fisheries.....	07-09
Mining	B
Metal mining.....	10
Coal mining.....	11-12
Oil and gas extraction.....	13
Nonmetallic minerals, except fuels.....	14
Construction	C
Manufacturing	D
Durable goods	
Lumber and wood products.....	24
Furniture and fixtures.....	25
Stone, clay, and glass products.....	32
Primary metal industries.....	33
Fabricated metal products.....	34
Machinery, except electrical.....	35
Electric and electronic equipment.....	36
Motor vehicles and equipment.....	371
Transportation equipment, excluding motor vehicles.....	372-79
Instruments and related products.....	38
Miscellaneous manufacturing industries.....	39
Nondurable goods	
Food and kindred products.....	20
Tobacco manufactures.....	21
Textile mill products.....	22
Apparel and other textile products.....	23
Paper and allied products.....	26
Printing and publishing.....	27
Chemicals and allied products.....	28
Petroleum and coal products.....	29
Rubber and miscellaneous plastic products.....	30
Leather and leather products.....	31
Transportation and public utilities	E
Railroad transportation.....	40
Local and interurban passenger transit.....	41
Trucking and warehousing.....	42
Water transportation.....	44
Transportation by air.....	45
Pipelines, except natural gas.....	46
Transportation services.....	47
Communication.....	48
Electric, gas, and sanitary services.....	49
Wholesale trade	F
Retail trade	G
Finance, insurance, and real estate	H
Banking.....	60
Credit agencies other than banks.....	61
Holding companies and investment services.....	62,67
Insurance carriers.....	63
Insurance agents, brokers, and services.....	64
Real estate.....	65-66
Services	I
Hotels and other lodging places.....	70
Personal services.....	72
Business services.....	73
Auto repair services and garages.....	75
Miscellaneous repair services.....	76
Motion pictures.....	78
Amusement and recreation services.....	79
Health services.....	80
Legal services.....	81
Educational services.....	82
Social services and membership organizations.....	83,86
Miscellaneous professional services.....	84,89
Private households.....	88
Government	
Federal civilian government.....	
Federal military government.....	
State and local government.....	91-96

6. See *State Personal Income: Estimates for 1929-82 and a Statement of Sources and Methods* (1984). (Available from: Economic and Statistical Analysis/BEA, U.S. Department of Commerce, Citizens and Southern National Bank, 222 Mitchell Street, P.O. Box 100606, Atlanta, GA 30384; accession no. BEA REM 84-101; price \$18.) In energy-producing mining industries, proprietors' income with IVA is adjusted to reflect State of production, rather than State of receipt, of income. This adjustment is made mainly to account for income received by limited partners not living in the State where the income is produced.

Data Availability

The GSP estimates presented here, as well as more detailed tabulations, are available on magnetic tape and personal computer diskettes. A magnetic tape containing total GSP by two-digit industry in both current and constant (1982) dollars for the United States, BEA regions, and States costs \$200. Diskettes cost \$20 each and are available by BEA region; a diskette for a region contains estimates for the United States, the BEA region, and each State of the region. (The Southeast region, on two diskettes, costs \$40.)

Orders should be addressed to: Economic and Statistical Analysis/BEA, U.S. Department of Commerce, Citizens and Southern National Bank, 222 Mitchell Street, P.O. Box 100606, Atlanta, GA 30384. Orders must include a check, payable to Economic and Statistical Analysis/BEA. ESA/BEA accession numbers follow.

Magnetic tape..... BEA REA 88-401

Diskettes:

- New England..... BEA REA 88-402
- Mideast..... BEA REA 88-403
- Great Lakes..... BEA REA 88-404
- Plains..... BEA REA 88-405
- Southeast (AL-LA)..... BEA REA 88-406
- Southeast (MS-WV)..... BEA REA 88-407
- Southwest..... BEA REA 88-408
- Rocky Mountain..... BEA REA 88-409
- Far West (plus AK and HI)..... BEA REA 88-410

Table 2.—Gross Product by Industry,

[Millions]

Line	1963	1967	1972	1977	1982	1983	1984	1985	1986	1963	1967	1972	1977	1982	1983
	Colorado									Idaho					
1	6,066	7,861	13,597	24,772	45,252	48,462	53,373	56,713	59,177	1,872	2,402	3,822	6,914	10,432	11,346
2	246	311	544	700	1,218	1,158	1,273	1,335	1,272	264	311	495	646	1,166	1,122
3	25	27	53	101	207	234	247	233	245	8	15	29	60	92	126
4	240	158	263	861	2,079	1,889	1,883	1,867	1,704	33	21	30	81	157	200
5	369	449	1,026	1,656	3,134	3,285	3,601	3,572	3,510	99	136	229	584	385	363
6	906	1,160	1,833	3,490	5,890	6,248	7,069	7,393	7,631	298	350	653	1,184	1,576	1,795
7	500	654	1,000	2,189	3,787	3,950	4,580	4,810	4,961	143	208	390	711	784	937
8	406	506	833	1,301	2,103	2,298	2,489	2,583	2,670	156	172	263	473	792	858
9	623	818	1,317	2,266	4,714	5,332	5,923	6,273	6,564	206	256	373	592	1,089	1,196
10	403	534	989	1,725	3,082	3,131	3,607	3,779	3,784	89	121	199	433	665	696
11	636	834	1,527	2,729	4,717	5,170	5,723	6,069	6,285	207	278	450	773	1,002	1,117
12	1,038	1,362	2,145	4,045	6,973	7,617	8,178	8,904	9,688	285	356	472	845	1,572	1,785
13	696	926	1,694	3,393	7,038	7,734	8,727	9,574	10,218	171	253	416	840	1,481	1,558
14	256	350	613	931	1,384	1,496	1,613	1,714	1,760	48	67	110	194	252	265
15	179	270	462	645	1,046	1,057	1,105	1,220	1,313	35	31	70	109	155	183
16	448	663	1,181	2,230	3,773	4,110	4,422	4,779	5,202	130	178	296	572	890	941
	Wyoming									Far West					
1	1,366	1,586	2,393	5,417	13,056	12,150	12,468	12,777	11,673	83,754	112,487	167,630	291,722	474,230	518,193
2	101	119	189	177	260	205	207	196	188	2,575	2,890	4,390	7,158	11,138	10,136
3	3	5	10	20	31	35	35	30	31	407	575	1,036	2,190	3,437	4,032
4	378	395	513	1,726	4,962	4,362	4,253	4,013	3,079	974	988	1,197	2,963	8,211	8,061
5	88	81	179	484	1,545	1,071	1,114	1,456	1,379	4,804	5,467	8,277	15,949	21,271	22,248
6	88	95	140	309	294	314	312	311	331	18,782	24,553	32,279	54,473	87,517	96,061
7	23	26	45	88	114	112	122	124	125	12,460	16,456	21,126	35,915	57,363	64,533
8	64	70	96	221	180	202	190	187	206	6,322	8,097	11,153	18,558	29,653	31,527
9	153	189	276	493	1,328	1,416	1,623	1,620	1,584	7,094	9,769	14,570	23,741	39,111	43,850
10	38	50	72	137	470	403	426	436	403	5,719	7,636	11,488	20,996	33,584	35,683
11	112	136	216	453	718	710	729	775	766	8,877	11,911	17,694	30,585	48,967	53,837
12	163	197	287	536	1,576	1,650	1,658	1,710	1,621	13,412	18,166	23,142	50,195	76,208	86,080
13	97	121	196	422	812	793	839	882	906	10,468	15,039	23,579	44,409	84,042	93,526
14	37	43	65	113	168	180	195	209	214	2,290	3,345	4,963	7,499	11,209	12,217
15	22	27	42	64	102	112	118	127	134	1,367	2,587	4,139	5,513	9,386	10,069
16	85	127	208	382	791	899	958	1,011	1,087	6,486	9,611	15,875	26,050	40,147	42,404
	Oregon									Washington					
1	5,896	7,869	12,311	21,842	31,148	33,526	36,882	38,922	41,278	10,306	13,814	19,360	35,172	56,745	61,561
2	271	314	445	672	1,103	1,058	1,204	1,186	1,255	392	440	696	1,028	1,725	1,725
3	29	46	74	171	263	369	347	336	374	58	85	142	389	464	645
4	13	20	33	66	47	59	59	62	58	23	15	35	73	127	140
5	335	432	686	1,244	1,053	1,021	1,150	1,261	1,355	501	776	996	2,359	3,809	3,809
6	1,419	1,812	3,051	5,366	6,329	6,900	7,840	7,849	8,181	2,600	3,082	3,963	7,203	9,311	9,980
7	1,030	1,312	2,288	4,084	4,587	5,064	5,871	5,796	6,047	1,759	2,106	2,713	5,163	6,163	6,686
8	390	501	764	1,282	1,742	1,836	1,968	2,053	2,134	840	976	1,250	2,040	3,148	3,294
9	628	807	1,300	2,107	3,184	3,483	3,835	3,989	4,141	814	1,103	1,651	2,842	4,921	5,496
10	372	545	833	1,548	2,449	2,531	2,890	3,069	3,213	823	1,071	1,529	2,774	4,652	4,935
11	638	837	1,258	2,272	2,986	3,212	3,493	3,700	3,913	1,115	1,562	2,198	3,990	6,191	6,865
12	930	1,239	1,708	3,178	5,295	5,842	6,197	6,665	7,365	1,596	2,189	2,745	4,802	8,484	9,402
13	580	851	1,355	2,626	4,395	4,800	5,369	5,914	6,382	929	1,445	2,164	4,363	8,020	8,851
14	175	223	353	534	833	889	969	1,028	1,038	337	496	712	1,260	1,834	2,048
15	38	41	48	80	106	120	122	140	160	266	345	459	808	1,423	1,522
16	466	694	1,167	1,978	3,104	3,239	3,407	3,725	3,843	853	1,205	2,070	3,281	5,782	6,141

Unregulated distributive and service industries.—For 23 transportation, trade, finance, insurance, and service industries, BEA uses economic census data on business receipts or sales and data on wages and salaries to assign capital charges to States.

Government.—For Federal Government enterprises, BEA uses data specific to each enterprise to assign capital charges—that is, surplus or deficit—to States. For State and local government enterprises, BEA uses data on current revenues and expenses, by type of enterprise, from the census of governments to assign the surplus or deficit.

For the nonbenchmark years, capital charges in all industries—except in farming, in real estate, and in manufacturing for 1983 and 1984—are interpolated or extrapolated using movement in wages and salaries and

in national control totals. Farm estimates for all years are directly estimated based on U.S. Department of Agriculture data. Real estate estimates for intercensal years are based on data developed in the course of estimating the rental income of persons in the State personal income series. Manufacturing estimates for 1983 and 1984 are based on data from the Census Bureau's Annual Survey of Manufactures (ASM). As resources permit, BEA expects to incorporate ASM data for additional years (extending backward as well as forward) and other annual data, particularly that contained in regulatory agency reports.

IBT

For the benchmark years and for the years 1983–85, IBT estimates are based on the following data: (1) Taxes

collected, broken down by State and type of tax, from the census of governments (for State and local IBT) and the Internal Revenue Service (for Federal IBT) and (2) taxes collected, broken down by industry and type of tax for the Nation, from BEA's National Income and Wealth Division.⁷

For the nonbenchmark years prior to 1982, estimates for IBT for all levels of government and types of taxes by industry are interpolated, based on movement in compensation of employees, proprietors' income, and national control totals. In the absence of 1986 information, the 1986 estimates were derived using the 1985 distribution by State.

7. IBT estimates for the years 1982–85 are based on more detailed State data by type of tax (25 types of State and local taxes and nearly as many types of Federal taxes) than are the estimates for benchmark years prior to 1982 (10 types of State and local taxes and 5 types of Federal taxes).