



REGIONAL ECONOMIST | APRIL 1993

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President's Message: Economy Poised For Sustainable Growth

Thomas C. Melzer

Last month the 12 Federal Reserve Bank presidents were called to testify before the Senate Committee on Banking, Housing and Urban Affairs. The Committee asked us to discuss the economic conditions in our districts, as well as our views on monetary policy. In preparing for the testimony, we took an extended look at both topics, and I thought I'd share a brief overview of the information with you.

As you know, each Federal Reserve Bank monitors the economies of both its district and the nation. Each economic research staff collects data from various official sources, analyzes it and publishes the findings in publications like *The Regional Economist*. The knowledge we gain from researching the economy helps us make informed decisions about monetary policy.

Official statistics can be a bit dated, however. To supplement them, we maintain a dialogue with the many constituencies that make up our District economy. The anecdotal information we collect through this contact enables us to learn firsthand about regional economic trends before they show up in published data. As an added benefit, we learn how the monetary policy formulated in Washington affects individuals in our District.

With this in mind, let me summarize what I told the Senate Banking Committee about economic conditions in the Eighth District. The good news is that during the recent recession and subsequent recovery, the District generally outperformed the nation. Although we did not enjoy the booms that other areas of the country did in the 1980s, we did not develop the associated busts, particularly in real estate.

Like other parts of the country, we have experienced some significant structural adjustments—primarily in the defense and auto industries.

The performance of District banks has been a bright spot. Banks here have posted strong returns on assets throughout the recession and recovery. Their capital ratios, which are generally more than adequate, put them in excellent position to meet the credit needs of our region.

In the monetary policy arena, the central bank's job, in essence, is to help achieve maximum sustainable economic growth by providing a stable price environment. Over the past decade, policy has been reasonably successful—a long period of moderate growth during which inflation was reduced significantly. Though set back by the recession and an unexpectedly slow recovery, our country's economic foundation today is strong enough for us to reasonably expect a sustainable, low-inflation expansion in the 1990s. No one can know for sure what the future holds, of course, but if accelerating inflation is behind us, the real economy will be on firm footing for genuine progress in the years ahead.



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A Gift Horse for the States: Federal Mandates

Adam M. Zaretsky

At adjournment the 102nd Congress had passed or was debating 265 bills affecting state governments. More often than not, these bills contain mandates that require the states to either act or not act in particular ways. Unfortunately for states, such mandates are typically signed into law without the federal funds to support their execution. The most prominent examples of congressional mandates are environmental regulations, such as the Clean Air and Clean Water Acts, which require state governments to enforce certain prescribed standards.

Frequently, federal mandates accomplish goals of clear national importance. Occasionally, however, the legislation extends an idea that worked in one locale to the entire nation. Edward Koch, former U.S. Congressman and mayor of New York City, argued in a 1980 article that this occurs because members of Congress are often "taken in by the simpl[e]... and flimsy empirical support...offered to persuade [them] that the proposed solution could work throughout the country."¹

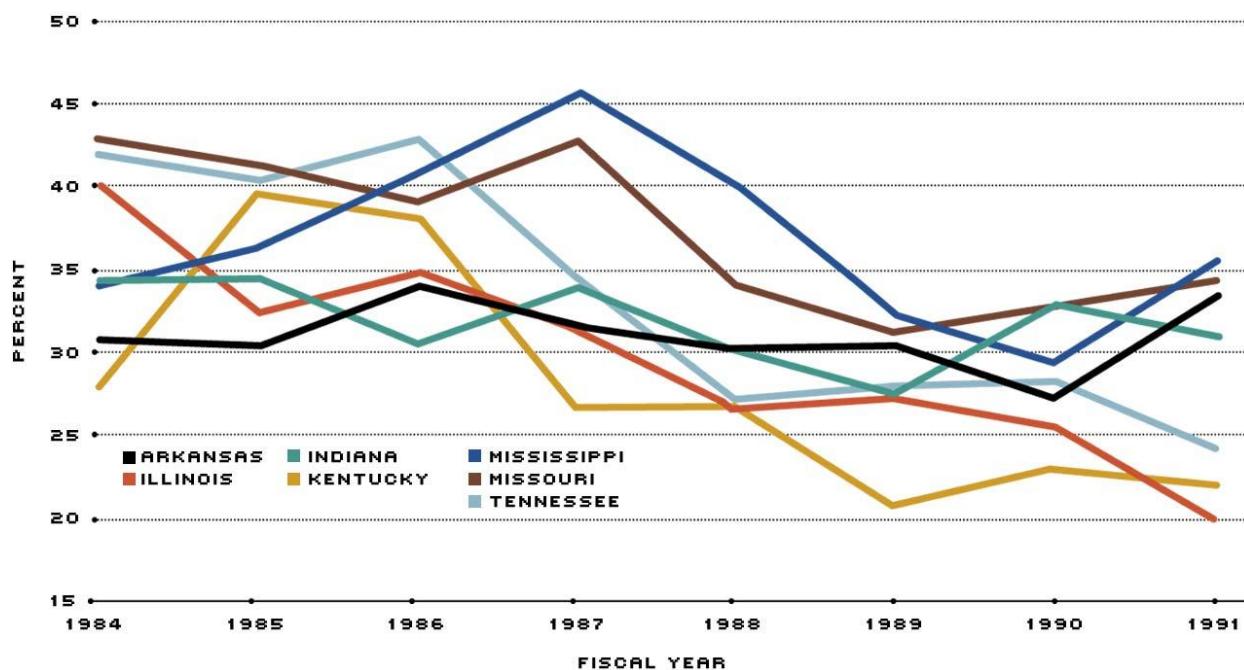
At times, the projected costs of these mandates for state governments can be extremely high. For example, Tennessee, which regularly calculates the projected expense of all federally proposed mandates, reported that in fiscal year 1992 the cost to the state of all existing mandates enacted since 1987 was \$126 million, or 1.3 percent of its annual budget.² By fiscal year 2002, these same mandates are expected to cost Tennessee \$241.8 million each year. In his article, Koch also attempted to assess the impact of 47 federal and state mandates on New York City. To meet the requirements of these mandates through 1984, he explained, would cost the city \$711 million in capital expenditures and \$6.25 billion in expense-budget dollars.³ These amounts, not counting an additional \$1.66 billion in lost revenue, represent about 12 percent of New York City's annual expenditure over the four-year period.

The Influence of the Federal Government

Estimates of mandated costs from states are generally not available. Federal grants-in-aid, however, can provide an indication of a state's dependence on the federal government for funding in a particular sector. Computing ratios of federal grants-in-aid to state expenditure is one way to assess the federal government's impact. Changes in this percentage over time can represent either a change in the amount of federal aid, a change in the level of state expenditure, or some combination of the two. Charts 1 and 2 illustrate the changes in two major areas of federal aid closely related to federally mandated programs—highways and public welfare—for Eighth Federal Reserve District states.

Chart 1

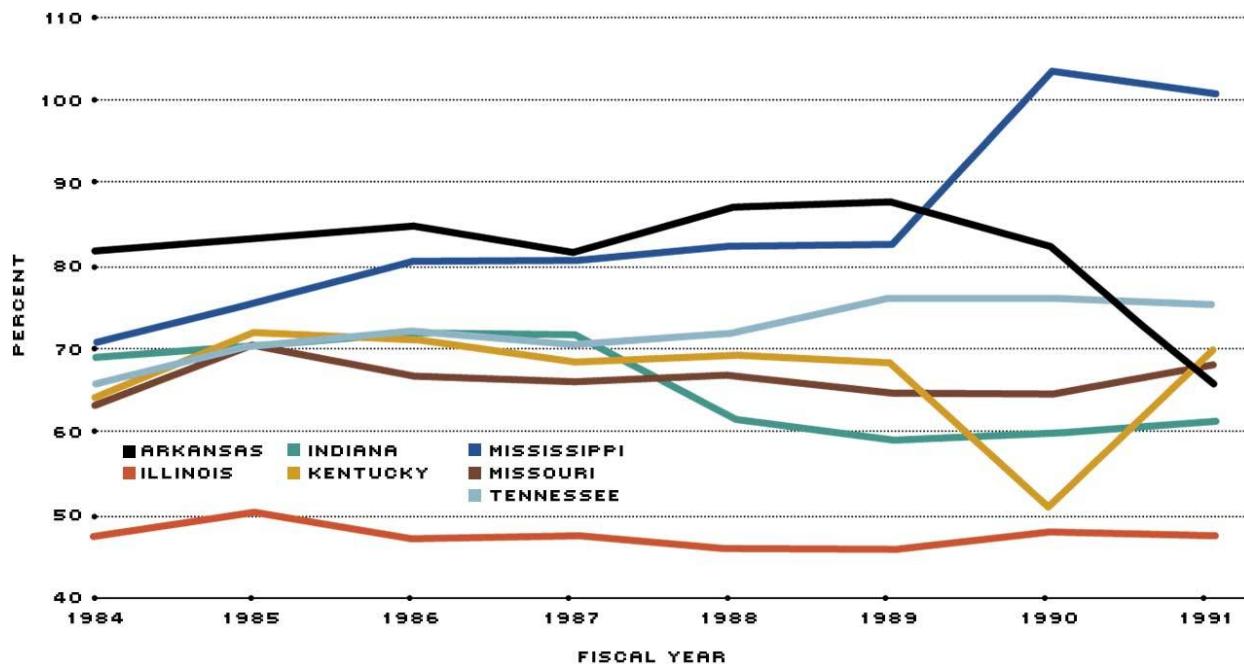
Federal Highway Grants Relative to State Highway Expenditures



Highway funding percentages exhibit the clearest downward trend, with all states declining fairly steadily since about 1987. Illinois, Kentucky and Tennessee actually received less federal aid money in 1991 (in 1987 dollars) than they did in 1984. All District states except Kentucky increased their real state expenditure on highways over the period.

Chart 2

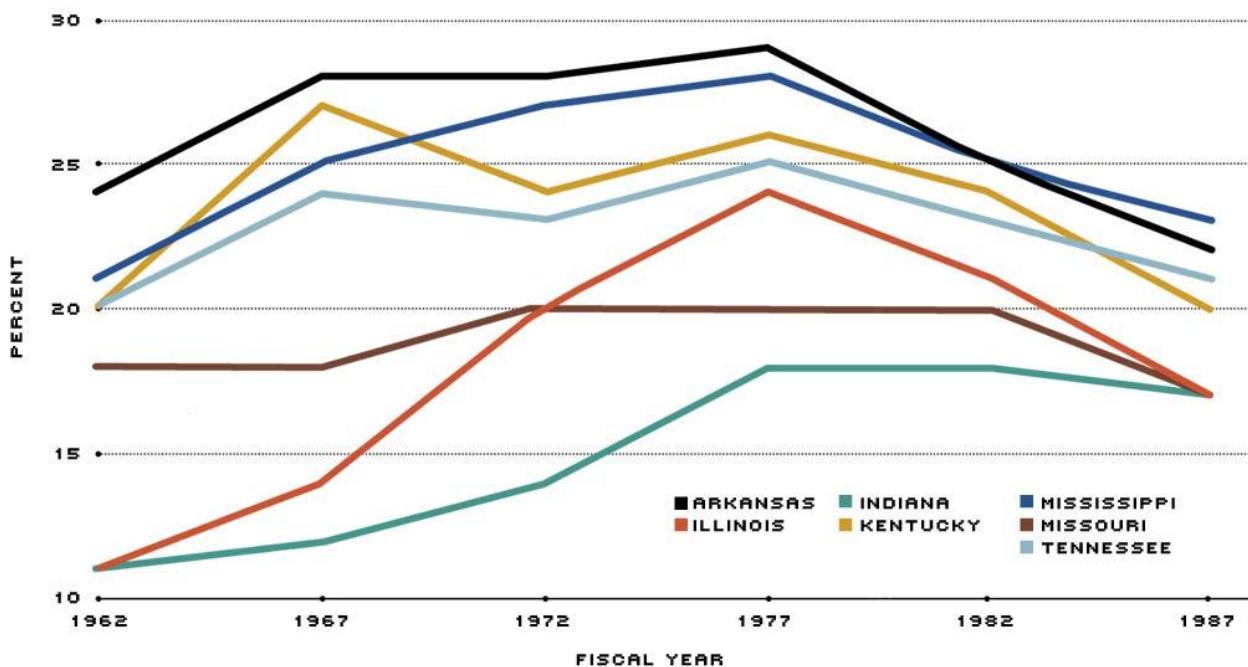
Federal Welfare Grants Relative to State Welfare Expenditures



Welfare funding ratios appear relatively stable over time. Since 1984, however, Arkansas' welfare funding ratio has plummeted 16 percentage points, while Mississippi's ratio jumped 30 points. Arkansas' decline occurred because a 40 percent increase in real state expenditures was met with only a 6 percent increase in federal aid. Conversely, Mississippi's 42 percent increase in the amount of federal grants was met with only an additional 17 percent from the state. No state's real level of federal aid or expenditure declined over the period.

Chart 3

State and Local Government General Revenue from Federal Government



Federal grants to state and local governments peaked in the late 1970s and have declined ever since.

Recent legislation continues the federal government's influence over state affairs. For example, the Alcohol, Drug Abuse and Mental Health Administration Act of 1992 has a provision that requires states to prohibit the sale of tobacco products to minors under the age of 18 by fiscal year 1994. If they do not, the states risk losing some funding earmarked for substance abuse and mental health. Missouri and Kentucky are both affected by this law. More subtle coercion can be found in the Intermodal Surface Transportation Efficiency Act of 1991. This law offers grant money to states to establish motorcycle helmet and seat belt laws. States not participating in the program by fiscal year 1994 would be required to spend 1.5 percent of their highway money on highway safety programs. Thus, the federal government is not taking away any grant money already promised, but forcing states to participate in a new grant program.

Overall, the federal government has had to learn to maintain its relative power over states without the purse to support its actions. The declining funding ratios depicted in the charts, which result from real state expenditures growing faster than federal grants, support this statement. Most likely, this has occurred because of a tighter federal budget resulting from an increasing deficit. In the process, Congress has found that mandating is a useful tool to accomplish goals without increasing the federal budget. Influence through federal grants and mandates is not a new occurrence, however; the federal government has previously outstretched its (sometimes) empty hands.

The Evolution of Mandates

Historically, the relationship between the federal and state governments was a constitutional question about shared sovereignty. Not until the 1930s and the New Deal did the federal government begin to assume a

similar role to the one it plays today. The Great Society programs of the 1960s greatly enhanced this role as the central government's clout over the state's grew. This shift in governmental balance still concerns many state legislators today. While they complain loudly about the costs of unfunded mandates, the issue they raise is not solely, and perhaps not even chiefly, fiscal. "There [are] coequal concerns about *status*—the pointed lack of respect for the position of states and localities as constitutional entities within the federal system."⁴

Of course, federal grants to states predate the New Deal. As early as 1917, the federal government began giving grants to the states for vocational education programs in high schools. Even earlier, a non-monetary federal grant-in-aid was authorized by the Morrill Act of 1862, which gave land to the states to endow colleges in the agricultural and mechanical arts. By the 1930s, in the midst of depression, Roosevelt's administration demonstrated that the federal government could move, alter and create institutions on a grand scale. A myriad of popular social programs introduced new national institutions. By the 1960s, increased perceptions, reinforced by the civil rights movement, that state governments were performing poorly, even in areas properly assigned to them, turned the populace to the federal government for aid. "Reformers urged the federal government to augment state spending and redirect state and local priorities. The result was a rapid proliferation of grants to states...designed to strengthen their capacities and influence their decisions."⁵

A change in federal-state relations occurred around 1978. Federal grants in-aid, which had increased steadily for 20 years, began to shrink. State and local governments, which had become accustomed to lobbying Congress for additional assistance, were thus introduced to fend-for yourself federalism.⁶ Any monies still being received from the federal government came with attached conditions. Complaints were lodged about these conditions, but the conditions gained legitimacy because acceptance of the grants was clearly voluntary. Basically, accepting federal funds was tantamount to agreeing to be bound by certain national standards and rules.

The imposition of certain national standards and rules is but one of the numerous guises worn by mandates. Not all are related to funding, but all of the following coerce either subtly or openly:

- **Direct orders** mandate state or local action under the threat of criminal or civil penalty, but do not make compliance contingent upon the receipt of federal funds. An example is the application of federal minimum wage and overtime pay provisions to state and local government employees under the Fair Labor Standards Act Amendments of 1974.
- **Crosscutting requirements** are routinely attached to all relevant federally funded programs and address such issues as financial accounting practices, antidiscrimination and minimum wage levels. Examples are Title VI of the Civil Rights Act of 1964, which bars discrimination in federally assisted programs, and the Davis-Bacon Act, which sets minimum wage levels on federally assisted construction projects.
- **Crossover sanctions** compel compliance in one program area by threatening the imposition of penalties (such as grant reduction) in another. An example is the Highway Beautification Act of 1965, which threatened to withhold highway construction funds if states did not comply with billboard control laws.
- **Partial preemptions** establish basic federal standards for a program, but leave execution to the states if they meet these minimum standards or legislate stricter ones. Effectively, partial preemptions turn the states into regional offices of the federal government by requiring states to carry out the directives of the federal government. Examples are the Clean Air, Clean Water and Safer Drinking Water Acts, as well as other environmental programs and the Occupational Safety and Health Act (OSHA).

The courts have also been involved in forcing the hands of the states. Before the mid-1950s, federal courts, interpreting the Constitution, had habitually told states what they might not do. With *Brown v. Board of Education II* in 1955, the Supreme Court began telling states what they *must* do. Federal courts then began

regulating the actions of states in such areas as education, prisons and the mentally ill. Of course, these edicts came without federal funds because courts do not have the power to raise money.

Over time, the Supreme Court has also allowed Congress the leeway it exercises today in legislating regulations to the states. For example, the Court ruled in 1871 (*Collector v. Day*) that a federal income tax could not be levied against a county judge in Massachusetts because he was an employee of a local government. This followed from a 19th-century conception of federalism, that Congress did not regulate state and local governments or tax their employees because it perceived of these governments as separate, sovereign and equal. A changing interpretation of federalism, however, was reflected in the Court's 1939 decision overturning *Collector v. Day*.

More recently, when Congress extended Fair Labor Standards Act protection to state and local employees in 1974, the Supreme Court, in 1976, forbade the action, citing Congress' lack of authority to regulate the conduct of state and local governments under the commerce clause of the Constitution (*National League of Cities v. Usery*). This too was overturned in 1985 (*Garcia v. San Antonio Metropolitan Transit Authority*) because of its impracticability. With this decision, the Court seemed to wash its hands of the subject, leaving the states to the mercy of what Justice O'Connor in dissent called Congress' "underdeveloped capacity for self-restraint."⁷

Tracking the Effects of Federal Mandates

*"First they underestimate the costs and then they underfund the underestimate."*⁸

One basic flaw in the process of legislating mandates, leading to their recent proliferation, is that unrealistic projections of the cost of realizing mandated goals are made. A law ordering coastal states to test beach water regularly illustrates this. Congress was willing to contribute some money and authorized \$3 million in grants to cover the cost. A representative from Florida complained, however, that it would take more than \$2 million a year to test the 8,500-mile Florida shoreline alone. That left less than \$1 million for more than 20 other coastal states.⁹

To quantify the expected costs of prospective mandates, Congress enacted the State and Local Government Cost Estimate Act of 1981. It requires the Congressional Budget Office (CBO) to estimate the cost that state and local governments would have to incur for any bill reported from full committee in the House or Senate that is likely to require at least \$200 million annually. In practice, CBO calculates estimates for *all* legislation to gauge if the \$200 million threshold is surpassed. After the first six years (through 1988) and 3,500 estimates, the CBO found only 382 that involved any costs or savings for state and local governments, and only 89 that exceeded \$200 million per year.¹⁰ This does not imply that most mandates are costless, however; many problems exist in the estimations.

One major problem is that the language of proposed legislation is often left purposely vague, allowing for broad interpretations of how states might implement such legislation. This practice undermines the validity of these estimates. Compounding this problem, the legislation's final draft often differs considerably from the draft that prompted the estimation.

A different problem arises in situations like the 1985 Supreme Court ruling in *Garcia v. San Antonio Metropolitan Transit Authority*, where the breadth of coverage is extensive. A quick and precise estimate of the impact of this ruling was impossible because it affected more than 7 million public employees in 50 states and approximately 3,000 counties, 19,000 municipalities, 17,000 townships, 15,000 school districts and 29,000 local special districts, all of whom became legally entitled to overtime pay.¹¹

Supplementing the CBO's cost estimates, individual states track potential mandates themselves to determine the possible effects. A report by Martha Fabricius for the National Conference of State Legislatures cites examples of how states analyze and track the effects of proposed mandates. For example, Missouri's

Legislature uses a special calendar to draw attention to federal mandates. Each time the state's House votes to act on a federal mandate, whether to allocate funds or alter state legislation to conform with federal standards, it is recorded on the calendar. This system helps put federal lawmakers on notice every time the state is forced to vote on something as a direct result of a federal requirement. In Oklahoma, the Senate publishes a weekly newsletter that keeps legislators up-to-date about federal activities. Most states also send members of their legislatures to Congress to meet regularly with and lobby their state's congressional delegations.

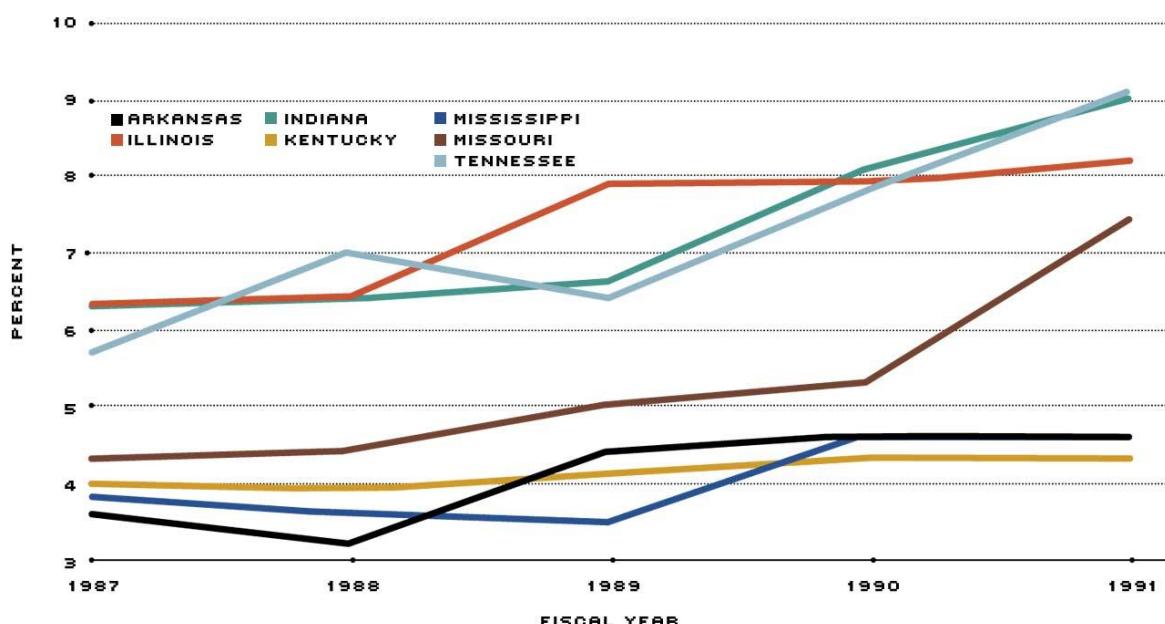
The Effects of Federal Mandates on State Budgets

Not all states will be affected by different provisions of different bills in the same manner. According to the Fabricius report, many provisions involved no additional state expenditure because, usually, the state had already included the proposed legislation in state law. For example, a law requiring handicapped accessibility at polling places led to CBO cost estimates ranging from \$845 per county in Georgia to \$10,000 in the city of Minneapolis. Georgia required only reregistering the handicapped into districts where accessibility was available, while Minneapolis required the construction of wheelchair ramps in all polling places. These alternative approaches to the same problem account for most of the cost differentials among states.

Several projections taken from the Fabricius report serve to demonstrate the varying cost effects further.¹² The Child Welfare and Preventive Services Act of 1991, major provisions of which were included in a tax bill in October 1992, extends Medicaid benefits to a broader class of children. Forty-one states had estimated the total cost of complying with the bill as originally written at \$997 million for fiscal year 1992. This figure represents 4.1 percent of the estimated total Medicaid expenditures by these states in fiscal year 1991. Arkansas reported no impact of this legislation reported costs of only \$106,000. Missouri and Mississippi, on the other hand, each reported costs of at least \$7 million. Larger states, such as New York and Pennsylvania, reported costs of more than \$400 million each (see sidebar for more on Medicaid).

Sidebar 1

Medicaid: A Growing Burden



Without doubt, the most prominent and costly federal mandate is Medicaid, which was instituted in 1966. Medicaid provides health care for those individuals who are not old enough for Medicare and who

do not have the resources to provide health care for themselves. People receiving welfare and others who can prove financial need are usually covered. Expenses are paid by the state and federal governments. In general, the federal government makes the rules about who will be eligible for benefits on what conditions, but the states set the actual benefit levels and administer the funds. The federal government matches the money paid out by the state according to a formula that gives more federal money (per dollar of state money) to poorer states. Benefit levels vary substantially, with poor states generally providing low benefits despite proportionately higher assistance from the federal government.

The chart shows that since the late 1980s, state Medicaid expenditures (exclusive of federal monies) have been rising as a percent of total state expenditures. Recent increases, especially since 1989, have occurred because of legislation that now requires states to broaden their Medicaid coverage, especially to children under the age of 19 who qualify. States not already covering this expanded group—the previous age limit was seven—such as Tennessee, must now follow an annual plan to meet the new federal requirements.

No less than 4 percent of any District state's total expenditure was directed to Medicaid by fiscal 1991. In fact, Indiana and Tennessee were directing at least 9 percent of their budgets toward Medicaid. These percentages represent a large portion of a state's budget over which the legislature has essentially lost control. If the trend continues, states may find themselves truly becoming regional offices for the federal government, as state budgets become increasingly regulated by mandates

The National Voter Registration Act of 1991 (popularly known as the Motor Voter Bill) would have allowed for voter registration when applying for either a driver's license or unemployment insurance benefits. (The act was vetoed by President Bush, but has been reintroduced in Congress this session.) The total estimate for fiscal year 1992 for 41 states was \$58 million. Kentucky projected minimal impact, while Indiana and Missouri projected increases of less than \$1 million. Illinois, however, estimated its costs at slightly more than \$40 million. These inordinately large costs occur because of Illinois' current lack of a statewide, computerized network for voter registration. When combined, the projected costs to the 41 reporting states in fiscal year 1992 for the seven proposed mandates reviewed by Fabricius were about \$1.7 billion, with Eighth District states reporting costs ranging from \$11 million for Arkansas to \$54 million for Mississippi.

These estimates legitimize the concern that no regard is made for the *cumulative* effect of mandates over time. According to Tennessee's Department of Finance and Administration, cumulative new state funding for existing federal mandates since 1987 will amount to \$495 million by the end of fiscal year 1993. The projected \$242 million annual cost to Tennessee by fiscal year 2002 for all mandates enacted between 1987 and 1992 is approximately equivalent to the state levying either a one-half percent increase in its 6 percent sales tax or a 9-cent increase in its 20-cent per gallon gasoline tax.¹³

At first glance, larger states might appear better able to afford the additional expense imposed by mandates because of their larger tax base. This, however, is not necessarily true. If we compare the projected costs in the Fabricius report for fiscal year 1992 with actual fiscal year 1991 general expenditures, we find that the impact for most District states (which are relatively small), as well as some large states like New York, California or Texas, is similar. With few exceptions, states have impacts of significantly less than 1 percent of general expenditure on their budgets. While this may not seem extreme, it is in addition to the monies already being spent by the states on federal mandates. The more fundamental issue, however, is whether mandates should occur at all. Should the federal government force states to allocate their resources in a predetermined way, even if the eventual expense amounts to only pennies on the dollar?

Should There Be Federal Restraint?

It is certainly not true that all mandates are bad. Many do accomplish goals of national importance, and the federal government should be able to legislate without being "held hostage to the states."¹⁴ Besides, no one is against clean air or water, or better access to education for handicapped children. Better methods of tracking the plethora of existing mandates and their cumulative effects need to be devised, however. Toward this end, numerous bills, requiring that no mandate be passed unless it can be funded federally, have been introduced in both the House and Senate.¹⁵ Ultimately, though, pressure from the states and public debate will be required to make the federal government more sensitive to the burdens it imposes by a ruling, a vote or a signature.

Thomas A. Pollmann provided research assistance.

Endnotes

1. Koch, p. 44. [back to text]
2. District state fiscal years begin on July 1 of the previous calendar year. For example, fiscal year 1985 began on July 1, 1984. [back to text]
3. Koch, p. 42. [back to text]
4. David R. Beam in Fix and Kenyon, p. 23. [back to text]
5. Rivlin, p. 87. [back to text]
6. Fix and Kenyon, p. 2. [back to text]
7. Derthick, p. 51. [back to text]
8. Koch, p. 47. [back to text]
9. Rapp, p. 53. [back to text]
10. Theresa A. Gullo in Fix and Kenyon, pp. 43. [back to text]
11. Gullo in Fix and Kenyon, pp. 46-7. [back to text]
12. Only 43 states had responded to the report when written, some with incomplete answers. [back to text]
13. Tennessee, 1992, pp. 3-4. [back to text]
14. Michael Fix in Fix and Kenyon, p. 35. [back to text]
15. Current issues of the *Hall of the States Mandate Monitor* list the most recent legislation. [back to text]

References

Derthick, Martha. "Federal Government Mandates: Why the States Are Complaining," *The Brookings Review* (Fall 1992).

Fabricius, Martha A. *Fiscal Impact of Proposed Mandates from the 102nd Congress*, State-Federal Issue Brief, vol. 4, Washington, D.C.: National Conference of State Legislatures (November 1991).

Fix, Michael, and Daphne A. Kenyon, eds. *Coping with Mandates: What Are the Alternatives?* Washington, D.C.: The Urban Institute Press (1990).

Koch, Edward I. "The Mandate Millstone," *The Public Interest* (Fall 1980).

National Conference of State Legislatures. *Hall of the States Mandate Monitor* (1992, various issues).

Rapp, David. "Just What Your State Wanted: Great New Gifts From Congress," *Governing* (January 1991).

Rivlin, Alice M. *Reviving the American Dream*. Washington, D.C.: The Brookings Institute (1992).

Tennessee Department of Finance and Administration. "Federal Mandate Costs and Federal Aid Trends" (February 1993).

_____. "The Impact of Federal Mandates" (April 1992).

U.S. Bureau of the Census. *State Government Finances*, Series GF-(1984-91)-3. Washington, D.C.: U.S. Government Printing Office.



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Some Upbeat Trends in District Employment

Kevin L. Kliesen

Though it might have seemed otherwise to some, the Eighth Federal Reserve District escaped the brunt of the recent recession. For instance, the trend rate of growth in District payroll employment, while declining at a 1.3 percent annual rate during the recession, did so at slightly more than half the annual U.S. rate of 2.2 percent.¹ (The recession began in July 1990 and ended in March 1991, according to the National Bureau of Economic Research.)

This article examines these trends in employment more closely for both the District and the United States. Specifically, what are some of the underlying employment trends that allowed our District to outperform the nation?

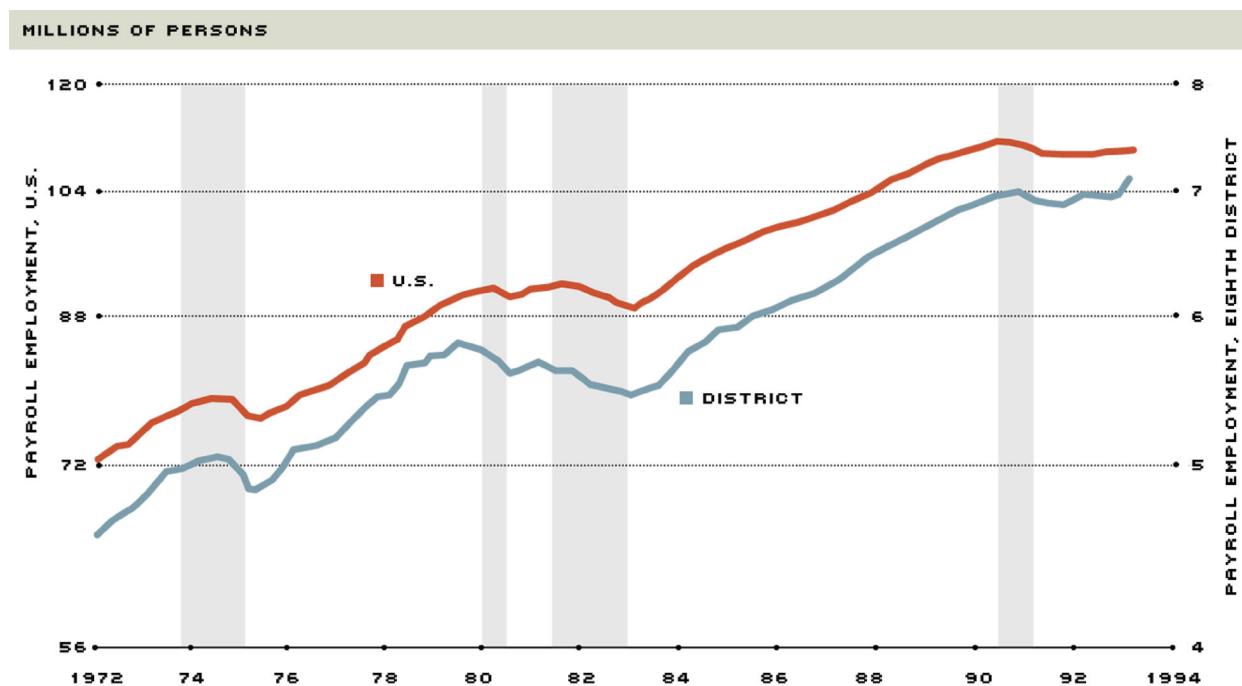
Moreover, how are individual District states and metropolitan areas faring?²

Background

Much of the recent concern about employment among policymakers stems from the lack of job growth that normally accompanies an economic expansion. Unlike the four quarters immediately following previous post-World War II recessions, during which an average of 2.2 million jobs were created, employment growth during the recent recovery has been tepid (see chart). The lack of employment growth has occurred even though real gross domestic product (GDP) has grown at a 2.3 percent annual rate since the first quarter of 1991 and at a 4.1 percent annual rate for the second half of 1992.³

Chart 1

U.S. and Eighth District Payroll Employment



Ratio scale, seasonally adjusted 3-month moving average.

Vertical shaded areas represent periods of business recession.

Since the official end of the recession, U.S. nonagricultural payroll employment has grown at an annual rate of 0.1 percent; in contrast, District payroll employment has grown at an annual rate of 1.2 percent.

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One useful way to view employment trends is to divide nonagricultural payroll employment into employment in goods-producing industries, such as auto manufacturers and apparel firms, and service-producing industries, such as health care and transportation firms. Typically, employment in goods-producing industries not only tends to be more cyclical—that is, it declines more in recessions and rises more in expansions—but it also rises much earlier and faster after the recession than does service-producing employment. Another important trend to note is that goods-producing employment, the bulk of which consists of manufacturing jobs, has grown very little over the past 25 years. In fact, manufacturing employment as a percent of total employment has steadily declined in the postwar period. Service-sector employment, on the other hand, has risen inexorably over time, currently accounting for about 79 percent of total nonagricultural payroll employment. Although some attribute this development to an underlying structural weakness in the U.S. economy, the growth in service-sector employment primarily reflects productivity gains in the manufacturing sector that have allowed the same amount of output to be produced with fewer workers.

The Recent Experience

How do these historical trends square with the pattern of job growth during and after the recent recession? District service-sector employment did not decline during the recession—in fact, it rose at a 0.2 percent annual

rate. Moreover, it continues to rise, increasing at a 1.6 percent annual rate since March 1991. District goods-producing employment, on the other hand, after declining at a 5.6 percent annual rate during the recession, has rebounded slightly, rising at a 0.3 percent annual rate. A similar story emerges for the United States. During the recession, goods-producing employment declined at a 6 percent annual rate while service-producing employment fell at a much less rapid 1.1 percent annual rate. Since March 1991, the growth rate of goods-producing employment has continued to decline, falling at a 1.8 percent annual rate; the growth rate of service-producing employment, however, has risen at a 0.6 percent annual rate.

Clearly the combination of the continued weakness in goods-producing employment and lethargic job growth in service-producing industries has translated into weak overall employment growth for both the District and the United States. Many economists attribute this anemic growth to the restructuring that is affecting many sectors of the economy—for example, the downsizing in the defense industry and the attempt by manufacturers to boost productivity. Restructuring has also occurred in certain parts of the service sector; retailing and financial services come readily to mind.

Some of these factors have naturally affected employment trends in the Eighth District. By the same token, certain areas and industries in the District have prospered despite these unfavorable trends. To facilitate this analysis, let us divide the District into four zones.

Arkansas

Of the four areas we examine, the state of Arkansas was the only one to record increases in payroll employment during the recent recession (up at a 0.9 percent annual rate). Since the end of the recession, payroll employment in Arkansas has grown at a 2.8 percent annual rate, exceeding Kentucky's 2.3 percent rate of increase (the next highest). According to the University of Arkansas at Little Rock, the Arkansas economy has been bolstered in recent years by strong growth in exports, which have risen at double-digit annual rates since 1990. Elsewhere, the presence of firms such as Wal-Mart and Tyson Foods has helped northwest Arkansas prosper in recent years, while the northeastern part of the state has been able to attract several steel processing firms.

Kentucky/Southern Indiana

A second source of strength in the District recently has been the performance of the Kentucky economy, where payroll employment has risen at a 2.3 percent annual rate since March 1991. Louisville's economy, on the other hand, although well diversified, has weakened recently. For example, Louisville's payroll employment rose 2.7 percent from March 1991 to March 1992; it has subsequently risen at a 0.1 percent rate (through February 1993), however. Other areas of Kentucky and Southern Indiana have prospered. For instance, Bowling Green has recently attracted two major paper products manufacturers. Similarly, economic growth in the Evansville, Indiana, area has been relatively strong, reflecting gains in residential and nonresidential construction and the recent refurbishing of the Whirlpool plant there, which is expected to increase its production and employment levels this year.

Missouri

Of our four areas, Missouri employment growth was certainly the weakest both during the recession (decreasing at a 2.6 percent rate) and since the recession ended (rising at a 0.6 percent rate). Much of this weakness can be attributed to the St. Louis economy, which has been adversely affected by the downsizing in the military. For instance, as home to the nation's largest defense contractor, McDonnell Douglas, manufacturing employment in the St. Louis metropolitan statistical area (MSA) has declined by about 20,000 since the end of 1990. Many of these workers, however, have either found employment in other industries or

relocated to other areas. Nevertheless, the unemployment rate in the St. Louis MSA currently stands at about 6.5 percent—down moderately from the 7.2 peak reached in June 1992.

Tennessee/Northern Mississippi

Compared with the U.S. economy, the Memphis economy has done rather well recently. Real retail sales in December 1992 were up 31 percent from the previous year, and the area's unemployment rate is currently 5.5 percent. Total payroll employment has risen at a 7.9 percent rate since September 1992; however, it has risen at only a 1.0 percent rate since March 1991. Because of the Memphis economy's important service sector component, it can sometimes weather the business cycle better than, say, a manufacturing-based economy. One should be careful, though, not to always make this assumption. For instance, Mississippi is the most manufacturing-intensive state in the Southeast, but its unemployment rate is currently 6 percent, down from 8.1 percent in January 1992. Moreover, from 1989 to 1991, per capita disposable income in Mississippi grew at 6.1 percent annual rate, one of the highest rates of increase in the nation and far out distancing the 4.3 percent rate of growth for the United States.

Although a measurable degree of uncertainty remains in some areas, the resumption of U.S. economic growth above its long-run potential is reassuring. Thus as the U.S. economy continues to improve and as its short-term structural adjustments diminish in importance, there will likely be a sustained rise in overall employment in most regions of the country.

James P. Kelley provided research assistance.

Endnotes

1. Unless noted otherwise, all growth rates are expressed on a trend basis, defined as a three-month moving average. [\[back to text\]](#)
2. The Eighth Federal Reserve District comprises all of Arkansas and parts of six other states (see back cover). For purposes of this discussion, however, the Eighth District refers only to the whole states of Arkansas, Kentucky, Missouri and Tennessee—unless noted otherwise. [\[back to text\]](#)
3. GDP data are not calculated on a trend basis. [\[back to text\]](#)

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The Pitfalls of Industrial Policy

Michelle Clark Neely

"The problem is that in economics two wrongs do not make a right."

—Paul Krugman, Economist, Massachusetts Institute of Technology

Krugman's observation about economics would ring true in any number of economic policy debates. But it is especially appropriate in the current debate on whether the United States needs an industrial policy. Faced with increasing global competition and government activism abroad, many U.S. business interests have been calling on the federal government to take a more active role in the U.S. economy. Right now, Washington seems inclined to listen.

While there is no formal definition of industrial policy, it usually refers to a set of policies designed to promote promising industries while propping up or easing the fall of declining industries. Defined that way, industrial policy is often described as the government picking winners and losers. Implicit in the argument for a U.S. industrial policy is the belief that market forces alone cannot or will not produce economic growth and rising living standards.

Proponents of industrial policy offer two propositions to support their cause. The first is that the United States is deindustrializing and becoming less competitive in world markets. They argue that the country has lost much of its manufacturing base and is no longer at the cutting edge in newer, high-technology industries. The government, proponents say, needs to step in and promote the development of new technology with commercial possibilities and retrain workers displaced in declining industries.

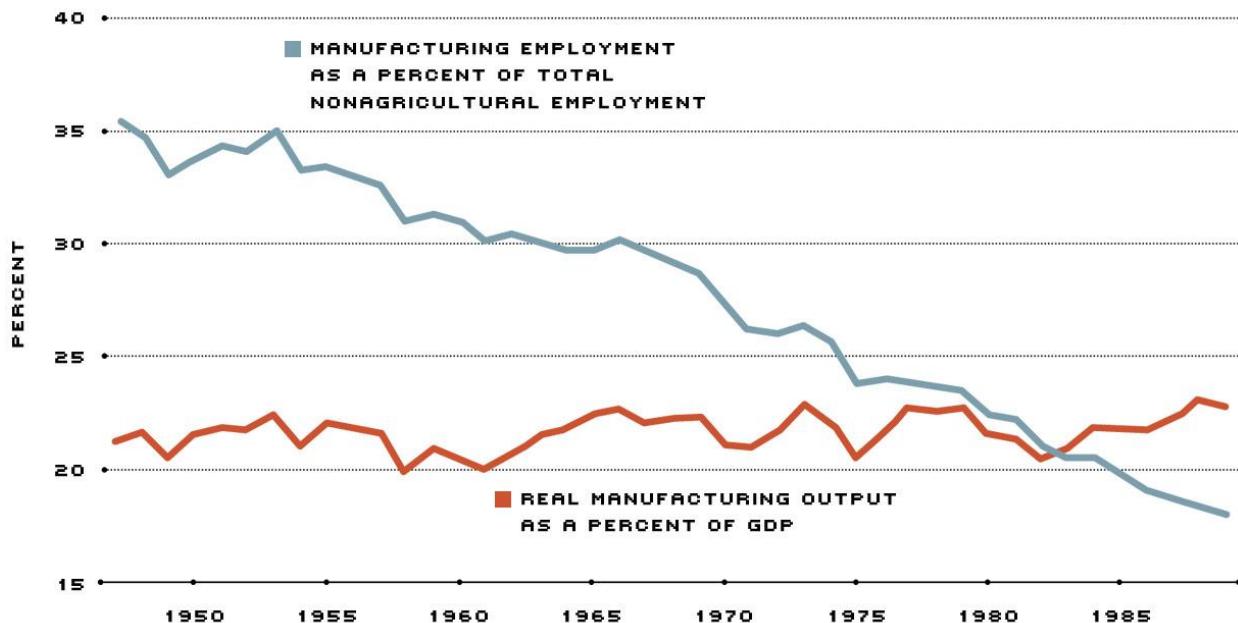
The second proposition is that other countries—especially Japan—have successfully enacted policies to promote new industries and protect older, less profitable, but essential industries. Thus, the United States is losing not only through its inaction but also as a result of successful market interventions by competing nations. The pervasive belief is that the United States must emulate these countries to maintain its economic superpower status.

Flawed Foundations

According to economist Charles Schultze, both propositions are flawed. First, he says, the United States is not deindustrializing. Those who make this argument point to the relative decline in U.S. manufacturing workers since World War II and the absolute decline in manufacturing workers during the 1980s; what they ignore is that manufacturing output as a percent of gross domestic product has remained relatively constant, as both have grown at roughly the same rates (see chart).

Chart 1

Manufacturing Productivity: Making More With Less



The portion of U.S. workers in manufacturing has steadily declined in the postwar era. Today, about one in five workers is employed in the manufacturing sector compared with one in three at the end of WWII. Despite this decline, manufacturing output as a share of total output has remained fairly constant, around 20 to 23 percent. What this demonstrates is a significant improvement in manufacturing productivity.

The bottom line is that the nation is producing more goods with *fewer* workers. During the 1980s, U.S. manufacturing productivity rose 2.9 percent per year. This is good news from an economic standpoint because it means resources are being freed up for other productive activities. While the adjustments of workers in old industries to new positions can be painful initially, increasing productivity benefits the economy as a whole, setting the stage for increased growth and efficiency.

Moreover, the notion that industrial policy is primarily responsible for economic success in Japan is disputable. While Japan's Ministry of International Trade and Industry (MITI) does direct investment to certain sectors and industries, these investments do not always pay off. Steel and oil—two of the many industries that have received financial support from MITI—are largely viewed as a drag on the Japanese economy. Some of MITI's past initiatives, had they been successful, would have proved very foolish for Japan: MITI actively discouraged Honda from getting into the automobile business and Sony from getting into the consumer electronics business.

If industrial policy was not responsible for Japan's economic strength in the postwar period, what was? Much of Japan's early postwar growth was simply recovery from near total destruction. After that, the evidence points to Japan's macroeconomic policies and business practices. In the 1960s and 1970s, Japanese economic policies encouraged private savings, which were channeled into investment equivalent to 30 to 35 percent of Japan's national output; the U.S. figure was about half that. At the same time, the Japanese developed cooperative relationships between labor and management that encouraged high-quality work and rapid productivity growth. Finally, they took existing technologies, in consumer electronics, for example, and produced higher-quality goods at lower costs than their foreign competitors.

Practical Problems

Even if these propositions were true and a U.S. industrial policy could be rationalized, the impediments to implementing a successful policy would be formidable. First, what criteria should be used to decide which industries are worthy of support? One commonly suggested criterion today—one that can be justified on economic grounds—is to subsidize high-tech industries that generate positive spillovers in other parts of the economy. A technical innovation by one firm, for example, made possible by government subsidies, could be incorporated by other firms, producing a boost for the economy that exceeds the cost of the subsidy.

The transition from theory to the real world is a good deal more complicated, however. To work, the benefits and the costs of any policy must be identified and measured correctly. Each subsidy given to an industry or firm generates an opportunity cost: the cost of foregone alternatives. In other words, to correctly evaluate a policy, you need to know not only what you're getting, but also what you're giving up. Based on industrial policy experiments in several countries, most economists have little confidence in the government's ability to measure these benefits and costs properly.

Another criterion for picking winners would be based on comparative advantage. In simple terms, a country has a comparative advantage in producing goods that require a larger share of its abundant (and, hence, least costly) resource. While other factors are important too, this basic proposition indicates that a nation should produce and export goods that are relatively inexpensive (in terms of resource use) and import goods that are relatively expensive to produce domestically. The United States has relatively more technology, capital and high-skill labor than low-skill labor, and therefore, all else equal, should concentrate in producing high-tech, capital-intensive goods that require an educated work force.

This very general proposition does not help determine, however, which industries in which countries will succeed. We know that advanced countries import and export a wide range of goods within the same industry, like automobiles. These goods share similar broad characteristics, but have other special qualities that set them apart. Because industrial specialization is determined by factors other than resource endowments, however, economists are wary of any attempt to target very specific industry sectors for assistance. The knowledge necessary to determine *in advance* what will be successful simply does not exist. Individual entrepreneurship and initiative, as shown by Henry Ford in the development of the automobile, for example, are key components in the specialization process and cannot be anticipated by government planners. The government can best help this specialization process by Manufacturing Productivity: Making More With Less creating a sound economic environment, one that is free of distortionary fiscal, monetary and regulatory policies.

The criteria offered for choosing which declining industries to support are even weaker. Some suggest that the federal government assist older and troubled industries on the grounds that other governments are heavily subsidizing them in their countries; the steel industry is a good example of this. That would mean, however, supporting industries that have low or negative investment returns and excess capacity. Instead of encouraging the private sector to devote resources to unprofitable industries that other countries are subsidizing, it makes more sense to take advantage of that foreign subsidy by buying the cheaper foreign goods.

The American political system presents a final challenge to successfully implementing any industrial policy. Given the power of interest groups in our political system, it is likely that government support of an industry would be based more on political considerations than economic merits. It's also likely that every industry would demand (and get) a share of the pie, thus diluting the effects of any targeted policy. And there is the further problem of withdrawing support when it is no longer needed or when it is clear the policy has failed. To paraphrase economist Milton Friedman, there is nothing more permanent than a temporary government program.

Increasing investment in high-tech industries and retraining workers in declining industries—two of the major goals of today's industrial policy advocates—are worthy goals. When a government directs resources toward some industries, however, it effectively takes them away from others. Economic theory and practical experience teach us that individual entrepreneurs and firms are better equipped to make these choices. The portion of U.S. workers in manufacturing has steadily declined in the postwar era. Today, about one in five workers is employed in the manufacturing sector compared with one in three at the end of WWII. Despite this decline, manufacturing output as a share of total output has remained fairly constant, around 20 to 23 percent. What this demonstrates is a significant improvement in manufacturing productivity.

Thomas A. Pollmann provided research assistance.

References

Richard N. Cooper. "Industrial Policy and Trade Distortion: A Policy Perspective," in A. Michael Spence and Heather A. Hazard, eds., *International Competitiveness* (1988).

Paul R. Krugman. "Targeted Industrial Policies: Theory and Evidence," in *Industrial Change and Public Policy*, Federal Reserve Bank of Kansas City (August 1983).

Assar Lindbeck. "Industrial Policy as an Issue in the Economic Environment," *The World Economy* (December 1981).

Charles L. Schultze. "Industrial Policy: A Dissent," *The Brookings Review* (Fall 1983).

Laura D'Andrea Tyson. *Who's Bashing Whom? Trade Conflict in High-Technology Industries*, Institute for International Economics (November 1992).



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Pieces of Eight: News Bulletins from the Eighth Federal Reserve District

Annual Report Describes Role of Federal Reserve Banks

The role of the Federal Reserve chairman in formulating monetary policy is often discussed and often written about. The role of the 12 regional Reserve Banks, on the other hand, is relatively obscure.

The St. Louis Fed's 1992 annual report, due out in late April, attempts to fill this informational void, answering the question, What does a regional Reserve Bank do? Focusing on the activities of the Federal Reserve Bank of St. Louis, the report describes how the three main responsibilities of a regional Reserve Bank—contributing to monetary policy formulation, supervising financial institutions and providing payments services—act in concert to ensure the nation's financial stability.

To reserve a copy, call 314-444-8809.

Fed Offers Educational Programs in Economics

Do you know who sets monetary policy in the United States? If you answered the Federal Reserve, you are among only 33 percent of Americans who could answer that question correctly, according to a recent Gallup survey on American economic literacy.

To help boost that percentage, the Federal Reserve Bank of St. Louis offers free or low-cost materials and economic education programs to students, teachers, senior citizens, community groups and the general public.

Elementary and high school teachers enjoy Bank-sponsored, day-long workshops on basic and advanced economic topics that can then be taught in the classroom. Teachers and students benefit from free Federal Reserve materials, such as comic books, posters and pamphlets, and access to a video lending library. Teachers, students and the public keep current with free research publications. And just about anyone high school age and above can benefit from presentations from our speakers bureau and tours of the Bank through our tour program. For more information about these programs, call Debbie Bangert at 314-444-8421.

Another Banner Year for District Banks

Banks in the Eighth Federal Reserve District, like their national peers, posted strong earnings and improved asset quality in 1992. As usual, District banks also outperformed their national peers in key measures of industry health. In 1992, they posted a return on average assets—the major measure of bank profitability—of 1.14 percent, far above the industry benchmark of 1 percent and the national peer average of 1.04 percent.

Two factors are primarily responsible for such high profitability ratios across the nation. The first is the large spread between the rates earned on loans and other assets and the rates paid on deposits. The other factor is the sharp decline in nonperforming assets, especially loans. Because the quality of their assets improved, both

District and U.S. peer banks were able to reduce their loan loss provisions—the amount of funds they set aside to cover doubtful loans.

Energy Consumption per Dollar of Real Output—1989*

Rank Among 50 States	District State	Consumption
7	Mississippi	31.3
9	Indiana	29.0
13	Kentucky	27.3
14	Arkansas	27.2
20	Tennessee	23.9
30	Missouri	19.1
39	Illinois	17.1

*thousands of Btu per 1982 dollar of gross state product

District Data

Selected economic indicators of banking,
agricultural and business conditions in
the Eighth Federal Reserve District

Commercial Bank Performance Ratios

U.S., District and State

	All U.S.	U.S. <\$15B ¹	District	AR	IL	IN	KY	MS	MO	TN
Return on Average Assets (Annualized)										
4th quarter 1992	0.95%	1.04%	1.14%	1.34%	1.18%	1.05%	1.03%	1.18%	1.09%	1.15%
3rd quarter 1992	0.94	1.06	1.17	1.39	1.21	1.06	1.07	1.25	1.11	1.16
4th quarter 1991	0.53	0.65	0.93	1.16	0.88	0.93	0.99	1.06	0.78	0.87
Return on Average Equity (Annualized)										
4th quarter 1992	13.19%	13.22%	13.93%	15.44%	13.13%	11.81%	12.69%	12.97%	14.10%	15.87%
3rd quarter 1992	13.37	13.58	14.39	16.09	13.58	12.01	13.29	13.86	14.42	16.11
4th quarter 1991	7.89	8.77	11.69	13.64	10.12	10.64	12.33	12.23	10.62	12.31
Net Interest Margin (Annualized)										
4th quarter 1992	4.52%	4.87%	4.48%	4.61%	4.61%	4.57%	4.28%	5.08%	4.27%	4.62%
3rd quarter 1992	4.47	4.82	4.47	4.59	4.60	4.62	4.22	5.06	4.27	4.67
4th quarter 1991	4.18	4.54	4.19	4.39	4.09	4.26	4.05	4.76	3.92	4.60
Nonperforming Loans² ÷ Total Loans										
4th quarter 1992	3.09%	2.27%	1.31%	1.16%	1.49%	0.87%	1.35%	1.17%	1.43%	1.25%
3rd quarter 1992	3.43	2.60	1.43	1.27	1.74	1.06	1.39	1.34	1.53	1.45
4th quarter 1991	3.73	2.89	1.68	1.66	1.99	1.32	1.55	1.43	1.82	1.60
Net Loan Losses ÷ Average Total Loans (Annualized)										
4th quarter 1992	1.26%	1.08%	0.64%	0.37%	0.78%	0.50%	0.83%	0.60%	0.53%	0.86%
3rd quarter 1992	1.22	1.02	0.56	0.34	0.75	0.52	0.67	0.50	0.45	0.81
4th quarter 1991	1.58	1.34	0.74	0.44	0.77	0.59	0.73	0.64	0.73	1.28
Loan Loss Reserve ÷ Total Loans										
4th quarter 1992	2.65%	2.41%	1.81%	1.63%	1.79%	1.45%	1.68%	1.75%	1.96%	2.07%
3rd quarter 1992	2.69	2.44	1.80	1.62	1.81	1.41	1.73	1.69	1.94	2.09
4th quarter 1991	2.65	2.36	1.71	1.68	1.77	1.30	1.53	1.64	1.85	1.92

NOTE: Data include only that portion of the state within Eighth District boundaries.

¹ U.S. banks with average assets of less than \$15 billion are shown separately to make comparisons with District banks more meaningful, as there are no District banks with average assets greater than \$15 billion.

² Includes loans 90 days or more past due and nonaccrual loans

SOURCE: FFIEC Reports of Condition and Income for Insured Commercial Banks

Commercial Bank Performance Ratios

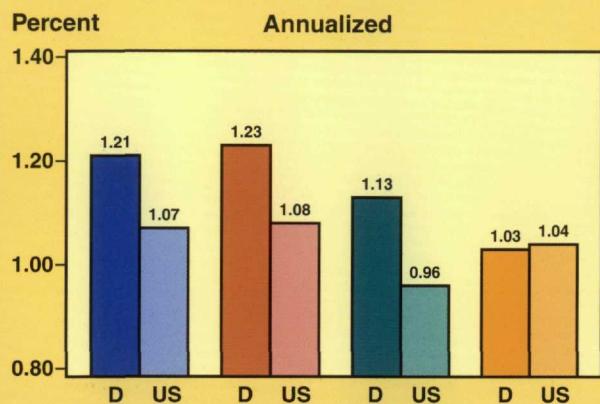
by Asset Size

4th Quarter 1992

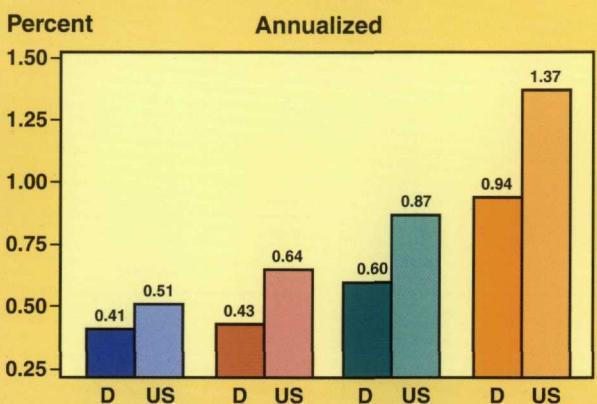
Earnings

Asset Quality

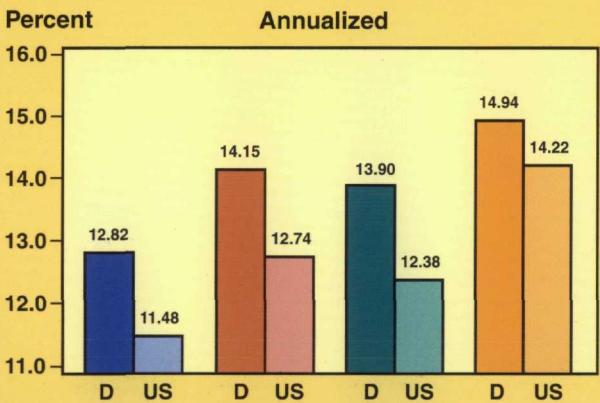
Return on Average Assets



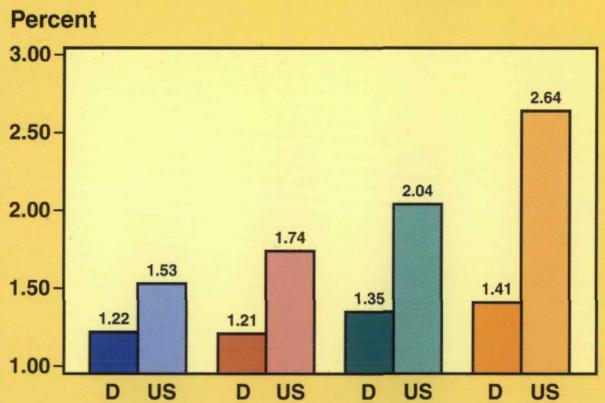
Net Loan Loss Ratio¹



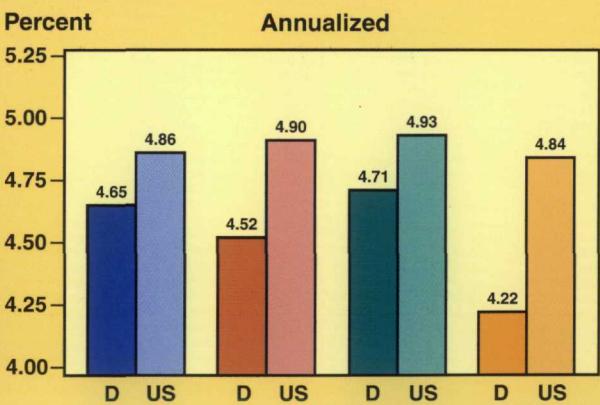
Return on Average Equity



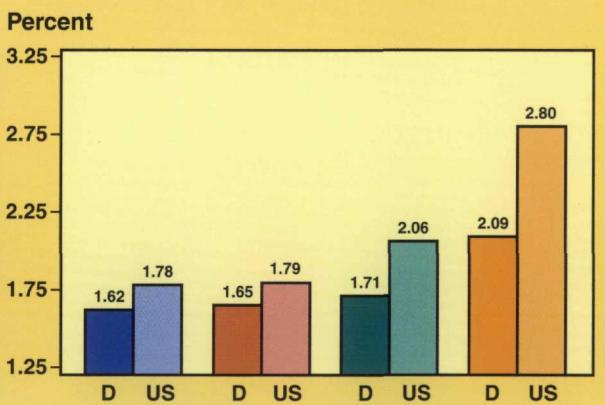
Nonperforming Loan Ratio²



Net Interest Margin³



Loan Loss Reserve Ratio



D = District

US = United States

< \$100 Million

\$100 Million – \$300 Million

\$300 Million – \$1 Billion

\$1 Billion – \$15 Billion

NOTE: Asset quality ratios are calculated as a percent of total loans.

¹ Loan losses are adjusted for recoveries.

² Includes loans 90 days or more past due and nonaccrual loans

³ Interest income less interest expense as a percent of average earning assets

SOURCE: FFIEC Reports of Condition and Income for Insured Commercial Banks

Agricultural Bank Performance Ratios

	U.S.	AR	IL	IN	KY	MS	MO	TN
Return on average assets (annualized)								
4th quarter 1992	1.25%	1.38%	1.10%	1.17%	1.28%	1.35%	1.30%	1.13%
3rd quarter 1992	1.32	1.50	1.17	1.21	1.33	1.51	1.34	1.22
4th quarter 1991	1.04	1.16	1.04	0.95	1.11	1.30	1.14	0.79
Return on average equity (annualized)								
4th quarter 1992	13.03%	13.57%	11.27%	11.96%	13.62%	13.98%	13.86%	10.57%
3rd quarter 1992	13.82	14.81	12.06	12.38	14.14	16.07	14.43	13.26
4th quarter 1991	11.16	11.67	10.83	9.80	11.77	14.01	12.59	8.50
Net interest margin (annualized)								
4th quarter 1992	4.64%	4.62%	4.24%	4.64%	4.55%	5.18%	4.66%	4.74%
3rd quarter 1992	4.64	4.63	4.25	4.66	4.54	5.15	4.63	4.66
4th quarter 1991	4.39	4.34	4.07	4.43	4.32	4.86	4.36	4.39
Ag loan losses + average ag loans (annualized)								
4th quarter 1992	0.29%	0.48%	0.16%	0.13%	0.31%	1.60%	0.50%	0.65%
3rd quarter 1992	0.28	0.43	0.26	0.12	0.30	1.08	0.54	0.57
4th quarter 1991	0.31	0.64	0.35	1.47	0.24	0.34	0.35	0.69
Ag nonperforming loans¹ + total ag loans								
4th quarter 1992	1.62%	1.09%	2.44%	2.49%	1.95%	5.37%	1.71%	1.48%
3rd quarter 1992	1.87	1.10	3.34	2.69	2.00	3.46	2.07	0.72
4th quarter 1991	1.67	0.92	2.60	2.86	2.11	3.21	2.02	1.77

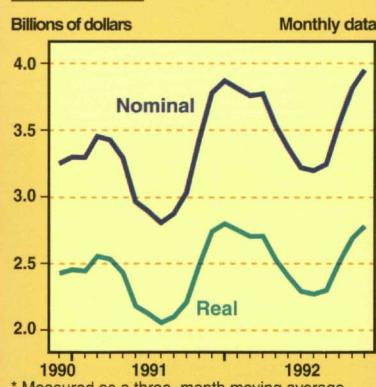
NOTE: Agricultural banks are defined as those banks with a greater than average share of agricultural loans to total loans.

Data include only that portion of the state within Eighth District boundaries.

¹ Includes loans 90 days or more past due and nonaccrual loans

SOURCE: FFIEC Reports of Condition and Income for Insured Commercial Banks

U.S. Agricultural Exports*



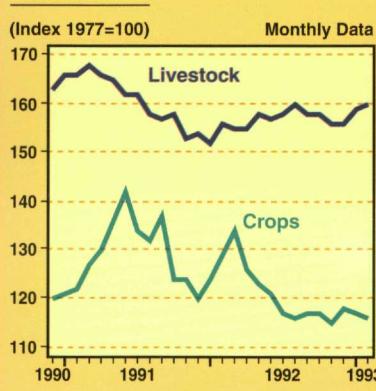
U.S. Agricultural Exports by Commodity

Dollar amounts in billions

Commodity	Oct	Nov	Dec	Year-to-date	Change from year ago
Livestock & products	.75	.67	.62	7.61	86.8%
Corn	.35	.50	.43	4.70	-4.3
Cotton	.08	.13	.17	2.01	-19.3
Rice	.07	.06	.08	.73	-3.4
Soybeans	.57	.49	.44	4.38	10.7
Tobacco	.14	.17	.16	1.65	15.6
Wheat	.47	.39	.39	4.45	34.7
TOTAL¹	4.17	3.89	3.79	42.93	9.5

¹ Includes commodities not listed here

U.S. Crop and Livestock Prices



Indexes of Food and Agricultural Prices

	Level			Growth ¹	
	IV/91	III/92	IV/92	III/92-IV/92	IV/91-IV/92
Prices received by U.S. farmers	139	140	137	-8.30%	-1.44%
Prices received by District farmers ²					
Arkansas	139	138	138	0.00	-0.72
Illinois ⁴	102	99	94	-18.72	-7.84
Indiana	115	113	110	-10.20	-4.35
Missouri	132	132	131	-3.00	-0.76
Tennessee	136	141	137	-10.87	-0.74
Prices paid by U.S. farmers					
Production items	173	175	175	0.00	1.16
Other items ³	189	192	192	0.00	1.59
Consumer food prices	136	138	138	0.00	1.47
Consumer nonfood prices	137	141	143	5.80	4.38

NOTE: Data not seasonally adjusted except for consumer food prices and nonfood prices.

¹ Compounded annual rates of change

² Index of prices received for all farm products (1977=100). Indexes for Kentucky and Mississippi are unavailable.

³ Other items include commodities, services, interest, taxes and wages.

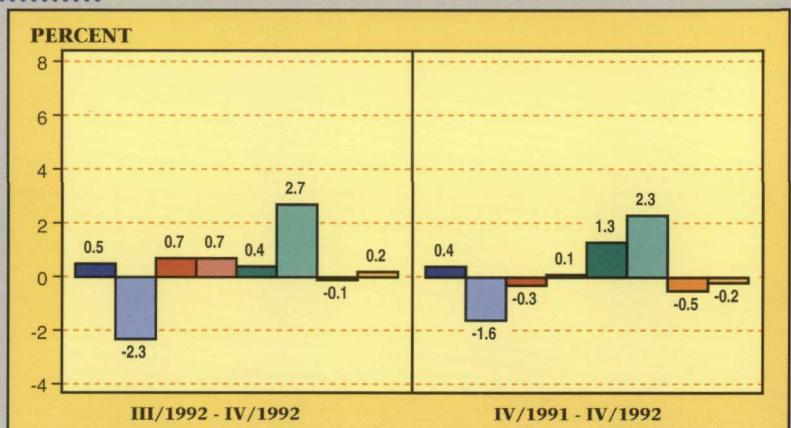
⁴ (1985-89=100) for 1991; (1986-90=100) for 1992

Selected U.S. and State Business Indicators

Compounded Annual Rates of Change in Nonagricultural Employment

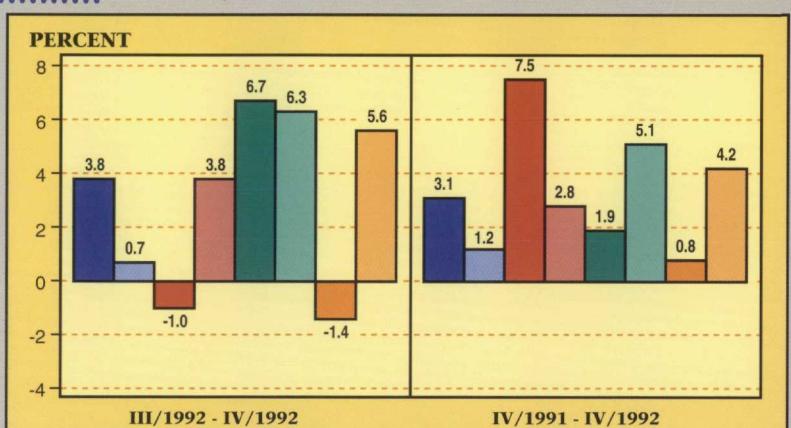
United States

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	127,341	127,343	125,671
Total nonagricultural employment (in thousands)	108,656	108,525	108,193
Unemployment rate	7.3%	7.6%	7.0%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$3585.2	\$3587.0	\$3538.0



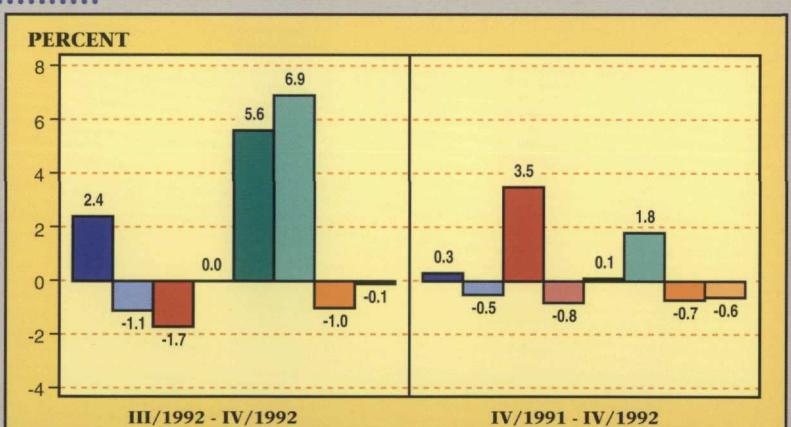
Arkansas

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	1128.0	1156.8	1120.1
Total nonagricultural employment (in thousands)	975.2	966.1	945.9
Unemployment rate	7.4%	7.2%	7.5%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$26.4	\$26.4	\$25.1



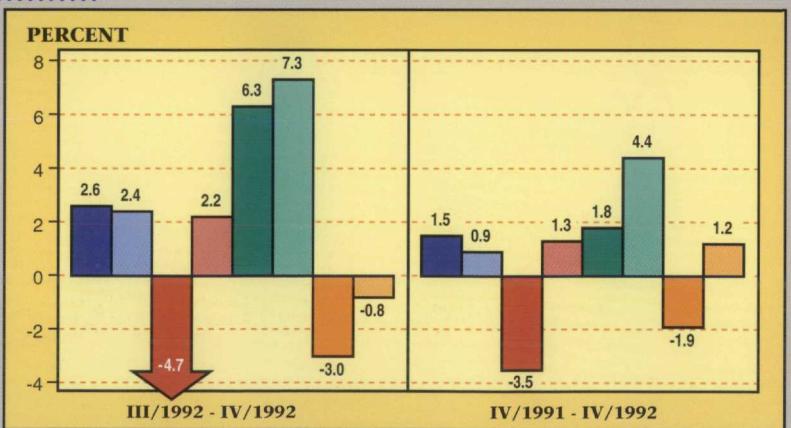
Illinois

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	6138.9	6092.1	5997.0
Total nonagricultural employment (in thousands)	5221.0	5190.6	5207.6
Unemployment rate	6.3%	7.3%	8.4%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$177.3	\$177.7	\$176.0



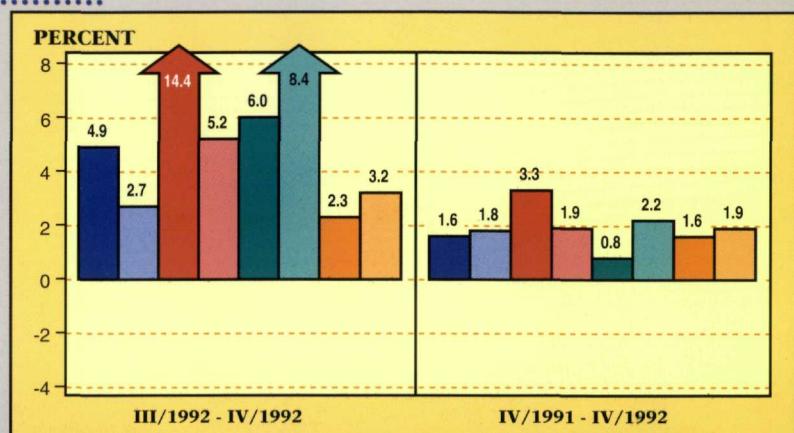
Indiana

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	2827.1	2895.9	2771.7
Total nonagricultural employment (in thousands)	2549.9	2533.4	2512.1
Unemployment rate	6.2%	6.6%	6.0%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$72.1	\$72.1	\$70.8



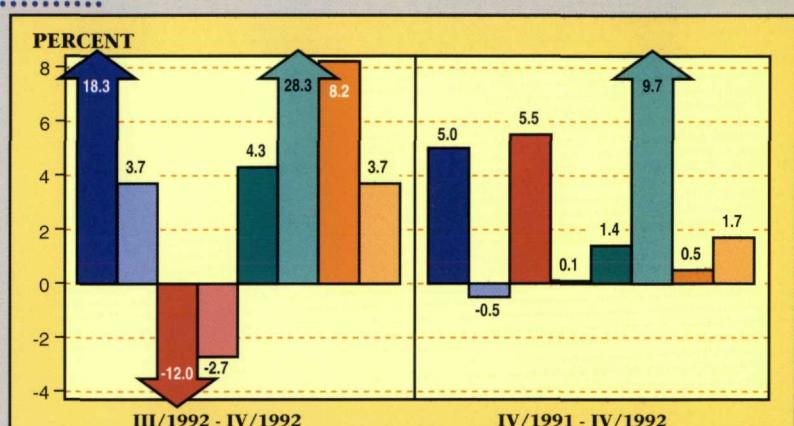
Kentucky

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	1848.4	1814.0	1757.8
Total nonagricultural employment (in thousands)	1499.4	1481.4	1476.2
Unemployment rate	6.8%	7.1%	8.0%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$44.0	\$44.0	\$42.9



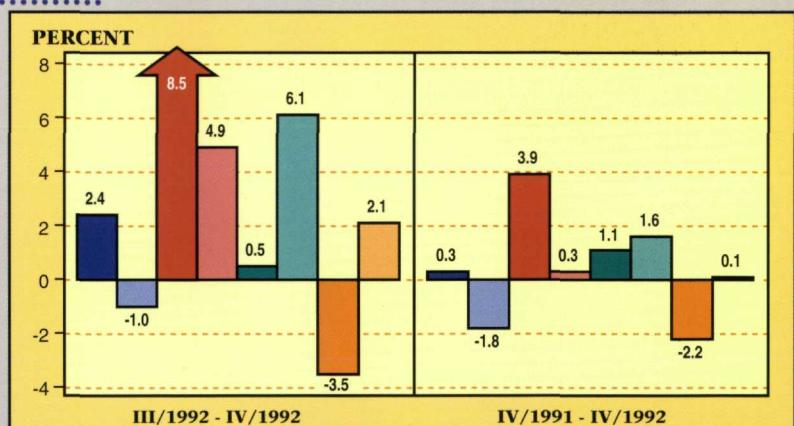
Mississippi

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	1184.6	1197.3	1160.3
Total nonagricultural employment (in thousands)	988.5	947.8	941.2
Unemployment rate	7.1%	8.7%	7.9%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$26.2	\$26.1	\$25.3



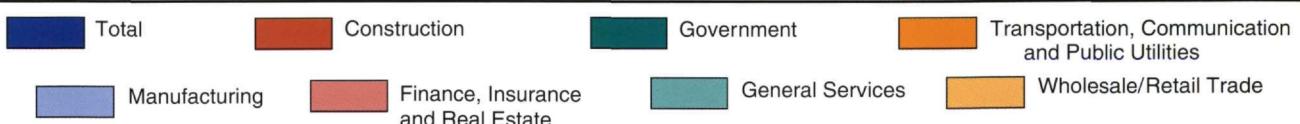
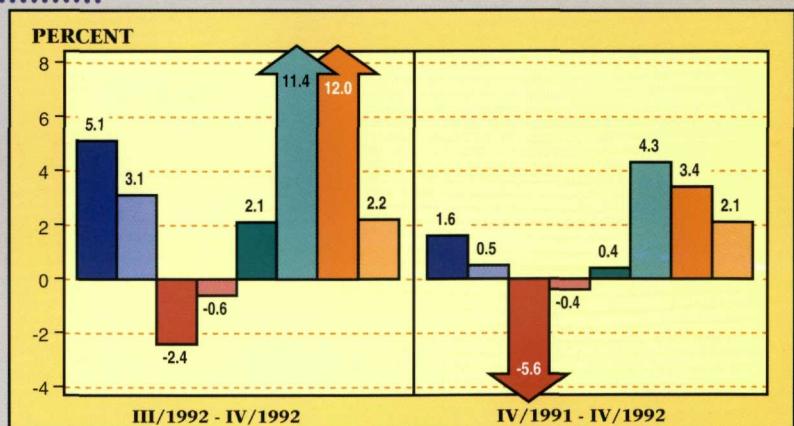
Missouri

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	2677.9	2691.2	2708.0
Total nonagricultural employment (in thousands)	2297.6	2284.1	2291.8
Unemployment rate	5.4%	6.3%	6.3%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$68.9	\$69.1	\$67.9



Tennessee

	IV/1992	III/1992	IV/1991
Labor force (in thousands)	2467.5	2435.9	2417.5
Total nonagricultural employment (in thousands)	2211.1	2183.8	2176.8
Unemployment rate	5.7%	6.4%	6.8%
	III/1992	II/1992	III/1991
Real personal income*			
(in billions)	\$62.4	\$61.8	\$60.0



NOTE: All data are seasonally adjusted.

* Annual rate. Data deflated by CPI, 1982-84=100.