

Regional variations in employment and unemployment during 1970–82

Even when the jobless rate was relatively low, 5.8 percent in 1979, wide differences in rates for local areas existed, ranging from a high of 40 percent to a low of less than 1 percent

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National economic events often mask developments at the State and local area level which together make up national changes. The United States is actually composed of many distinct economic regions with their own industrial concentrations. This regional specialization results in unequal growth rates among different areas of the country and explains why regions may be more (or less) susceptible to short-term cyclical fluctuations.

This article focuses on employment and unemployment developments at the subnational level, using data from two Bureau of Labor Statistics' Federal-State cooperative programs. The Local Area Unemployment Statistics Program (LAUS) provides State and county unemployment rates, and the Current Employment Statistics Program (CES) provides employment estimates by industry and State. The data are analyzed over two periods—1970 to 1980, to provide a background perspective—and 1979 to 1982, to show recent trends.

Comparison measures

Measures of employment and unemployment are key barometers of the economic well-being of an area. The State employment figures from the Current Employment Statistics program provide a count of the number of nonagricultural jobs. When changes in employment are analyzed at the

industry level, one is provided insight into which sectors of the local economy are expanding and which are stable or contracting. Growth rates in area employment can be compared, and the relative concentration of industries can be analyzed.

As in the case of national unemployment rates, State and local unemployment rates represent the number of unemployed persons expressed as a percentage of the resident civilian labor force. The civilian labor force, in turn, is the sum of total civilian employment and the number of unemployed. Consequently, the unemployment rate is affected by changes in the size of the labor force and in the number of unemployed. The unemployed can be categorized as follows: (1) job losers; (2) job leavers; (3) reentrants; and (4) new entrants.

Job losers are persons whose employment ended involuntarily and who immediately began looking for work, including those on layoff. Job leavers are persons who quit or otherwise terminated their employment voluntarily and immediately began looking for work. Reentrants are persons who previously worked at a full-time job lasting 2 weeks or longer or had looked for work before dropping out of the labor force. New entrants are persons who never worked at a full-time job lasting 2 weeks or longer.

The following tabulation shows unemployment among these components during a prerecession year, 1979, and a recession year, 1982. The percent change between the 2 years is also shown. Job losers, both those on layoff and other terminations, increased dramatically—more than 100

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percent. By contrast, the number of job leavers was relatively stable, and the number of new entrants and reentrants rose by about a third, as seen below (numbers in thousands):

	1979	1982	Percent change
Total	6,137	10,678	74.0
Job losers	2,653	6,268	137.9
Layoffs	851	2,127	153.5
Other	1,784	4,141	132.1
Job leavers	880	840	-4.5
Reentrants	1,806	2,384	32.0
New entrants	817	1,185	45.0

Thus, it is changes in the number of job losers which account for most of the rise in unemployment during recent as well as historic economic downturns. Movements in this group are the result of an employer terminating a worker (as opposed to the more voluntary act of leaving or deciding to enter or reenter the labor market). Therefore, areas experiencing rising joblessness during recent recessions should coincide with areas having employment losses.

Regional specialization

Changes in aggregate demand, such as the recent decline in sales of automobiles or an increasing need for domestic energy supplies, do not impact all regions in the same manner. Industries or particular types of natural resources are often concentrated in particular areas. For example, the contiguous North Central States of Michigan, Indiana, Ohio, and Wisconsin account for about 14 percent of the Nation's nonagricultural employment, but 62 percent of employment in motor vehicle manufacturing. Michigan alone has nearly 40 percent of motor vehicle manufacturing jobs—10 times its share of all jobs in the nonfarm economy. By contrast, six contiguous States (Texas, Oklahoma, Louisiana, New Mexico, Colorado, and Wyoming) account for more than three-fourths of U.S. employment in oil and gas extraction, but only 11 percent of all nonfarm jobs.

Table 1 shows the regional concentration of these industries, and two other "key" industries which are highly concentrated—lumber and textiles. The table's last column shows the "concentration ratio" of a State; the ratio is derived by dividing the State's share of national employment in an industry by its share of total nonfarm jobs. For example, textile employment in North Carolina accounts for 28.6 percent of nationwide textile employment and 2.6 percent of all U.S. nonfarm jobs. Thus, the relative concentration of textile jobs is 11.0 ($28.6 \div 2.6 = 11.0$). This means that North Carolina has 11 times more jobs in textiles than it would have if its textile employment matched its share of total nonfarm employment.

Regional specialization in terms of industries causes specific changes in demand to affect geographic areas quite differently. For example, a decline in textile employment

would have little impact in Idaho, while a drop in the demand for lumber would not materially affect Michigan.

The ability of a State or region to adapt to changes in demand depends on many factors, including the rate of population and labor force growth, the degree of diversification of the region's industrial structure, the concentration of "secondary" or "feeder" industries dependent on "primary" industries, and whether industries affected by changes in demand have significant multiplier effects.

California and Oregon provide a good comparison of the effect of industry diversification. Each State accounts for roughly the same share of the Nation's employment in the lumber and wood products industry—about 10 percent. Yet, changes in demand for the products of the industry affects the overall employment situation in California far less than they do in Oregon; less than 1 percent of California's employment is in this industry, compared with nearly 8 percent of Oregon's. This was the case in 1979-82, when the curtailment of construction resulted in a sharp decline in demand for lumber. Both States began the period with nearly identical unemployment rates (6.2 percent in California and 6.4 percent in Oregon in July 1979). However, by February 1981, Oregon's jobless rate topped 10 percent, while California's stood at 8 percent. It was not until mid-1982, when employment dropped in a broad range of industries—such as construction, numerous manufacturing industries (notably, aircraft), transportation, and public utilities, trade and government—that California's rate rose above 10 percent.

Ohio provides a good example of the effect of substantial "feeder" industries on State employment changes. While it has approximately 5 percent of all nonfarm jobs in the Nation, it accounts for 12 percent of all motor vehicle manufacturing jobs. However, Ohio also accounts for approximately 10 percent of jobs in several related industries (primary and fabricated metals), and nearly 25 percent of employment in tire and rubber manufacturing (another industry largely dependent on automobile production). Thus, a change in auto production has an impact on Ohio's employment far beyond what would be expected by looking at motor vehicle manufacturing alone. When the slump in domestic automobile production began in the second half of 1979, the unemployment rate in Ohio rose rapidly from 6.6 percent in July 1979 to 10.3 percent a year later. As the slump continued, the State's jobless rate rose further—to 12.2 percent in mid-1982.

County and State joblessness

During 1979, the national average unemployment rate was 5.8 percent, but county unemployment rates ranged from a high of 40 percent in Menominee County, Wisconsin to less than 1 percent in Sioux County, Nebraska. Even during a period of relatively low unemployment, 89 counties had rates of 12 percent or more, and 107 had rates between 10 and 11.9 percent. (See chart 1.) These areas are apt to have certain "structural" problems retarding economic

Table 1. Examples of key industry employment impact,¹ 1979

Key industry and State	Key industry employment (in thousands)	Total nonagricultural employment (in thousands)	Key industry employment as a percent of:		State nonagricultural employment as percent of U.S. total	Concentration ratio ²
			State total	U.S. industry total		
Motor vehicles:						
Michigan	392.7	3,637.1	10.8	39.7	4.0	9.9
Indiana	64.6	2,236.3	2.9	6.5	2.5	2.6
Ohio	120.1	4,484.7	2.7	12.1	5.0	2.4
Wisconsin	33.4	1,960.2	1.7	3.4	2.2	1.5
Lumber and wood products:						
California	68.7	9,664.6	0.7	9.0	10.8	0.8
Oregon	81.2	1,056.2	7.7	10.6	1.2	8.8
Washington	53.9	1,581.2	3.4	7.0	1.8	3.9
Idaho	18.8	338.0	5.6	2.5	0.4	6.3
Oil and gas extraction:						
Texas	194.1	5,601.8	3.5	40.9	6.2	6.6
Oklahoma	57.8	1,087.3	5.3	12.2	1.2	10.2
Louisiana	74.8	1,517.4	4.9	15.8	1.7	9.3
New Mexico	11.0	461.0	2.4	2.3	0.5	4.6
Colorado	14.6	1,218.0	1.2	3.1	1.4	2.2
Wyoming	15.7	200.7	7.8	3.3	0.2	16.5
Textiles:						
North Carolina	253.8	2,372.9	10.7	28.6	2.6	11.0
South Carolina	142.1	1,176.0	12.1	16.1	1.3	12.4
Georgia	123.7	2,127.5	5.8	14.0	2.4	5.8
Alabama	43.9	1,362.0	3.2	5.0	1.5	3.3

¹Data for 1979 are used for comparison to show the prerecession impact. ²Represents the ratio of column 4 to column 5. A ratio greater than 1.0 indicates that industry employment is relatively more concentrated in the State than is total employment.

progress. Also, the counties tend to be clustered in certain regions. For example, the industrial Great Lakes States, and counties along the Appalachian mountains generally had above average unemployment, as did the Northwestern Pacific areas and parts of the Southwest. There is also a line of high unemployment in the Texas counties which border Mexico.

By contrast, the lower unemployment areas were concentrated through the central agricultural States (the Dakotas, Kansas, Minnesota, Iowa, and Wyoming) and many sunbelt areas where employment has soared.

In 1982, the U.S. unemployment rate averaged 9.7 percent. The high-unemployment area expanded and the low unemployment area contracted. This "spreading out" of unemployment is related to both industrial composition and secondary effects.

Industry composition. Adjacent areas may contain additional firms within the same industry or in industries related to those initially showing employment cutbacks in the wake of declines in demand. For example, declining demand for automobiles has secondary impacts on employment in related industries such as steel, tires, and glass, which sell a significant portion of their output to auto manufacturers and are concentrated in roughly the same geographic area.

Secondary effects. High unemployment, of course, results in reduced purchasing power. Workers on layoff, or those fearing possible layoff, curtail spending. There is a ripple effect because of commuting, work, and shopping patterns. Declining sales mean less hiring in other industries and in adjacent localities.

Overall, nearly one-third of the counties had jobless rates

of at least 12 percent in 1982. Nevertheless, one-fourth of the counties were below 6 percent, although they were concentrated in a very narrow band through the Nation's center.

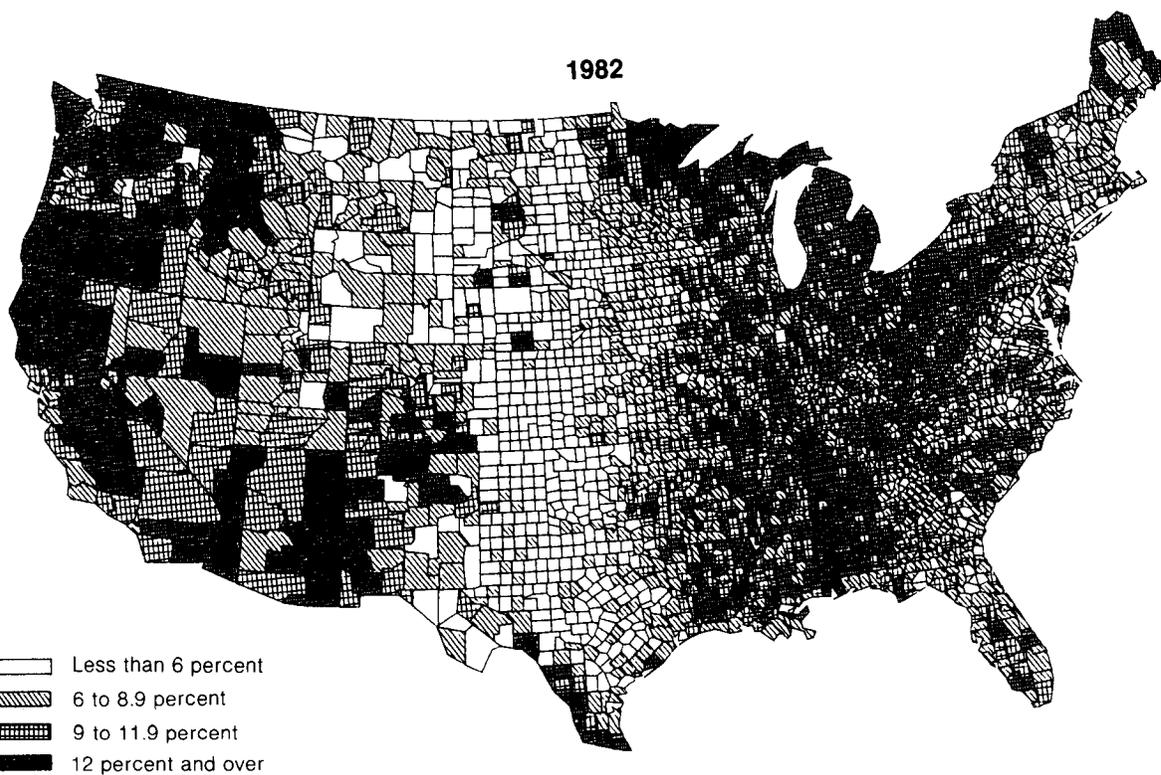
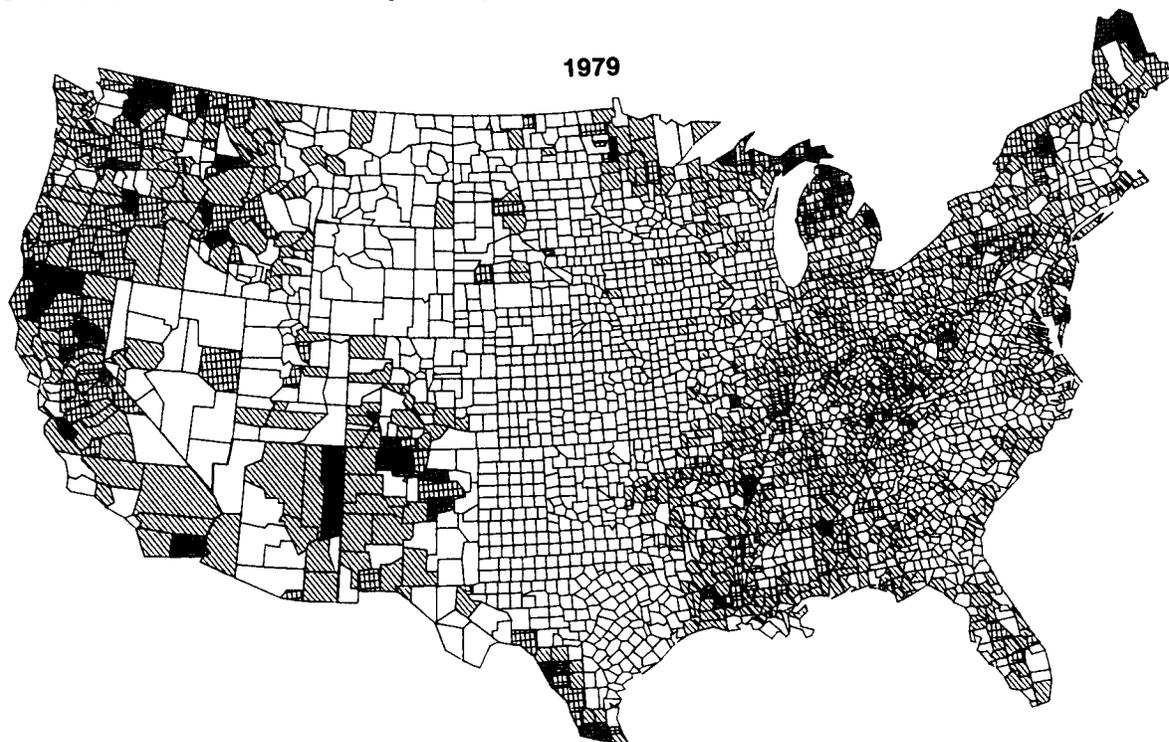
Industry employment trends, 1970-80

As noted, industry growth patterns have a substantial impact on regional economic performance. This section looks at industry employment trends during 1970-80 as they affected States. The period is illustrative of the general economic trends which prevailed prior to the 1980-82 recessions. It will be shown later that many of the industries and regions which evidenced lagging growth during the 1970's were hardest hit during the 1980 and 1981-82 recessions.

During the 1970's, overall employment rose by 28 percent, but growth rates varied considerably. Manufacturing jobs advanced by less than 5 percent, and transportation and public utilities by less than 5 percent. By contrast, mining grew by nearly 65 percent. In general, the service-producing sector of the economy has been growing rapidly, while the goods-producing sector, except for mining, has grown less rapidly. Seventy percent of the employment increase from 1970 to 1980 was in the private service-producing sector. Government employment grew at about the same pace as the average for all nonagricultural industries, with State and local government accounting for the bulk of the increase.

An examination of overall employment changes by State during 1970-80 shows that States with the slowest growth—2.5 percent or less per year—are confined in a solid band extending from Iowa and Missouri east through the Great Lakes to Pennsylvania, New York, Connecticut, and Massachusetts. Generally, these States are in the industrial heartland, with older manufacturing facilities. The majority of States fall into the second category having annual growth

Chart 1. The increase in county unemployment rates between 1979 and 1982¹



¹ Annual averages for counties in the contiguous United States.

between 2.6 and 5 percent. Job creation was fastest in Florida and the Western States, where rapid population and energy exploration growth have spurred demand for expanded services. Table 2 provides a comparison of population and employment trends by State from 1970 to 1980. The States are arranged by Census Bureau-designated regions and divisions so that patterns can be more readily discerned.

The relationship between employment growth and shifts in the population is demonstrated in table 3, which compares employment growth in the 10 fastest and slowest population growth States. Part of the employment shift reflects the movement of people to where the jobs are. However, businesses may also choose to locate where there is growing or surplus labor supply. Proximity to raw materials and available markets are both important factors in business location or expansion.¹ Thus, jobs often move to the people. This process of growth, once begun, appears to build up considerable momentum.

Underlying regional employment shifts are changes within industries. Energy exploration was a significant driving force behind employment gains in States such as Alaska, Colorado, New Mexico, Oklahoma, Texas, Utah, and Wyoming. Employment in mining, which includes oil and gas extraction as well as coal and metal mining, rose by 5.1 percent or more annually in 13 States during the 1970's, as the rapid increase in energy prices and the need to develop domestic energy sources spurred exploration.²

At the same time, however, mining employment declined in Maryland, in three Northeastern States (New Jersey, New York, and Vermont), and three Midwestern States (Wisconsin, Iowa, and Missouri). Mining is an insignificant portion of these States' economies—one-tenth to one-third the proportion nationally. By contrast, in 9 of the 13 States with annual gains above 5 percent, employment in mining was at least twice the proportion nationally; and in two other States it was about the same as the national average. (See table 4.)

In terms of jobs, manufacturing was the slowest growing industry division during the 1970's—advancing, as noted, by less than 5 percent over the decade. Among selected manufacturing industries, only employment in "instruments" increased more rapidly than the national average for all industries. Rubber and the expanding plastics industry and machinery except electrical (which includes agricultural, construction, and mining equipment) increased at rates close to the national average. Losing employment during the decade were such industries as leather, which declined by 30 percent, textiles, apparel, and primary metals.

Changes in manufacturing employment during the 1970's show a distinct regional pattern. The same band of States which experienced the slowest overall growth recorded declines in manufacturing. Manufacturing accounts for one-fifth to one-third of nonfarm employment in almost all of these States. These are the older manufacturing areas dom-

inated by "heavy" industry, such as autos, tires, steel, and machinery. By contrast, lighter manufacturing centers are emerging in Florida and the Southwest, where employment gains have occurred in electronics, instruments, petroleum refining, or other high technology industries.

As discussed earlier, the fastest growth during the postwar period has been in industries which provide services—wholesale and retail trade; finance, insurance, and real estate; public utilities; business, medical, educational, and other services. Legal, business, and health services increased at 2.5 to 3 times the average for all industries. Transportation and public utilities registered the smallest increase, largely because of the continued decline in rail transportation. Expansion of service-related employment also shows regional differences. Florida and most of the Southwestern States posted annual gains of at least 5.1 percent. Because many service industries are consumer oriented, the geographic distribution of service-related employment growth looks very similar to that for population. Service employment gains are smallest in the States with the slowest population growth and greatest in New Hampshire, Florida, and the Western States which gained population. Table 2 contrasts employment growth in the private service-producing sector with population growth by State. The correlation becomes quite apparent when examining the rankings (in descending order).

Industry employment trends, 1979–82

Unlike the 1970's, when employment advanced by nearly 2.5 percent per year, employment growth was virtually at a standstill from 1979 to 1982. As noted, the period included two economic downturns, with only a brief recovery between them. In general, employment gains in mining, services, finance, and trade were offset by heavy losses in manufacturing and construction, and modest declines in government and transportation and public utilities. The decrease in transportation and public utilities is, in part, related to its historically slow growth, but also to the slump in manufacturing and construction, as fewer heavy goods were transported. Federal, State, and local government job losses during 1979–82 are in marked contrast with the longer period (1970–80) when government employment grew at about the average for all industries:³

	<i>Percent, 1970–80</i>	<i>Change, 1979–82</i>
All nonagricultural industries..	27.5	- .3
Mining	64.8	16.2
Services	54.9	10.2
Finance	41.6	6.8
Trade	35.0	1.0
Government	29.4	- .9
Construction	21.1	-14.1
Transportation and public utilities	14.0	-1.1
Manufacturing	4.7	-11.6

Table 2. Selected measures of employment by State, 1970-80 and 1979-82

Region and State	1970-1980						1979-1982				
	Population		Nonagricultural employment		Private service-producing employment		Nonagricultural employment		Unemployment rate ²		
	Percent change ¹	Rank	Percent change ¹	Rank	Percent change ¹	Rank	Percent change ¹	Rank	1979	1982	Change
United States	1.1	—	2.4	—	3.4	—	³	—	5.8	9.7	3.9
Northeast:											
<i>New England:</i>											
Connecticut	0.2	45	1.8	39	3.4	35	0.7	14	5.1	6.9	1.8
Maine	1.2	28	2.3	37	3.9	28	-0.4	25	7.2	8.6	1.4
Massachusetts	0.1	47	1.7	41	2.4	47	0.2	22	5.5	7.9	2.4
New Hampshire	2.2	13	4.1	12	5.1	11	1.3	10	3.1	7.4	4.3
Rhode Island	0.0	49	1.5	44	2.5	46	-0.8	29	6.6	10.2	3.6
Vermont	1.4	23	3.1	27	3.8	33	0.7	16	5.1	6.9	1.8
<i>Mid-Atlantic:</i>											
New Jersey	0.3	44	1.6	43	2.8	42	0.6	17	6.9	9.0	2.1
New York	-0.4	50	0.1	50	0.8	50	0.3	20	7.1	8.6	1.5
Pennsylvania	0.1	48	0.9	49	2.2	49	-1.7	39	6.9	10.9	4.0
South:											
<i>South Atlantic:</i>											
Delaware	0.8	31	1.8	40	2.9	40	0.2	21	8.0	8.5	0.5
Florida	3.7	3	5.2	6	6.0	6	3.6	4	6.0	8.2	2.2
Georgia	1.8	16	3.3	24	4.5	19	1.1	11	5.1	7.8	2.7
Maryland	0.7	32	2.4	35	3.2	37	-0.4	26	5.9	8.4	2.5
North Carolina	1.5	21	2.9	31	3.9	29	-0.5	28	4.8	9.0	4.2
South Carolina	1.9	15	3.5	21	5.0	12	-0.4	25	5.0	10.8	5.8
Virginia	1.4	24	3.6	19	4.6	18	0.2	23	4.7	6.9	2.2
West Virginia	1.1	30	2.3	38	3.2	39	-2.6	46	6.7	13.9	7.2
<i>East South Central:</i>											
Alabama	1.2	29	3.0	28	3.9	27	-1.2	32	7.1	14.4	7.3
Kentucky	1.3	26	2.9	30	3.8	31	-2.2	43	5.6	10.6	5.0
Mississippi	1.3	25	3.6	18	4.4	22	-1.8	41	5.8	11.0	5.2
Tennessee	1.6	20	2.8	32	4.0	26	-1.7	40	5.8	11.8	6.0
<i>West South Central:</i>											
Arkansas	1.7	17	3.3	23	4.3	24	-1.4	33	6.2	9.8	3.6
Louisiana	1.4	22	4.3	11	4.9	14	2.1	7	6.7	10.3	3.6
Oklahoma	1.7	19	4.1	14	4.6	17	4.3	2	3.4	5.7	2.3
Texas	2.4	10	4.9	7	5.3	8	3.8	3	4.2	6.9	2.7
North Central:											
<i>East North Central:</i>											
Illinois	0.3	43	1.1	48	2.3	48	-2.0	42	5.5	11.3	5.8
Indiana	0.6	36	1.4	45	2.9	41	-3.5	49	6.4	11.9	5.5
Michigan	0.4	40	1.4	46	2.6	43	-4.3	50	7.8	15.5	7.7
Ohio	0.1	46	1.2	47	2.6	45	-2.6	45	5.9	12.5	6.6
Wisconsin	0.6	34	2.4	36	3.5	34	-1.6	36	4.5	10.7	6.2
<i>West North Central:</i>											
Iowa	0.3	42	2.4	34	3.2	36	-3.1	47	4.1	8.5	8.4
Kansas	0.5	38	3.4	22	3.8	30	-1.0	30	3.4	6.3	2.9
Minnesota	0.7	33	3.0	29	4.0	25	-1.1	31	4.2	7.8	3.6
Missouri	0.5	39	1.7	42	2.6	44	-1.6	36	4.5	9.2	4.7
Nebraska	0.6	35	2.6	33	3.2	38	-1.5	35	5.1	6.1	1.0
North Dakota	0.5	37	4.1	13	4.5	20	0.9	12	3.7	5.9	2.2
South Dakota	0.4	41	3.1	26	3.8	32	-1.6	37	3.5	5.5	2.0
West:											
<i>Mountain:</i>											
Arizona	4.4	2	6.4	3	7.2	3	1.7	9	5.1	9.9	4.8
Colorado	2.7	8	5.2	5	6.1	5	2.5	6	4.8	7.7	2.9
Idaho	2.8	6	4.7	9	5.9	7	-2.6	44	5.7	9.8	4.1
Montana	1.3	27	3.5	20	4.4	23	-1.4	33	5.1	8.6	3.5
Nevada	5.0	1	7.0	1	7.5	2	1.9	8	5.1	10.1	5.0
New Mexico	2.5	9	4.8	8	5.2	9	0.9	12	7.4	9.2	1.8
Utah	2.8	5	4.4	10	5.2	10	0.7	15	4.3	7.8	3.5
Wyoming	3.3	4	6.9	2	6.6	4	2.7	5	3.9	5.8	1.9
<i>Pacific:</i>											
Alaska	2.8	7	6.2	4	8.0	1	6.1	1	9.2	9.9	0.7
California	1.7	18	3.6	17	4.4	21	0.6	17	6.2	9.9	3.7
Hawaii	2.3	12	3.3	25	4.7	16	0.6	18	6.3	6.7	0.4
Oregon	2.3	11	3.9	16	4.8	15	-3.1	48	6.8	11.5	4.7
Washington	1.9	14	4.1	15	5.0	13	-0.3	24	6.8	12.1	5.3

¹Percent changes are shown at annualized rates to facilitate comparison between time periods.

²Percent of civilian labor force.

³Less than -0.1 percent.

Table 3. Comparison of population and employment changes in selected States, 1970-80

Fastest-growing States	Employment		Population	
	Percent change	Rank	Percent change	Rank
Nevada	96.8	1	63.5	1
Wyoming	94.1	2	41.6	4
Arizona	85.2	3	53.1	2
Alaska	82.0	4	32.4	7
Colorado	66.8	5	30.7	8
Florida	65.9	6	43.4	3
Texas	61.4	7	27.1	10
Idaho	58.8	8	32.4	6
New Mexico	58.0	9	27.8	9
Utah	54.3	10	37.9	5
Slowest-growing States	Employment		Population	
	Percent change	Rank	Percent change	Rank
New York	0.7	50	-3.8	50
Pennsylvania	9.2	49	0.6	48
Illinois	11.6	48	2.8	43
Ohio	12.5	47	1.3	46
Michigan	14.6	46	4.3	40
Indiana	15.2	45	5.7	36
Rhode Island	15.8	44	-0.3	49
New Jersey	17.4	43	2.7	44
Missouri	18.1	42	5.1	39
Massachusetts	18.2	41	0.8	47

SOURCE: Population data are from U.S. Bureau of the Census, 1970 and 1980 decennial census.

As a result of these divergent trends, nonagricultural employment declined by 0.3 percent from 1979 to 1982. Decreases were recorded in 28 States, while growth in the other States was significantly below 1970-80 averages. Most of the Southwestern States had employment gains, while most of the Great Lakes and Southern States experienced losses. Not surprisingly, States having the largest employment declines were those experiencing the highest rates of joblessness. (See table 2.)

In comparing State employment changes over the two periods, several conclusions can be drawn. First, many of the States—primarily the industrial North Central and Mid-Atlantic States—with the slowest growth during the 1970's had the steepest losses over the more recent period. Thus, in these areas the recession struck an already weak economy. At the same time, job losses in many Southern States during 1979-82 contrast sharply with gains during the 1970's. The same can be said for the Pacific Northwestern States (Washington, Oregon, Idaho, and Montana). Finally, no State was immune from the slowdown. Growth rates in all States were lower during 1979-82 than in the 1970's. For example six States had annual employment gains in excess of 5 percent per year during the 1970's. Only one State (Alaska) was able to match this level of performance during 1979-82.

Employment declines were particularly steep in the construction industry, where high interest rates and the movement of funds out of savings and loan institutions affected both the cost and availability of mortgage lending. Only five States registered job gains in this sector during 1979-82—Alaska, Florida, Massachusetts, New York, and Texas. Annual reductions of 5.1 percent or more occurred in one-

third of the States, with the largest declines in Iowa, Michigan, Nebraska, Oregon, South Dakota, and Washington.

While construction employment accounts for only 4 to 10 percent of employment at the State level, construction activity has a significant "multiplier effect." For every 10,000 jobs within the construction industry, 12,000 to 14,000 jobs are required in industries which produce, sell, and deliver materials and equipment in support of the construction.⁴ These industries include lumber, furniture, concrete, appliances, and textiles.

Manufacturing employment was also hard hit during this period, rising in only four States—Arizona, Colorado, Florida, and Texas. Declines were steepest in the industrial belt stretching from Iowa eastward to Pennsylvania, and in Idaho. In comparing the current situation with the 1970-80 trend, it is evident that those States where manufacturing continued to expand during 1979 to 1982 are essentially the same as those which exhibited the strongest growth during the 1970's—Florida and the Southwestern States. However, growth rates were cut about in half. The New England States, which had posted modest gains during the 1970's, experienced declines during the recent period.

To illustrate the severity of the situation in States largely dependent on manufacturing, Michigan, Indiana, Ohio, and Illinois combined had been losing approximately 40,000 manufacturing jobs per year during the 1970's. From 1979 to 1982, their losses totaled 320,000 jobs per year.

Much of the decline in the industrial Midwest is related to the slump in domestic automobile production, which began in the second half of 1979. The motor vehicle industry also exhibits a sizable multiplier effect. For every 10,000

Table 4. Mining employment in selected States, 1980

Slowest-growing States, 1970-80 ¹	Mining employment (In thousands)	Percent of nonagricultural employment	Percent of U.S. mining employment
United States	1,020.0	1.1	100.0
Iowa	2.2	0.2	0.2
Maryland	1.4	0.1	0.1
Missouri	7.6	0.4	0.7
New Jersey	2.4	0.1	0.2
New York	6.1	0.1	0.6
Vermont	0.7	0.3	0.1
Wisconsin	2.6	0.1	0.3
Fastest-growing States, 1970-80 ²	Mining employment (In thousands)	Percent of nonagricultural employment	Percent of U.S. mining employment
Alaska	6.5	3.8	0.6
Alabama	16.9	1.2	1.7
Colorado	36.2	2.9	3.5
Kentucky	52.8	4.4	5.2
Louisiana	87.3	5.6	8.9
Mississippi	10.8	1.3	1.1
New Mexico	29.4	6.3	2.9
North Dakota	7.8	3.2	0.8
Oklahoma	74.9	6.6	7.3
Oregon	2.3	0.2	0.2
Texas	241.7	4.1	23.7
Washington	3.2	0.2	0.3
Wyoming	35.5	16.9	3.5

¹States with annual employment declines in mining from 1970 to 1980.

²States with annual employment gains in mining of 5.1 percent or more from 1970 to 1980.

jobs within the industry, about 20,000 are required in other industries, including 2,300 in fabricated metals, 2,200 in primary metals, 2,500 in wholesale trade, and 900 in business services.⁵

A look at the magnitude of the employment decline in 2-digit manufacturing industries from 1979 to 1982 reveals the only major industry groups to post gains were printing and instruments. These two were also among the fastest growing manufacturing industries during 1970–80. Stone, clay, and glass and lumber experienced declines of about 20 percent over the 1979–82 period. This coincides with a 14-percent decline in construction employment, as these industries are closely tied to the building trades. Primary metals recorded the largest employment loss—nearly 30 percent.

In contrast with the goods-producing sector of the economy, service-producing industries continued to expand na-

tionally during 1979–82. However, in many of the States most directly affected by the recession, service employment declined—Michigan, Indiana, Iowa, South Dakota, Idaho, and Oregon. Service-related employment is usually the last to experience a decline during a recession, as higher unemployment reduces consumer spending. Employment growth in the other States was considerably below the 1970–80 trend. Only Alaska posted an annual gain of more than 5 percent, compared with 10 States during the 1970's.

FOR AN ECONOMY of distinct regions and diverse industries, aggregate statistics do not tell the full story of the Nation's employment and unemployment. The recent economic slowdown did not affect all areas equally. State and local data reveal sharp variations in job growth and joblessness during this period, as well as from the longer perspective of a decade. □

—FOOTNOTES—

¹ Philip L. Rones, "Moving to the sun: regional job growth, 1968 to 1978," *Monthly Labor Review*, March 1980, pp. 12–19.

² Richard Greene, "Employment trends in energy extraction," *Monthly Labor Review*, May 1981, pp. 3–8.

³ John Tucker, "Government employment: an era of slow growth,"

Monthly Labor Review, October 1981, pp. 19–25.

⁴ Robert Ball, "Employment created by construction expenditures," *Monthly Labor Review*, December 1981, pp. 38–44, table 1.

⁵ Derived from the latest "employment inverse" tables prepared by the Office of Economic Growth and Employment Projections, Bureau of Labor Statistics.