

The Tenth District economy: still playing catch-up

By Glenn H. Miller, Jr.

Economic performance in the Tenth Federal Reserve District lagged behind U.S. economic performance again in 1989, as major sectors of the district economy combined for another mixed performance. Revival in the energy sector joined further improvement in agriculture to support modest overall growth, while manufacturing performance weakened.

Slow growth in the region is expected to continue in 1990. Sluggishness in the national economy—especially in manufacturing—is likely to be reflected in district economic performance. While some additional improvement may be expected in the district's farm and energy sectors, no strong source of overall growth has emerged.

This article reviews the district's economic performance in 1989 and explores the outlook for 1990. The first section of the article surveys the 1989 economic performance of the district

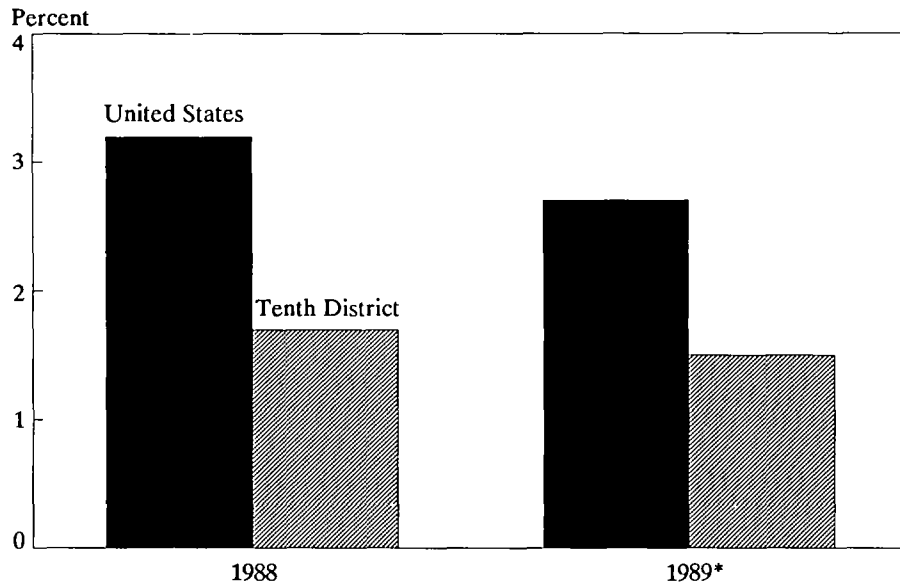
and its individual states. The second section examines the district's major sectors and their employment outlook. The third section discusses recent and prospective economic performance for each of the district states.

I. Recent Performance in the District

The district economy recorded modest growth in employment and income in 1989.¹ Average employment in the district grew at an annual rate of about 1.5 percent through the first three quarters of the year, somewhat slower than the 1.7 percent rate recorded in 1988 (Chart 1).² Although employment growth slowed, even slower labor force growth resulted in a district unemployment rate that averaged 5.3 percent for the first three quarters of the year, compared with an average rate of 5.9 percent in 1988. Real personal income in the district grew at a 1.8 percent annual rate through the first half of the year, faster than the 1988 rate of 0.8 percent (Chart 2).³ The relatively slow growth in both income and employment in the district is expected to continue in 1990.

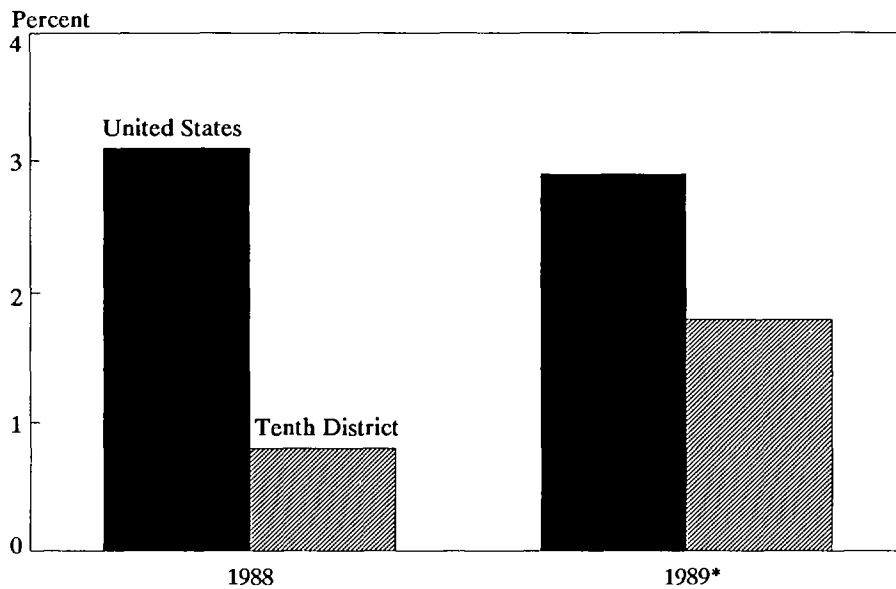
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CHART 1
Growth in nonagricultural employment, U.S. and Tenth District



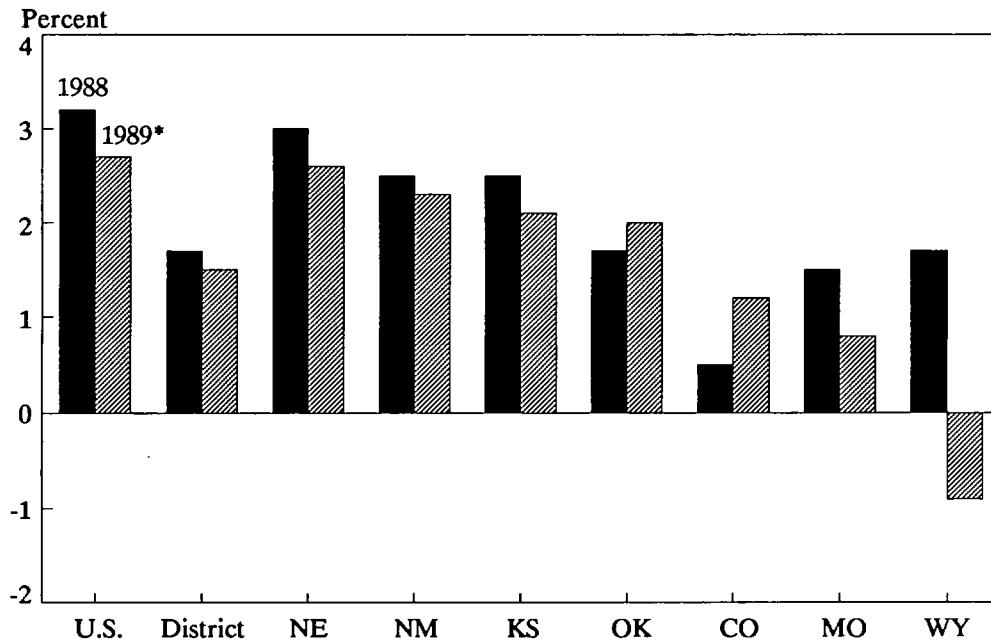
*First three quarters, seasonally adjusted annual rates.
 Source: Bureau of Labor Statistics.

CHART 2
Growth in real personal income, U.S. and Tenth District



*First two quarters, seasonally adjusted annual rates.
 Source: Data Resources, Inc.

CHART 3
Growth in nonagricultural employment in Tenth District states



*First three quarters, seasonally adjusted annual rates.
 Source: Bureau of Labor Statistics.

The district's modest pace of economic growth in 1989 was attributable to weakness in several key sectors of the regional economy. Sagging performance in manufacturing, construction activity, and the trade and services sectors curbed overall district growth, despite improvement in the farm and energy sectors.

Economic growth in the district was slower than in the nation again in 1989. Nonfarm employment in the district grew at a 1.5 percent annual rate through the first three quarters of the year, compared with a 2.7 percent rate in the nation (Chart 1). Average unemployment for the first three quarters was 5.3 percent in both the nation and the district. Real personal income through the first six months of the year grew at a 1.8 percent rate in the district, compared with

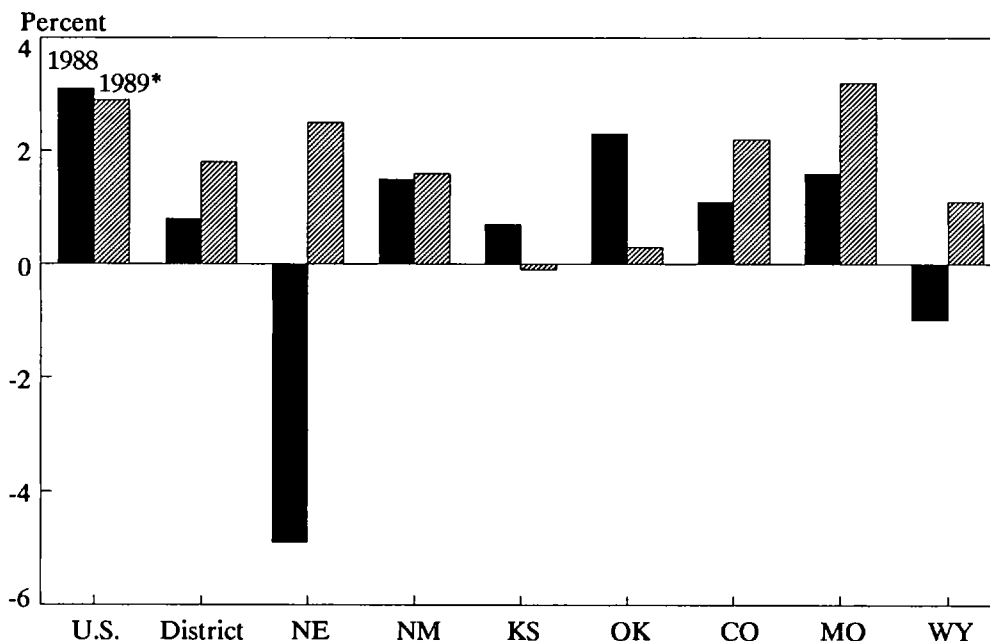
2.8 percent in the nation (Chart 2). The gap between U.S. and district employment growth was about the same in 1989 as in 1988, but the gap between U.S. and district income growth narrowed considerably.

Nonfarm employment grew more slowly in the first three quarters of 1989 than in 1988 in five district states (Chart 3). Employment growth was positive but slower last year in Kansas, Missouri, Nebraska, and New Mexico, while employment in Wyoming declined in 1989 after growing in 1988. In the remaining two states—Colorado and Oklahoma—employment grew faster in 1989 than the year before.

Real personal income grew faster in the first half of 1989 than in 1988 in five district states (Chart 4). In Colorado, Missouri, and New

CHART 4

Growth in real personal income in Tenth District states



*First two quarters, seasonally adjusted annual rates.

Source: Data Resources, Inc.

Mexico, income grew faster in 1989 than in 1988, while in Nebraska and Wyoming, income grew in 1989 after declining the year before. In Oklahoma, real personal income grew slower in the first half of the year than in 1988; and in Kansas, income declined slightly compared with the previous year.

II. Review and Outlook by Sector

Performance in the key sectors of the district economy continues to be mixed, and the pattern of strength and weakness appears unlikely to change in the year ahead. Sectors contributing strength to economic activity in 1989 are likely to do so again in 1990, while last year's weaker

sectors are not expected to improve much this year.

Recent sector performance

Improvement in the district's important farm and energy sectors contributed materially to economic activity and job growth in 1989. District manufacturing weakened significantly and construction activity remained sluggish.

Agriculture. Conditions in the district's farm sector continued to improve in 1989. The district was somewhat more affected by drought in 1989 than in 1988. Winter wheat yields were sharply lower in some parts of the district, while fall crop yields generally were about normal.

TABLE 1
Growth in nonagricultural employment by sector, Tenth District states

	Percent change	
	1988*	1989†
Manufacturing	2.2	0.7
Durable goods	2.8	0.3
Transportation equipment	3.0	2.1
Nondurable goods	1.4	1.1
Food processing	1.0	1.2
Printing and publishing	2.0	1.6
Mining	-4.6	2.8
Construction	-6.0	-1.4
Services	3.5	2.0
Wholesale trade	1.9	0.8
Retail trade	1.9	0.7
Federal government	-1.2	2.3
State and local government	2.6	3.9
Transportation	1.3	1.5
Finance, insurance, real estate	-0.4	-0.2

*From fourth-quarter 1987 to fourth-quarter 1988.

†First three quarters, seasonally adjusted annual rate.

Source: Bureau of Labor Statistics

Overall, near-normal crop yields and strong livestock prices maintained high farm incomes. Farmland values continued to rise, and agricultural credit conditions continued to improve.

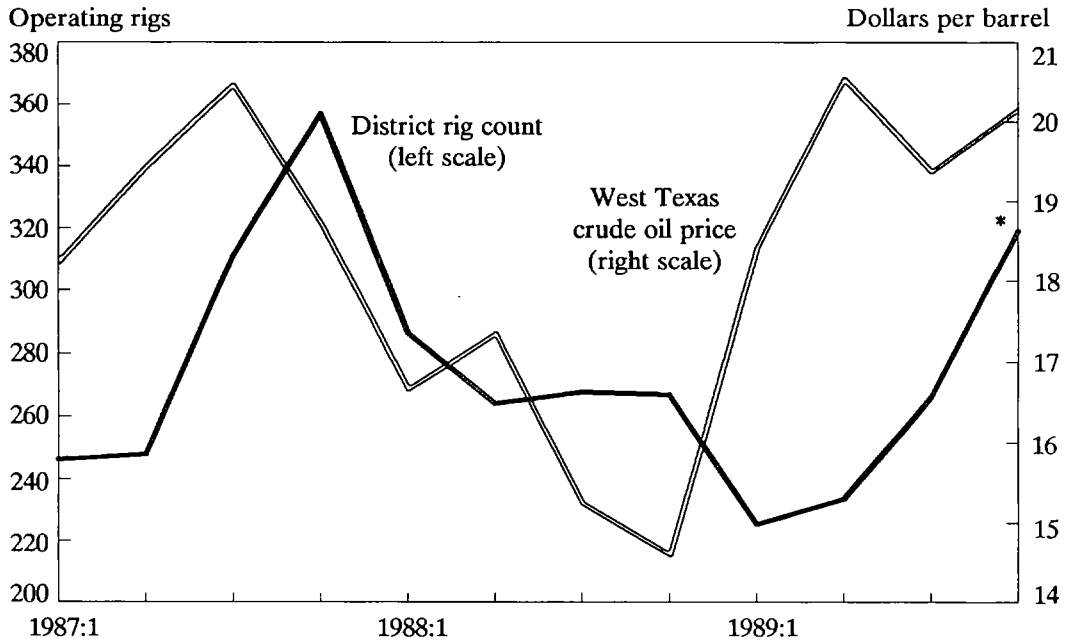
Manufacturing. District manufacturing activity weakened substantially in 1989 after a relatively strong performance in 1988. The slowdown in district manufacturing reflected the national slowing in manufacturing activity, which was partly attributable to weaker U.S. export performance. Manufacturing employment in the district increased more slowly in the first three quarters of 1989 than in 1988 (Table 1). Nevertheless, manufacturing employment still grew slightly faster in the district than in the nation in 1989.

The slowdown in district manufacturing employment growth centered in the durable

goods sector, where jobs grew considerably more slowly in 1989 than the previous year (Table 1). Weakness in the metals and machinery producing industries was only partly offset by gains in the transportation equipment sector.

Employment growth in the district's important transportation equipment industry slowed in 1989 (Table 1). Incomplete data for 1989 suggest some weakening in the district's general aviation industry compared with 1988. Both the number of new aircraft shipped and the value of shipments were slightly smaller in the first half of 1989 than in the first half of 1988. District aircraft sales have surged in the fourth quarter of each of the previous three years, however. Automobile output at district assembly plants rebounded in 1989. District plants produced 14 percent more units in the 1989 model year than

CHART 5
Crude oil price and district rig count



*1989:4 forecast based on October and November data.

Sources : Hughes Tool Company and Platt's.

in 1988, after three consecutive years of declining output. Consequently, the district share of total U.S. auto production increased from 13.0 percent in 1988 to 14.5 percent in 1989.

Nondurables manufacturing in the district remained weak in 1989, and employment growth slowed somewhat from 1988 (Table 1). Food processing plants and the printing and publishing industry accounted for nearly 55 percent of nondurables manufacturing employment in the district. Employment in both these industries posted only modest growth in 1989.

Mining and energy. The district's mining sector, a major contributor to district output, rebounded in 1989. The energy sector—the oil and gas industry, in particular—makes up the

lion's share of mining activity in the district. District mining employment grew solidly through the first three quarters of 1989, after declining in 1988 (Table 1). This substantial improvement was considerably better than the improvement in mining employment in the nation.

Movements in oil prices are obviously important for district energy activity. Oil prices have a sharp impact on drilling and production of oil and gas, the dominant energy resources of the region. Throughout much of 1988, the movement in the price of crude oil was downward, dropping to about \$14 a barrel in November. The price per barrel then increased to about \$20 in the second quarter of 1989 and remained in that neighborhood for the rest of the

year (Chart 5). This increase not only supported the increase in employment described earlier, but also induced a lagged increase in oil and gas exploration and development. The average number of drilling rigs operating in the district in the first three quarters of 1989 was 241, down from 273 in the first three quarters of 1988. But with higher oil prices, the number of operating drilling rigs in the district increased from 225 in the first quarter of 1989 to 326 in November.

Construction. Continued sluggishness in construction activity contributed to slow overall growth in the district economy in 1989. District construction employment declined further over the first three quarters of 1989 (Table 1).

In spite of slightly more favorable rates on home mortgages, district housing activity was somewhat weaker in 1989 than in 1988. Mortgage rates declined somewhat in 1989 from their early spring highs, then changed little after midyear. Housing starts in the district were down 9 percent in the first half of 1989 from the first half of 1988. Moreover, the value of residential construction contracts in the district averaged about 4 percent less in the first three quarters of 1989 than in the first three quarters of 1988.

Nonresidential construction activity in the district was also weaker in 1989. While there was some variation across the district, office vacancy rates (and to a lesser extent, industrial vacancy rates) remained high in a number of district cities. Rates remained especially high in Denver and Oklahoma City. The value of district nonresidential building contracts awarded in the first three quarters of 1989 was about 2.4 percent less than in the same period in 1988.

Trade and services. While employment growth in the district was stronger in services than in manufacturing in 1989, service employment growth slowed in the first three quarters of the year from its 1988 pace (Table 1). The services slowdown occurred despite some increases in tourist activity. Nationally, growth of service employment also slowed in 1989, but

remained considerably stronger than district growth.

Employment growth in wholesale and retail trade in the district slowed significantly in 1989 (Table 1). Employment in both trade sectors grew much more slowly in the district than in the nation, reflecting the stronger national growth in both employment and income.

Government. Federal government spending—defense spending, in particular—is an important influence on the district economy. Thus, slower growth in total federal spending is beginning to affect the district. Nonetheless, employment by the federal government in district states increased in 1989 after declining the preceding year.

More important than the federal government in the district economy, at least in terms of the number of employees, are state and local governments. More than four times as many district employees work for state and local governments as work for the federal government. Employment at state and local governments grew significantly faster in the first three quarters of 1989 than in 1988 (Table 1).

Employment and spending by state governments are affected by their fiscal condition. Changes in the fiscal condition of district states were mixed from 1988 to 1989. The size of a state's yearend balance relative to its general fund spending the preceding year is viewed as a key indicator of fiscal condition. By this measure, fiscal conditions improved in two district states, stayed about the same in three district states, and deteriorated in two district states.⁴ Modest revenue increases in nearly all district states were generally outstripped by spending increases.

Sector outlook

Growth in the district economy is expected to be slow in 1990, despite further improvement in agriculture and possible gains in the oil and gas industry. Ongoing weakness in construction

and manufacturing will likely restrain overall growth in the district economy.

District agriculture is expected to post another solid performance in 1990. The livestock sector can expect improving margins, with the outlook especially favorable for cattle ranchers. Prospects for crop producers are also generally positive, although dry growing conditions pose a potential threat to the 1990 winter wheat crop. Overall, farm incomes should remain at high levels, and some further gains in land values are expected.

The district's oil and gas industry may maintain or slightly improve its current level of activity, provided that oil prices remain relatively stable in 1990. But if OPEC continues to pump oil far in excess of its self-imposed ceilings and the demand for oil falls (as some analysts predict), oil prices may well decline in the first half of 1990. A large drop in oil prices would hurt the district's energy sector.

District manufacturing activity will likely be weak in 1990. The expected slowdown in the nation's economy will likely center in the manufacturing sector due to slower growth in exports, business fixed investment, and purchases of consumer durable goods.

How district manufacturing shares in the national slowdown will depend largely on which manufacturing industries are most affected by the slowdown. The Tenth District will almost certainly feel some of the effects of the defense build-down. Possible delays, stretch-outs, and cancellations of procurement contracts, as well as a potential shrinking of spending for research and development, would directly affect district manufacturing. Indirect effects would likely follow where high-technology industries have grown up in the shadow of defense industries. With the increase in new car sales likely to be small in 1990, district auto production will probably grow slightly at best. Special factors, such as the success of particular models built in district plants, will also affect the area's 1990 auto pro-

duction. District growth in nondurables manufacturing is likely to outpace growth in the durable goods sector again in 1990, as durables production remains weak.

Construction activity in the district probably will remain sluggish in 1990, given the slow pace of overall economic activity and continued high vacancy rates, especially in commercial buildings. Limiting the district's residential construction will be sizable housing inventories in some parts of the region.

Modest overall growth in the district economy in 1990 will permit only moderate growth in the trade and services sectors. Supporting the district's limited growth in trade and services will be continued improvement in agriculture and greater stability in the energy sector. District employment growth in trade and services is likely to trail national growth in those sectors again in 1990.

The government sector will likely contribute little to growth in the district. Concern about the federal budget deficit and the defense build-down will limit federal spending growth both in the nation and the district. State fiscal conditions are likely to come under some stress as economic growth slows. In nearly all states of the district, total balances as a percent of general fund spending are projected to be smaller in 1990 than in 1989.⁵

III. Modest Gains for District States

Most district states participated in the region's modest gains in 1989. Further modest gains are likely in 1990, with the size of the gains in individual states largely dependent on differences in industrial structure. States depending heavily on manufacturing will feel the effects of lower defense spending and sluggish auto sales. States supported by the farm and tourism sectors can expect to benefit from gains in these areas.

Nebraska

Overall economic performance in Nebraska improved in 1989. The state's employment growth was the fastest among district states and only slightly slower than the national rate. Employment growth through the first three quarters of the year was down only slightly from 1988 (Chart 3). Supporting the growth in Nebraska's economy were high farm incomes and gains in manufacturing. Real personal income increased in the first half of 1989, after declining in 1988 (Chart 4).

Agriculture in Nebraska had a strong year in 1989. Crop yields returned to normal after some sharp drought reductions in 1988. Returns to livestock producers were mixed, but ranch income was strong. Farm income in the state should be high again in 1990 as livestock margins improve.

Manufacturing led the way in the improvement of Nebraska's nonfarm sectors in 1989, spurred by continued growth in the food processing industry. Total manufacturing employment, however, slowed to a 2.7 percent annual growth rate in the first three quarters of the year, down from 5.6 percent in 1988.

Nebraska's construction sector improved in 1989, with both the residential and nonresidential sectors showing substantial gains in the first three quarters of the year. Construction employment increased at an annual rate of 1.7 percent for the same period.

Unlike most other district states, Nebraska enjoyed a gain in 1989 over the previous year's growth of employment in the business and personal services sector. Despite slow employment growth in the finance and insurance and the trade sectors in 1989, the total service sector continued to build an important base for the state's long-run economic health.

Nebraska's economy should continue to improve modestly in the year ahead. In a time of slow national growth, the state's economic

outlook should be sustained by continued improvement in the farm sector, as well as by the stabilizing presence of its food processing industry and service sector.

New Mexico

The New Mexico economy continued to grow solidly in 1989. Employment grew in the first three quarters at a rate which nearly matched the state's growth in 1988 (Chart 3). Real personal income grew slightly faster in 1989 than in 1988 (Chart 4).

New Mexico's mining sector shared in the industry's turnaround in the district and the nation in 1989. Mining employment grew at a 7.3 percent annual rate in the first three quarters of the year, after declining slightly in 1988. Employment in the state's oil and gas industry rose 4.5 percent in 1989. Despite increasing employment in the industry, the number of working rigs in the state remained below the 1988 level.

Manufacturing held its own in New Mexico in 1989, while construction activity declined. Manufacturing employment grew at a 3.4 percent annual rate in the first three quarters of the year, equal to the 1988 pace. Defense-related manufacturing and research continued to be important elements in the state's economy. Both residential and nonresidential construction activity declined in 1989, as did the number of construction workers.

The trade and service sectors in 1989 continued to perform better in New Mexico than in other district states. Tourism was again responsible for much of the strength in these sectors. New Mexico's service employment grew over 4 percent in 1989, greater than any other district state.

Improvement in New Mexico's economy will likely continue in 1989, although a range of other outcomes is possible. Gains will depend in part on improved agricultural conditions after

a poor year in 1989. New Mexico's heavy dependence on defense-related activities makes its economy vulnerable to cuts in federal spending. Some slack may be picked up by other kinds of federal programs, including environmental protection activities. Helping to sustain the state's economic health will be New Mexico's continued popularity as a tourist destination.

Kansas

Economic conditions in Kansas improved somewhat in 1989, although the improvement was less than in 1988. Employment growth outpaced employment growth in the district, but was slower than the state's growth the previous year (Chart 3). Real personal income declined slightly in the first half of 1989, after growing slightly in 1988 (Chart 4).

Improvement in the state's farm economy was slowed, but not halted, by the 1989 drought. Wheat production in Kansas fell sharply. Offsetting some of the crop losses was continued high production of livestock.

Manufacturing activity in Kansas was sluggish in 1989. Durable goods manufacturing deteriorated somewhat from its 1988 pace, while nondurables activity improved. All manufacturing employment grew at a 1.6 percent annual rate in the first three quarters of the year, following a 2.2 percent rate in 1988. Durables producers increased jobs by 1.9 percent, following a 4.2 percent increase the previous year. Aircraft production and sales gave less of a lift to Kansas manufacturing in 1989 than in 1988. But automobile production in Kansas City, where General Motors opened a new facility, rebounded from its very low 1988 level. Nevertheless, assemblies there remained well below the peak levels of the mid-1980s.

The relatively small Kansas mining sector participated somewhat in the 1989 turnaround in district mining activity. Mining employment in Kansas declined at a 0.8 percent annual rate

in the first three quarters of the year, up significantly from a 14 percent decline in 1988. Nevertheless, Kansas was the only district state that failed to post an increase in mining jobs in 1989. Higher, more stable crude oil prices after the second quarter of the year brought virtually no increase in the number of drilling rigs operating in the state.

Only moderate economic growth is likely for Kansas in 1990. Manufacturing in Kansas, as in the nation, will likely grow slowly. Manufacturing in the state may well be buoyed by the general aviation sector, while the auto sector may have a negative influence. The 1990 wheat crop remains dry and, with limited soil moisture reserves, is especially susceptible to weather developments. Nevertheless, a solid year for Kansas agriculture appears to be in the offing.

Oklahoma

The Oklahoma economy saw limited improvement again in 1989. Employment grew somewhat faster in the first three quarters of the year than in 1988 (Chart 3). Growth of real personal income slowed substantially in the first half of 1989 (Chart 4).

Oklahoma's energy industry, however, responded positively to higher oil prices in 1989. Employment in the oil and gas industry grew at a 1.5 percent annual rate in the first three quarters of the year, reversing a 4.4 percent decline in 1988. The response in the number of operating rigs lagged, however. The average number of rigs operating in the first three quarters of 1989 was still about 9 percent lower than in the same period a year earlier, although the number of rigs increased as the year went on.

Performance in Oklahoma's manufacturing sector deteriorated significantly in 1989. The decline was fairly widespread across producers of both durables and nondurables. Total manufacturing employment was about flat in 1989 after increasing 3.7 percent in 1988, despite

a sharp rebound in automobile production, which brought the number of assemblies close to the levels of the mid-1980s.

Reflecting the weakness of Oklahoma's economy were the trade and services sectors. Employment in the services sector grew more slowly in 1989 than in the year before, and considerably more slowly than services employment in the nation. Employment in Oklahoma's wholesale and retail trade industry declined in the first three quarters of 1989, compared with 1988.

Oklahoma's transition from an oil state to a more industrially diversified economy may be slowed in 1990. As in other states, weakness in the nation's manufacturing sector is also likely to show up in the Oklahoma manufacturing sector. A potentially more stable energy sector and improvement in agriculture should help sustain the state's economy until a manufacturing rebound takes hold.

Colorado

After a weak performance in 1988, the Colorado economy rebounded in 1989, although not to its heights of the mid-1980s. Although employment grew only modestly in the first three quarters of the year, that performance was still better than the slow growth of 1988 (Chart 3). The increase in real personal income in the first half of 1989 was twice the increase posted in 1988 (Chart 4). Mining and retail trade accounted for much of the improvement in Colorado's economy, offsetting poor performances by manufacturing and construction.

The improvement in Colorado's manufacturing sector, begun in 1988, stalled in 1989. Manufacturing employment increased at an annual rate of only 0.2 percent for the first three quarters of 1989, down from 2.5 percent the year before. The weakness in the state's manufacturing performance was spread across many industries.

Construction activity continued to be weak in 1989, in both the residential and nonresidential sectors. Denver's industrial and commercial vacancy rates remained above the national averages in late 1989, although downtown commercial vacancy rates have continued to fall from their earlier peaks. Total construction employment in Colorado declined at an annual rate of 1.6 percent in the first three quarters of the year, a much smaller decline than in 1988.

Colorado mining was stronger in 1989 than in the year before, although oil and gas remained weak. Total mining employment increased at a 3.6 percent rate after declining nearly 14 percent in 1988. But employment in the state's oil and gas industry continued to fall in 1989 at nearly the same rate as in 1988. While the number of operating drilling rigs increased during the year, the average number was still below the 1988 average level.

A relatively strong support for Colorado's moderate overall growth in 1989 was growth in the state's trade and services employment. Especially significant was retail trade employment. Tourism also played a prominent role in boosting the state's economic health, with skiers visiting Colorado's slopes in near-record numbers in the 1988-89 season.

Growth in Colorado's economy is likely to continue in 1990, but again its growth is likely to be moderate. Both Denver and Colorado Springs are among the top 15 cities for defense research and development spending, so the defense build-down may adversely affect them. Overall manufacturing will likely parallel the nation's weakness in that sector. Apart from the positive impact of special projects like the new Denver airport, construction's role in the state's economy will be limited, until excess residential and commercial buildings are absorbed. Tourism will continue to give solid support to the state's economy.

Missouri

Missouri's economy, the most diversified in the district, continued to grow more slowly than the nation's economy in 1989. The state's employment growth slowed even further in the first three quarters of 1989 from only modest growth in 1988 (Chart 3). The weakness in employment growth was widespread among industries. Missouri's income growth was faster in the first half of 1989 than in 1988 (Chart 4).

Manufacturing, the key to Missouri's economic health, weakened in 1989. Total manufacturing employment was flat through the first three quarters of the year, after increasing only 0.6 percent in 1988. The weakness persisted throughout industries producing both durables and nondurables. While Missouri again produced more than half of the new cars built in the district, 1989 production in the state was virtually unchanged from its 1988 level.

Both residential and nonresidential construction in Missouri continued to weaken in 1989. Late in the year, commercial vacancy rates for both Kansas City and St. Louis were above the national downtown average but below the national average for suburban areas. Missouri construction employment declined at a 3.0 percent annual rate in the first three quarters of the year, a lesser decline than the 4.3 percent drop in 1988.

Performance in Missouri's trade and services sector also sagged in 1989. Services employment grew at only a 0.4 percent rate in the first three quarters of 1989, less than one-tenth the rate of increase in national services employment and well below the 2.8 percent increase in Missouri in 1988. Trade employment growth was also weak in Missouri, especially in the retail sector.

The year ahead does not appear to be promising for the Missouri economy. General business conditions must improve for construction activity to gain new impetus. While the state's farm sec-

tor may enhance overall economic activity, the performance of Missouri manufacturing will likely be restrained by the defense build-down and weakness in new car production. Missouri, which in recent years dropped from second to third among state leaders in auto assemblies, now finds that ranking threatened by increased output and capacity in Illinois.

Wyoming

Wyoming's economic recovery faltered in 1989. Employment fell in the first three quarters of the year, after rising in 1988 (Chart 3). Real personal income, however, increased slightly in the first half of 1989 after declining slightly in 1988 (Chart 4).

The state's economy in 1989 benefited from improvement in the mining sector. Mining employment, which had decreased 4.6 percent in 1988, increased at a 1.8 percent rate in 1989. The mining of coal and trona, or soda ash, was again a major contributor to Wyoming's minerals output. The number of drilling rigs operating in the state increased as the year went on, but the average number of rigs in the first three quarters of 1989 was smaller than the average number operating in the same period the year before.

The Wyoming construction sector showed some signs of strength in 1989. Although employment declined again in 1989, an uptick in contract awards in the third quarter brought both residential and nonresidential building awards for the first three quarters of 1989 above their average level for the same period of 1988.

Agriculture and tourism were positive factors for the Wyoming economy again in 1989. Ranching, a major part of the state's agricultural sector, had particularly strong income and helped support business activity in much of the state. National park visits through the summer of 1989 bounced back to levels established in 1987.

Wyoming appears to be facing another year of relatively slow growth in 1990. Continued

improvement in the farm sector should support such growth. Moreover, the state's energy sector is poised for a boost from increased activity in the natural gas industry. And tourism will help sustain trade and services activity in parts of the state.

IV. Summary

Economic performance in the Tenth District lagged behind national economic performance again in 1989. The district's relatively slow growth reflected weakness in manufacturing, while the agricultural and energy sectors showed

marked improvement. Compared with 1988, overall economic performance of the district showed slight improvement in 1989, while the performance of individual states was mixed.

Like growth in the national economy, growth in the district is expected to be slow in 1990. The district's energy sector is likely to retain the improvement achieved in 1989. Agriculture and tourism should provide solid underpinnings for district economic performance, but continued weakness in manufacturing will likely restrain overall growth. No district state appears to be poised for especially strong economic performance in 1990.

Endnotes

¹ This article's assessment of 1989 Tenth District economic performance uses the most recent data available at the time of writing. In some cases, such as employment, preliminary data for the third quarter were available. In some other cases, data were not as recent.

² Discussions of employment growth in this article are based on growth for 1988, calculated from the fourth quarter of 1987 to the fourth quarter of 1988, and growth for 1989, calculated as the annual rate of growth from the fourth quarter of 1988 to the third quarter of 1989. The employment data are from the Bureau of Labor Statistics Current Employment Statistics program, seasonally adjusted at the Federal Reserve Bank of Kansas City.

³ Discussions of income growth in this article are based on growth for 1988, calculated from the fourth quarter of 1987 to the fourth quarter of 1988, and growth for 1989, calculated as the annual rate of growth from the fourth quarter of 1988 to the second quarter of 1989. The income data are seasonally adjusted real personal income data from Data Resources, Inc.

⁴ Fabricius and others, 1989. Balances in 1989 were more than one percentage point higher than in 1988 in Kansas and Nebraska; about the same in Colorado, Missouri, and Oklahoma; and more than one percentage point lower in New Mexico and Wyoming.

⁵ Fabricius and others, 1989.

References

Fabricius, Martha A., Steven D. Gold, and Corina L. Eckl. 1989. "State Budget Actions in 1989." *Legislative Finance*

Paper no. 69, Fiscal Affairs Program, National Conference of State Legislatures, September, Table 1