A New Vision of the Heartland: THE GREAT PLAINS IN TRANSITION

The Changing Great Plains Economy: New Directions

for Economic Policy

Prepared for the Center for the New West Denver, Colorado

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THE CHANGING GREAT PLAINS ECONOMY: NEW DIRECTIONS FOR ECONOMIC POLICY

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The views expressed here are strictly those of the authors and do not necessarily reflect those of the Federal Reserve Bank of Kansas City or the Federal Reserve System. The authors wish to thank Tim Sheesley, an assistant economist at the bank, for his diligent assistance. The Great Plains economy slowed considerably during the 1980s. Two broad gauges of the region's economic performance--income growth and employment growth--both fell as the region adjusted to problems in its key economic sectors--agriculture, mining, and manufacturing. Other regions also slowed during the 1980s, but the slowdown in the Great Plains was more pronounced. As a result, this region ranked among the slowest-growing regions in the nation during the 1980s.

The economic slowdown was especially pronounced for the rural Great Plains. Economic growth slowed in both metropolitan and nonmetropolitan parts of the region in the 1980s, but the metropolitan areas--and places adjacent to metropolitan areas--fared much better than nonmetropolitan areas. In fact, metropolitan counties in the region captured 97 percent of the overall growth that did occur in the Great Plains in the 1980s. Moreover, the poor performance in nonmetropolitan areas was not spread evenly across places with different economic bases. For example, natural resource based rural counties fared much worse during the 1980s than those based on retirement.

Following weak economic growth in the 1980s, policymakers in the region face many challenges as they consider policies that would improve economic prospects in the 1990s. Three challenges stand out: a widening economic gap between urban and rural places in the region, the need to help people and infrastructure as they adjust to new economic realities, and the need to diversify the region's economic base, a need felt most acutely in the rural Great Plains.

This paper examines the economic changes at work in the Great Plains. The first section documents a number of trends that swept the region in the 1980s, with special emphasis on the relative performance of its rural and urban parts. The second section considers the implications of the those trends for economic policy. The article concludes that the region must face up to an enormous transition problem for some of its people and infrastructure while encouraging development that adds value to the region's abundant natural resources.

THE GREAT PLAINS ECONOMY IN THE 1980s

The Great Plains economy encountered an economic slump in the 1980s. In this paper, Great Plains is defined as the region stretching roughly between I-25 along the front range of the Rockies and I-35 from Minneapolis to San Antonio (Figure 1). The Great Plains will be compared with the eight Commerce Department regions of the nation (Figure 2). Key industries in the Great Plains' economy--agriculture, energy, and manufacturing--underwent dramatic downsizing and structural change. As a result, economic growth across the Great Plains was much slower than in the 1970s, and on average, trailed well behind growth in the nation.

Broad indicators of economic performance

The slowing in the Great Plains region is reflected in broad indicators of the region's economic performance. Real income growth, one key indicator of the region's overall pace of economic growth, slowed from 4.2 percent in the 1970s to 2.0 percent in the 1980s (Chart 1). Employment growth, another indicator of the region's economic performance, slowed from 2.9 percent in the 1970s to 1.7 percent in the 1980s (Chart 2). Of course, decade-long averages obscure the year-to-year variation in growth. Most notable is a modest rebound in income and employment growth at the end of the 1980s resulting from a strong recovery in agriculture and a more stable energy sector. Broad economic indicators also mask

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variations in economic performance across individual states and specific localities within the region, but they provide a benchmark for comparing the average performance of the region with the average performance of other regions.

Economic growth in the Great Plains lagged considerably behind economic growth in most other regions of the United States during the 1980s. Chart 1 ranks the eight standard Commerce Department regions and the Great Plains according to average income growth during the 1980s. Income growth in the Great Plains exceeded only two other regions--the Plains and the Great Lakes. Chart 2, which ranks the regions according to average employment growth during the 1980s, tells a similar story. Job growth in the Great Plains lagged most other regions. Only three regions--the Mid East, the Plains, and the Great Lakes--posted slower job growth during the decade.

Urban and rural growth

The lackluster performance of the Great Plains region during the 1980s is often linked to the slowing in its rural economy. Few would disagree that the region has a distinct rural character compared to most other regions. Yet 70 percent of the region's population resides in metropolitan counties. Therefore, it is important to look at both urban and rural growth to further understand the recent economic performance of the Great Plains.

Economic growth in the nonmetropolitan counties of the Great Plains was much slower than growth in metropolitan counties. But this divergence in urban and rural performance was not unique to the Great Plains. In virtually every region of the country, nonmetro counties had slower economic growth than metro areas in the 1980s (Charts 3 and 4). New England was the lone exception. In the remaining seven Commerce Department

regions and the Great Plains, rural growth in real income and employment underperformed both metropolitan areas within the region and the national average. Rural counties in the central regions of the nation--including the Great Plains--performed worst. In contrast with rapid rural growth in New England, for example, rural counties in the Great Plains saw their incomes and job ranks grow by only 0.3 percent.

Although the urban Great Plains outperformed the rural Great Plains in the 1980s, urban economic growth in the Great Plains was slow by comparison with most other regions of the country. The 2.6 percent growth in urban income in the Great Plains exceeded only three other regions, the Rocky Mountains, the Great Lakes, and the Plains (which includes the Great Plains). And the 2.3 percent growth in urban employment exceeded only three other regions, the Plains, Great Lakes, and Middle East. Thus, with the exception of the Middle East, the overlapping central regions were at the lower end of the regional distribution of urban growth in the 1980s.

The divergence between rural and metro growth stands in sharper relief when shown as a ratio. The rural-urban income ratio, for example, represents rural income growth as a proportion of metro income growth (Chart 5). When the ratio is 1, rural growth just matches urban growth. For the nation as a whole, the income ratio was 0.6. in the 1980s, suggesting rural places grew roughly half as fast a urban places. By contrast, rural places outpaced urban places in the 1970s, when the ratio was 1.4.

The income ratios point to striking differences across regions. In the Great Plains, a dollar of income in urban counties was matched by an average of only \$.12 in rural counties. By contrast, income growth of a dollar in urban New England during the 1980s

was matched by an average \$1.08 in rural New England. New England was the only region where rural incomes grew faster than urban incomes. In the 1970s, however, rural incomes grew faster than urban incomes in every region except the Southwest, Rocky Mountains, and Great Plains (which largely overlaps the other two lagging regions).

Rural proximity to metropolitan areas

The rural Great Plains posted lackluster performance in the 1980, but clearly not all rural places are alike. Some rural communities serve as bedroom communities to thriving metropolitan areas. Others are isolated with no population centers.

Rural is a term that is often defined in terms of not being urban. The difficulty comes in deciphering how far economic influence extends from a metropolitan area. To address this spatial uncertainty, a demographer with the U.S. Department of Agriculture developed a series of ten categories to define the spectrum of counties from core metropolitan to absolutely rural (Table 1). Beale codes separate metro counties into those in the center of large Metropolitan Statistical Areas (MSAs) and those on the fringe. The codes also identify which nonmetro counties are adjacent to MSAs and which are not. The result is a useful taxonomy with central core MSA counties classified as 0 and completely rural counties classified as 9. In between lies a spectrum that gauges proximity to an MSA.

When rural counties in the Great Plains are grouped according to their respective Beale codes and then economic growth rates are compared, an unmistakable trend emerges in the 1980s. Growth declined--in nearly straight-line fashion--as the distance from a metropolitan area increased. With income growth, for instance, the four metropolitan county codes (0 to 3) had the strongest growth and three of the four county codes in this

group matched or exceeded the nation's growth in the 1980s (Chart 6). Meanwhile, counties *adjacent* to metropolitan areas (codes 4, 6, and 8) outperformed counties that were *nonadjacent*. Counties that were not next to metropolitan areas (codes 5, 7, and 9) ranked dead last in terms of growth in real income. And within the nonadjacent group, counties with larger population centers outperformed completely rural counties. Exactly the same story holds for employment growth (Chart 7). Moreover, this pattern of growth in the Great Plains parallels the pattern for the nation during the 1980s.

A simple but stark conclusion arises from these data: economic growth in the Great Plains (and elsewhere in the nation) is migrating to the cities. Such was not the case in the 1970s, but that decade looks increasingly like an aberration. And while growth in these metropolitan areas may be strongest in suburbia and, in some cases, exurbia, economic growth in MSAs far exceeds growth in completely rural places. Indeed, Charts 8 and 9 show that metropolitan counties accounted for almost all of the region's new income and jobs in the 1980s. Moreover, if you were a resident of the rural Great Plains in the 1980s, the record shows that it was generally better to live in a county next to an MSA in the 1980s than in any other rural place in region.

Economic bases and rural growth

The rural Great Plains derives its economic growth from a variety of economic bases. The number of counties and their shares of population are shown in Table 2. The rural county categories are based on those developed by the Economic Research Service (Hady and Ross). The categories have been modified to make each county type mutually exclusive of the others. The largest number of rural counties in the Great Plains are farming

counties. In fact, the Great Plains contains nearly three-fourths of the nation's farmdependent counties. Nevertheless, most of the Great Plains rural population resides in trade counties. The share of rural population in farming counties fell from 32 percent to 28 percent between 1969 and 1989 while trade and other types of counties gained share or were stable.

Surveying economic growth in the rural Great Plains across different types of economic bases offers useful insights into the rural slowdown of the 1980s. Charts 10 and 11 show growth in real personal income and employment for eight different rural economic bases. The performance data do *not* measure the performance of the different industries themselves. Rather, they indicate the performance of rural places *dependent* on such industries.

Retirement and mixed counties were the fastest growing rural economic bases in the Great Plains during the 1980s. These two county types were also the fastest growing rural categories in the nation as a whole. Despite their strong performance among other types of rural counties, retirement and mixed counties (which have a diverse economic base) failed to keep pace with metropolitan counties. Growth in both jobs and incomes in these rural counties lagged well behind metropolitan counties in the Great Plains.

Both retirement and mixed counties can be viewed as emerging trade centers in the rural Great Plains, places that tapped into the growing U.S. service sector. Retirement counties thrived on transfer payments and a proliferation of services in the past decade. Retirement counties benefitted from growth in health care and financial services. Mixed counties, by becoming hubs for rural trade, experienced growth in a wide range of services.

Meanwhile, rural counties in the Great Plains dependent on industries that compete in global markets ranked last in economic performance. Income in farm-dependent and mining-dependent counties *declined* on average during the 1980s. (Employment fell in farming counties and edged up slightly in mining counties.) Agriculture and energy clearly underwent dramatic change in the 1980s due to the pressures of global competition. Manufacturing-dependent counties--where a much smaller share of the Great Plains rural population resides than in the nation (27 percent in the nation compared with only 5 percent in the Great Plains)--also did poorly, but their modest growth compared favorably to the income and job losses in the two county types dependent on natural resources.

Decade-long averages may overlook a possible rural recovery in recent years. Farmdependent counties, for example, have been buoyed by a strong farm recovery. Yet annual data since 1987 suggest that even record farm incomes did not lead to a widespread rebound in economic activity in those counties. Anecdotal evidence from the seven-state 10th Federal Reserve District, for example, suggest that structural change in agriculture has led to fewer farms, fewer agribusinesses, and a weaker economic multiplier in farm communities. Economic activity appears to be migrating to farm trade centers that are prospering at the expense of surrounding communities.

THE CHALLENGES FOR GREAT PLAINS POLICYMAKERS

The economic trends discussed above pose clear challenges to the region's governors and public officials. Three challenges will prove especially difficult: addressing or accepting the widening gap between urban and rural economic growth, easing the economic transition for the region's population and infrastructure, and broadening the region's economic base,

especially in rural areas where economic activity remains heavily tied to natural resources. The widening gap in rural and urban economic performance

The Great Plains is commonly thought to be a predominantly rural region. While it has wide open spaces aplenty, only thirty percent of the region's population now lives in nonmetropolitan counties. The urban economy of the Great Plains slowed in the 1980s, but incomes and jobs in the region's metropolitan counties still grew roughly 2.5 percent a year.

But the economy of the *rural* Great Plains was largely left behind in the 1980s. For every \$1 of new income in Sioux Falls, rural incomes grew only 12 cents. Hurt by its overwhelming dependance on agriculture and energy, the rural Great Plains found no engine of growth in the 1980s.

What, if anything, can be done about the widening gap in economic performance between rural and urban places in the region? Rural development will vex policymakers throughout the nation in the 1990s, but two things seem necessary to close the rural-urban gap.

Improving rural education seems a logical first step. The gap in rural and urban human capital appears to have widened in the 1980s. One study estimated that, nationwide, nonmetro areas lost 2 percent of their college educated adults a year in the 1980s (Bawden and Brown). Lagging far behind in economic performance in the 1980s, the rural Great Plains almost surely shared in this exodus. The net result is a lower skilled work force in rural areas.

The need for bolstering rural education is plain, but the funding sources to make the improvements are much less clear. The 1980s produced falling populations and falling asset

values throughout the rural Great Plains. Both create severe tax base problems for local school districts. Meanwhile, schools in many states in the region have been slow to consolidate, leaving a situation where many schools must compete for a shrinking property tax base (property taxes are the principal source of primary and secondary education in most if not all Great Plains states).

Another need will be continuing education for rural adults. Universities and colleges might be more effective in meeting the need. With extension service and a variety of community college programs, states can use universities in a variety of education channels for economic development purposes (Smith and Drabenstott).

Encouraging rural entrepreneurs must go hand and hand with better education. Improving educational attainment will do little if new jobs are not created that serve to keep workers in rural areas. In general, public policy has focused relatively little on steps that would help rural entrepreneurs establish and grow their businesses. Often, policymakers assume that providing more capital will encourage business formation in rural areas. In fact, most rural communities in the region have banks that are very liquid. Many rural community banks in the Great Plains, for example, have loan-deposit ratios below 50 percent.

What may be more beneficial is to provide technical and management assistance to rural entrepreneurs. The biggest hurdle facing many rural entrepreneurs is putting together a complete business plan and the team of resources to carry it out. Community colleges, the extension service, and small business development centers could be used more fully to provide the missing links in rural business start-ups.

Easing economic transition in the region

Regardless of how successful economic development efforts may be in the region, the legacy of the 1980s will remain for many parts of the region. Put simply, there will be many communities in the region that will not be economically viable in market realities of the 1990s. People will migrate to other places in the region, or places beyond the region. But infrastructure will be left behind: schools, roadways, and water systems, among other things. What, if anything, can public policy do to ease this painful transition?

The first task is to ease the human transition. Many of the people leaving the Great Plains are rural residents that are searching for a better livelihood. These economic pilgrims often lack the skills to be quickly assimilated into the economy elsewhere. In the past, farmers often moved to factories. But in the 1990s, those job openings are no more. Instead, the job market demands more technical and analytical skills.

The answer is better retraining programs. Many of the states in the Great Plains region have extensive community college and university extension resources. These will be great assets in the retraining effort.

But public officials are asking whether the costs of retraining can be recovered if retrained workers leave the region. Their question has two answers. First, a case can be made that rural economic distress is a national problem that could justify federal involvement in rural retraining. Second, a case might be made that retraining is in the interest of Great Plains states even if workers move elsewhere. That is because the cost to the public of unemployment insurance and other social programs may more than offset the cost of retraining.

Easing the transition of public infrastructure will prove more difficult. Many states in the Great Plains will be left with critical decisions on infrastructure such as highways as well as how to deliver public services through a network of county governments that may be facing fiscal deficits. Choosing which public infrastructure to maintain will be very difficult in the Great Plains, where distance between cities is great. Nevertheless, careful comparisons of costs and benefits will be necessary in making investments in facilities like roadways, bridges, and water systems. New analytical techniques that utilize digital geographical information systems (GIS) hold the promise of better informed decisions (Henry, Brooks, Roche, and Singletary).

Making public service delivery more efficient and less costly in rural areas will require innovations in public policy. County governments are slow to cooperate with neighboring counties because there are few incentives to do so. State governments may want to consider making grants to counties that agree to cooperate in delivering local services. Such incentives would encourage efficiency and allow duplicate facilities to be phased out.

In general, there will be value in Great Plains governments cooperating more fully in the future to provide public services more efficiently. That includes shared goals in universities and physical infrastructure, such as roads and transportation systems. With limited resources, the region will have a better chance to achieve excellence if it cooperates more than in the past (Fosler).

Broadening the rural economic base

The cities of the Great Plains are already well along in broadening their economic

bases. The time is long past when cities such as Omaha and Denver depended heavily on agriculture and energy. But the rural Great Plains remain tied to natural resource industries. Of the region's rural population, 28 percent live in counties that depend on agriculture while 5 percent live in mining-dependent counties (Table 2). For the U.S. rural population, the corresponding figures are 6 percent and 4 percent, respectively. Thus, the rural Great Plains is more than 3 times more dependent on agriculture and mining than the rest of rural America. Meanwhile, only 5 percent of the region's rural population live in counties dependent on manufacturing compared with 27 percent for rural America.

To improve economic prospects in the rural Great Plains, it will be necessary to broaden the economic base. In the 1990s, both agriculture and energy will remain commodity industries driven by international markets. In both cases, Great Plains producers will probably operate on thin margins.

The key will be to add more value to the region's resources before products leave the region. For agriculture, adding value will require attracting more food processing or exploring new industrial uses for agricultural commodities. The food processing strategy is being promoted in many states: Nebraska, Kansas, and Iowa, in particular. But the prospects for the region appear mixed. Those three states seem to be in a good position, while northern Plains states face a tougher challenge because they are so far from major consumer markets (Barkema and Drabenstott).

In energy, the region seems to have few options in adding value. The region has large reserves of natural gas, and production could rise if environmental concerns raise the demand for natural gas, a fuel which burns cleanly. The region also has large deposits of

low-sulfur coal; production is increasing steadily and could increase even more rapidly if the nation tries to limit the burning of high-sulfur coal. Finally, the region might find some of its agricultural products in greater demand if the nation chooses to encourage fuels from biomass, such as ethanol.

It will be difficult for the Great Plains to encourage wide-scale development of rural manufacturing. In the past, rural manufacturing has failed to become dominant in the region because it is far from final markets. That disadvantage will continue. In addition, labor may remain cheaper in many other countries, particularly in Mexico if a North American Free Trade Agreement is signed.

CONCLUSION

The Great Plains economy slowed sharply in the 1980s. Compared with other regions of the country, the Great Plains was one of the slowest growing portions of the country. The decade was marked by a widening gap between rural and urban places in the region. With diverse economic bases, cities in the region maintained solid, steady growth in the 1980s. But the rural Great Plains remains heavily dependent on agriculture and energy, and fared poorly in the 1980s, with little if any gains in income or employment.

These economic trends pose stiff challenges for the region's public officials in the decade ahead. To close the gap between rural and urban economic performance, public policy will need to improve rural education while assisting rural entrepreneurs. To help rural people and rural infrastructure adjust to the economic trends underway, public policy will need to provide better retraining programs and innovative programs to encourage more efficient delivery of public services. To broaden the rural economic base of the region, new

ways will need to be found to add value to the region's abundant base of natural resources. In particular, value could be added to Great Plains agricultural products either through food processing or new industrial uses.

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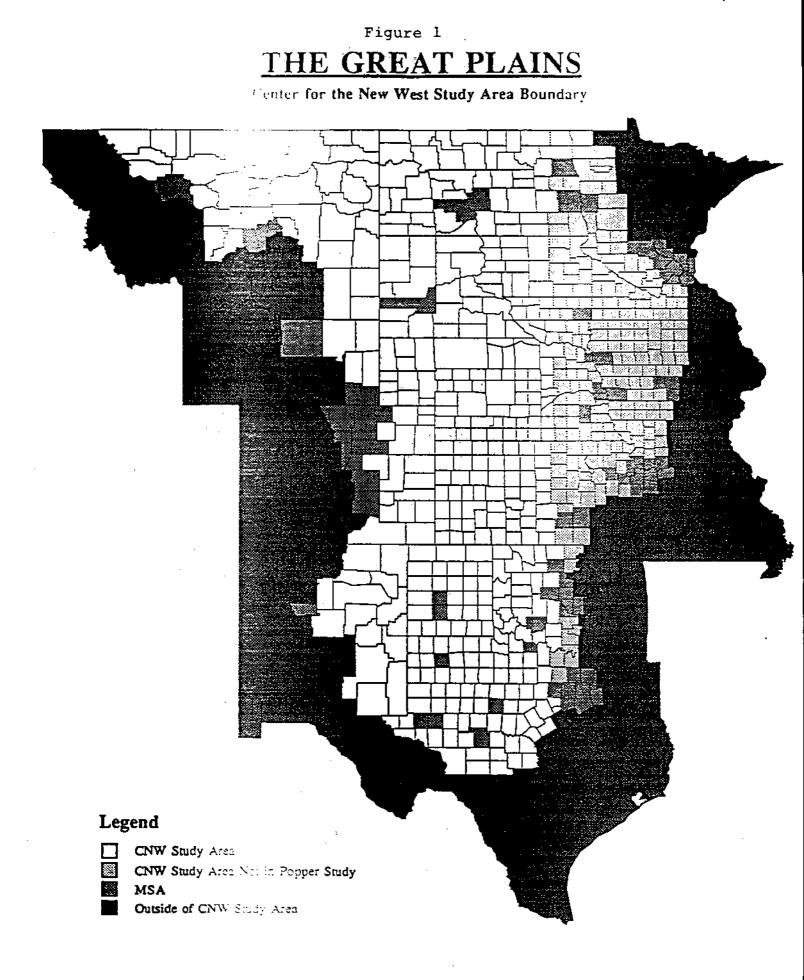


Figure 2 U.S. Economic Regions

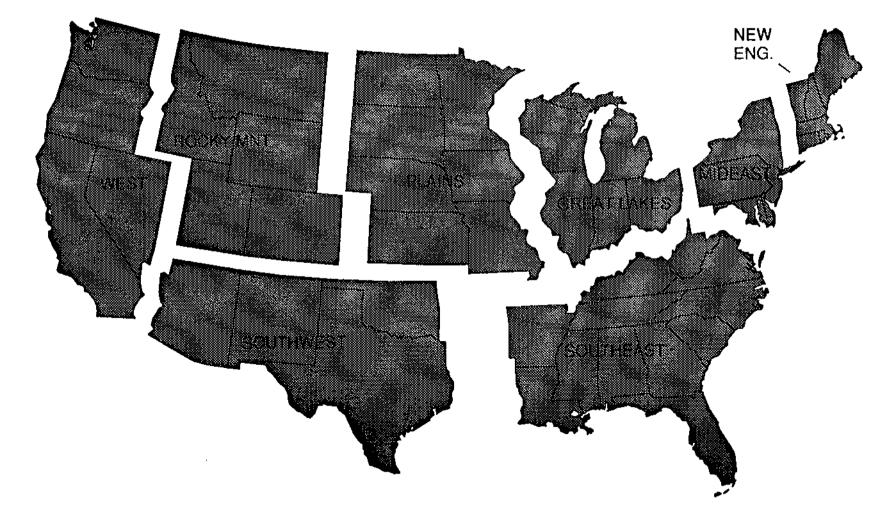


Table 1

Beale Code Definitions

CODE

METROPOLITAN COUNTIES

0	Central counties of metropolitan areas of 1 million population or more							
1	Fringe counties of metropolitan areas of 1 million population or more							
2	Counties in metropolitan areas of 250,000 - 1,000,000 population							
3	Counties in metropolitan areas of less than 250,000 population							
	NONMETROPOLITAN COUNTIES							

Urban population of 20,000 or more, adjacent to a metropolitan area 4 Urban population of 20,000 or more, not adjacent to a metropolitan area 5 Urban population of 2,500-19,999, adjacent to a metropolitan area 6 Urban population of 2,500-19,999, not adjacent to a metropolitan area 7 Completely rural (no places with a population of 2,500 or more), adjacent 8 to a metropolitan area Completely rural (no places with a population of 2,500 or more), not

9 adjacent to a metropolitan area

Source: Economic Research Service, U.S. Department of Agriculture.

Table 2 Population Statistics Great Plains

	Number of	Share of population 1969	Share of population 1979	Share of population 1989	Share of rural population 1969	Share of rural population 1979	Share of rural population 1989
	Counties	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)	(Percent)
Metropolitan	80	64	66	70			
Nonmetropolitan	595	36	34	30	100	100	100
Farming	306	12	10	8	32	30	28
Government	37	4	4	3	10	11	11
Manufacturing	16	2	2	2	5	5	5
Mining	24	2	2	1	4	5	5
Mixed	25	1	1	1	3	3	3
Other	2	0	0	0	0	0	0
Retirement	19	2	2	1	4	5	5
Trade	166	15	14	13	41	42	43

Total

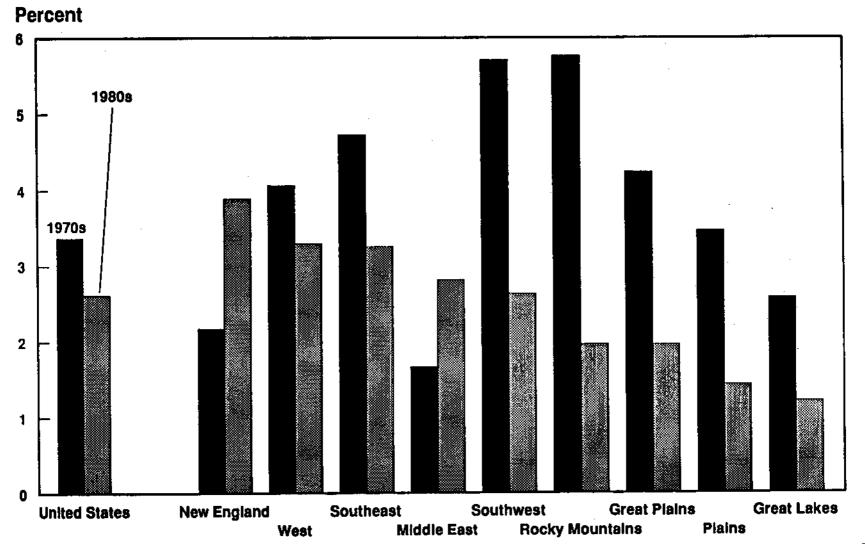
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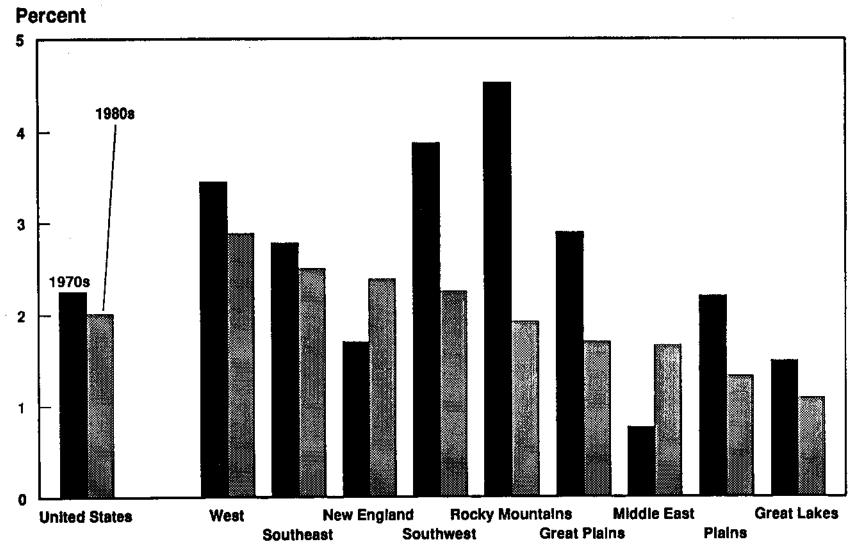
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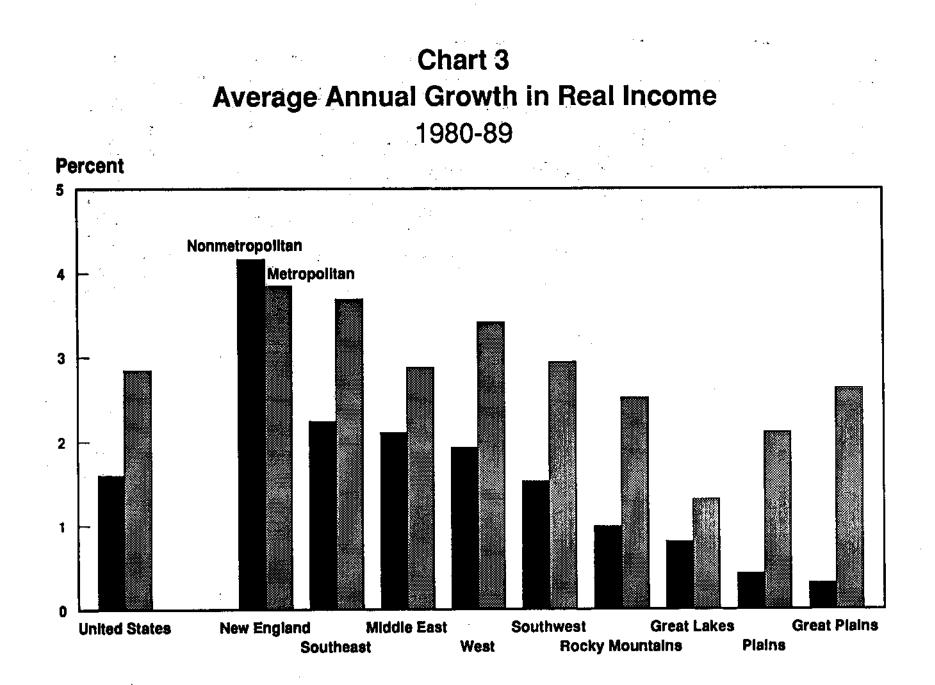


Chart 4 Average Annual Growth in Employment 1980-89

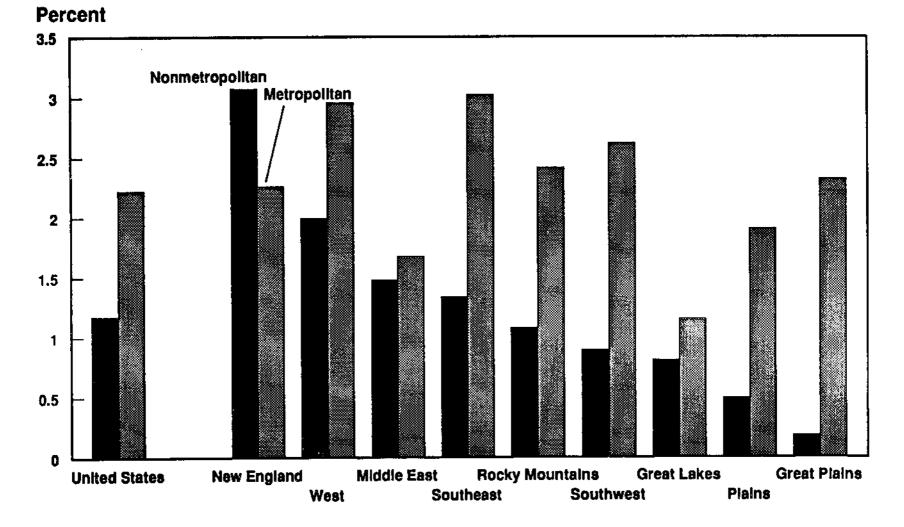
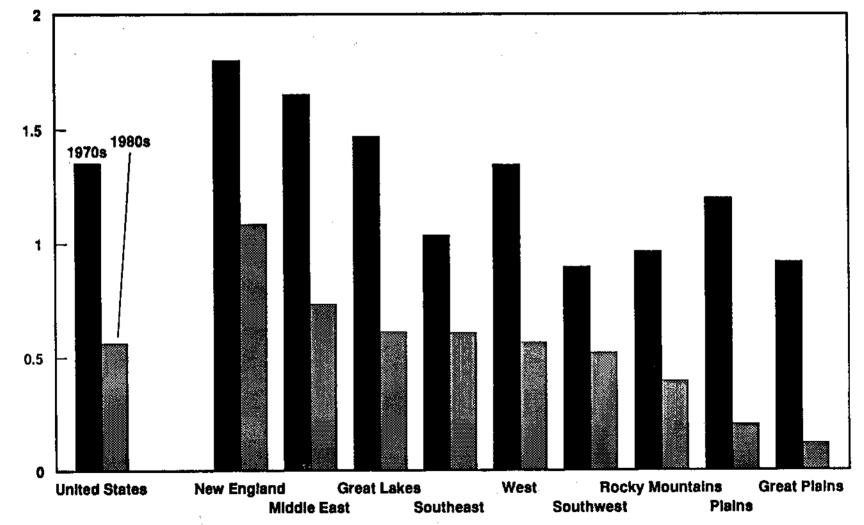


Chart 5 Rural-Urban Income Ratio

Ratio: Rural Growth / Urban Growth





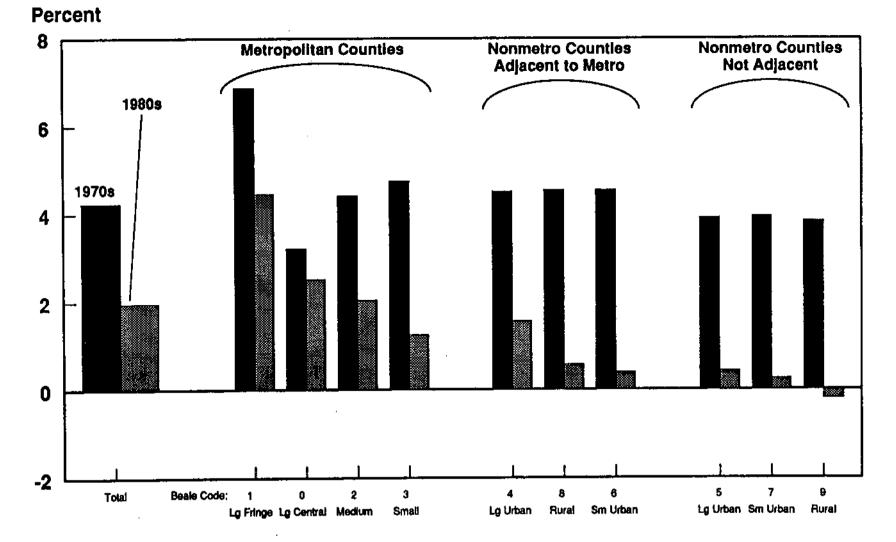
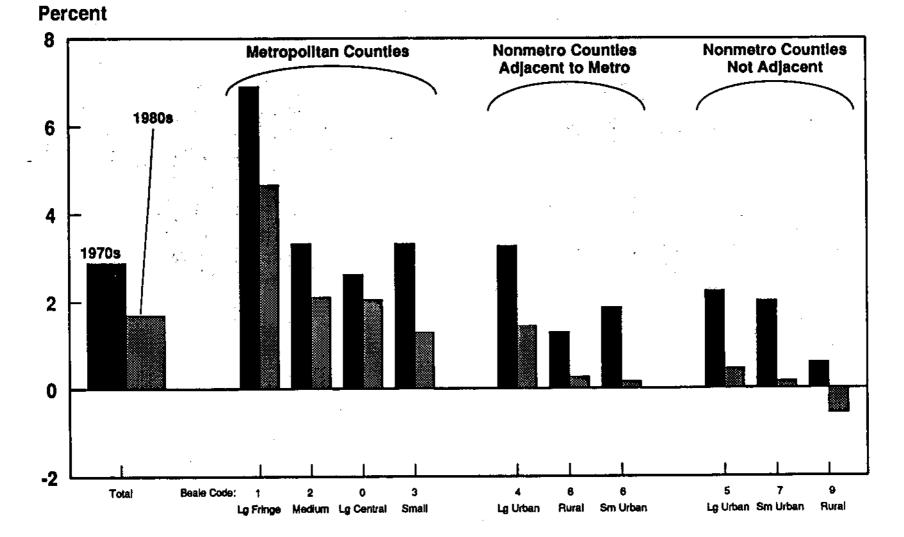


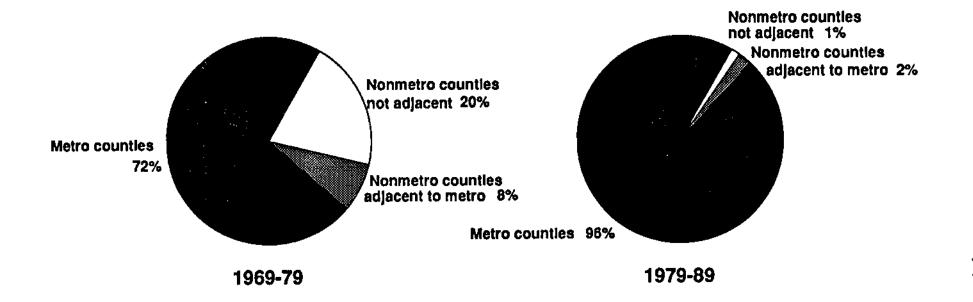
Chart 7 Employment Growth by Beale Code, Great Plains



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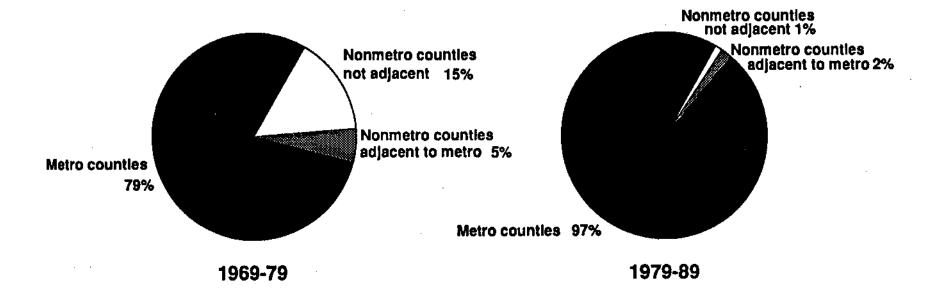
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Chart 8 Share of Income growth, Great Plains





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Chart 10 Real Income Growth by County Type, Great Plains

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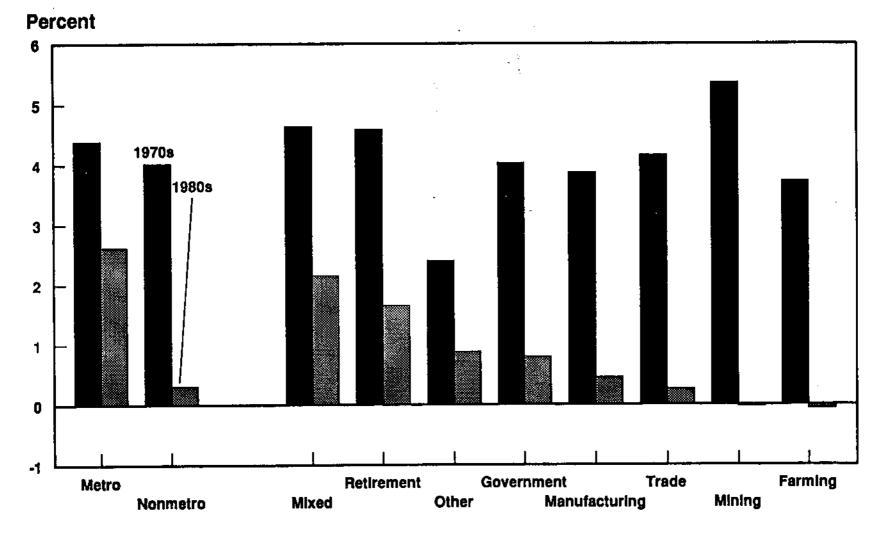
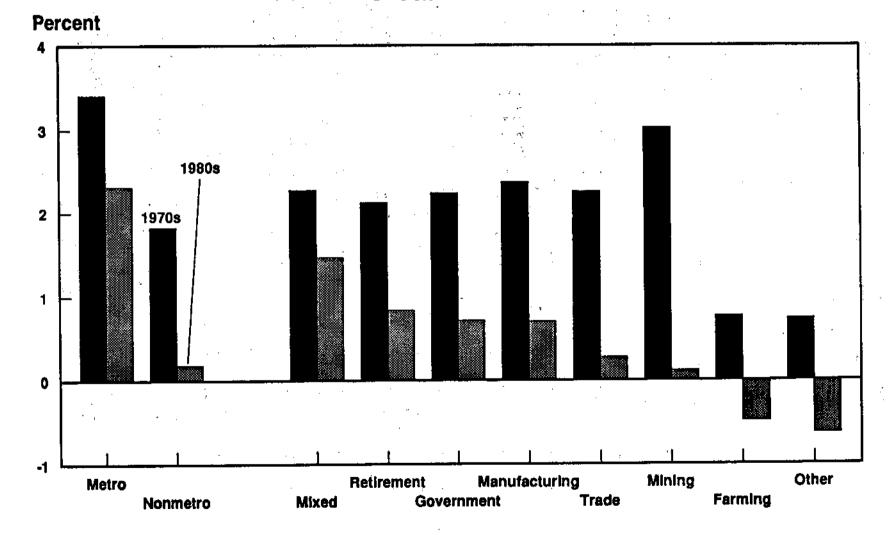


Chart 11 Employment Growth by County Type, Great Plains





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Great Plains Special Studies and Papers

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