

**Pennsylvania's**

**Rural**

**Economy:**



**An Analysis**

**of Recent**

**Trends**

PENNSSTATE



College of Agricultural Sciences  
Agricultural Research and  
Cooperative Extension

## Introduction

The remarkable national economic expansion of the 1990s is well documented. During the decade, the United States created more jobs than it ever has in a ten-year period, with total employment increasing 19.9 percent between 1990 and 2000. At the same time, unemployment rates approached near-record lows, poverty rates declined, and household incomes climbed.

Pennsylvania's economy also performed well during the decade. Between 1990 and 2000, the state's economy added more than 600,000 jobs, a 10 percent increase. And, like the United States, most economic indicators showed great improvement for the Commonwealth—for example, the state's unemployment rate stood at 4.3 percent at the end of the decade, compared to 5.0 percent in 1990.

While the state displayed robust performance overall, unfortunately not all industries and not all regions benefited. Over the decade, traditional sectors continued to decline, while growth in the service- and technology-based sectors that make up the “new economy” helped fuel the boom.

Regional growth patterns also varied. Much of the state's rapid growth occurred in the southeast, while many northern tier and western counties grew slowly, if at all. It has been suggested that these trends reflect an increased disparity between rural and urban Pennsylvania.

This publication closely examines Pennsylvania's rural economy<sup>1</sup>, paying particular attention to recent trends in rural population, employment, unemployment, and earnings and income. Key findings include:

- Over the 1990s, Pennsylvania's rural population growth rate (5.8 percent) exceeded the urban rate (2.6 percent).
- Rural and urban employment growth rates over the 1990s were nearly identical.
- Rural unemployment rates have been about 1.6 percentage points higher than urban rates for each year since 1976.
- Rural earnings and income have steadily declined as a percentage of urban levels.

## About the data

This report draws on a number of state and federal data sources, including the Bureau of Economic Analysis, the Bureau of Labor Statistics, the U.S. Census Bureau, and the Pennsylvania Department of Labor and Industry. This report focuses on rural areas as a whole, rather than any specific county. If you are looking for detailed information about a particular county, Penn State provides detailed county economic profiles on the World Wide Web at <http://www.aers.psu.edu/cccd/profile.htm>. Finally, this report focuses on rural Pennsylvania. Another Penn State publication, *Road to 2002*, provides an overview of recent trends in all Pennsylvania counties. This publication is available on the Web at <http://www.aers.psu.edu/cccd>.

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<sup>1</sup> Rural counties are defined as those that are not part of a metropolitan statistical area. Based on 1990 census data, 42 of 67 Pennsylvania counties are rural.

## Population

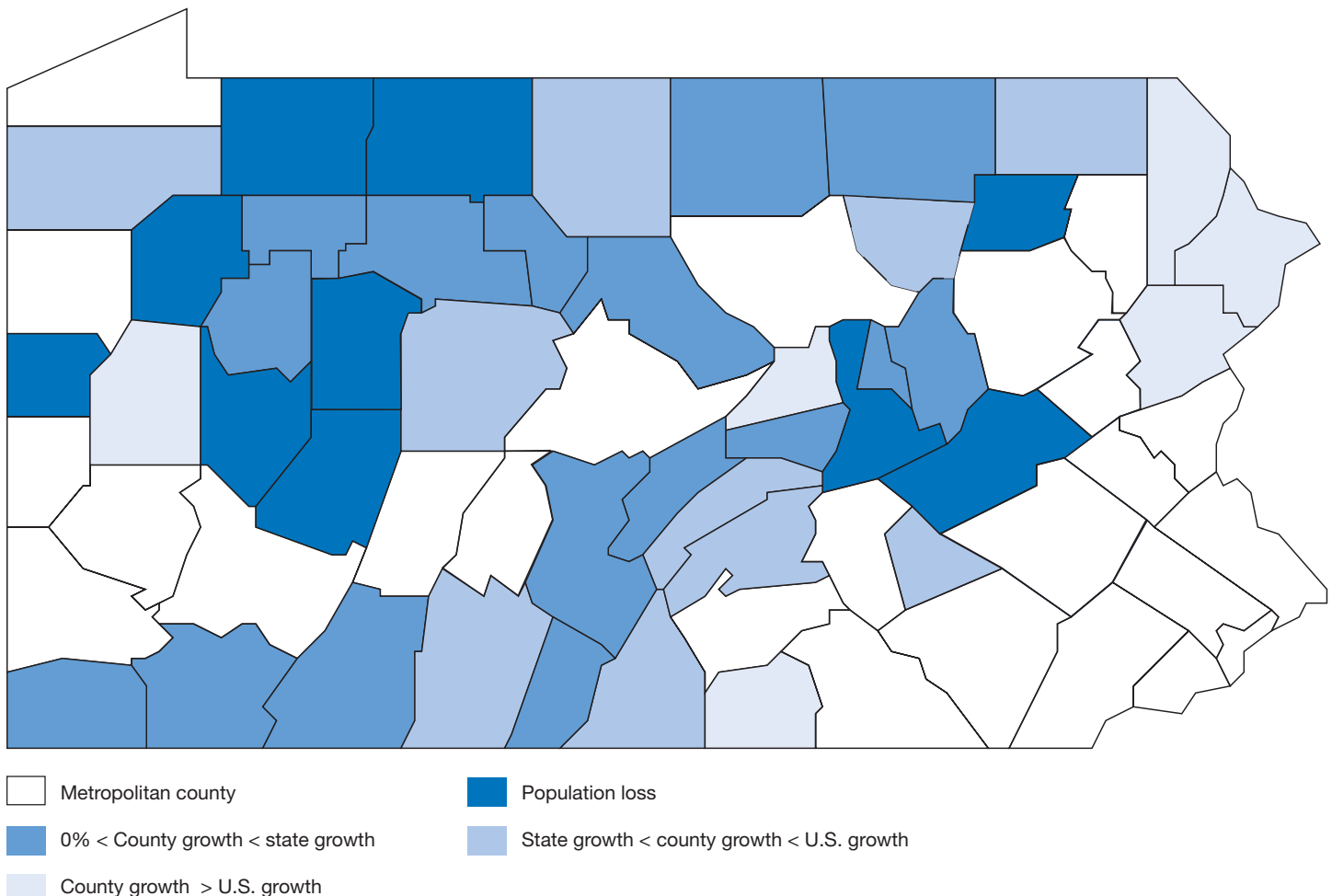
Population is an important economic indicator. In general, people are attracted to regions with strong economies because they offer job opportunities for both residents and migrants. Conversely, stagnant or declining populations often characterize weaker economies, as young residents move out to seek new employment opportunities.

According to the 2000 U.S. Census, Pennsylvania's population stands at about 12.2 million people. This represents a 3.2 percent increase over the 1990 population, a growth rate much lower than the U.S. growth rate of 12.8 percent.

In 2000, the state's rural population totaled about 2.55 million people (21 percent of the state total). Contrary to popular perceptions, population in the state's rural counties as a whole grew faster than in urban counties over the past decade (5.8 percent versus 2.6 percent). The rural counties showing the fastest growth rates—Pike, Monroe, and Wayne—are all in the northeast, reflecting an influx of new residents from New Jersey and New York (Figure 1). Many of these new residents are retirees to the Poconos, or commuters to New York City, seeking more affordable housing and a change in their quality of life.

However, not all rural counties grew in the 1990s. Indeed, 10 of Pennsylvania's 42 rural counties actually lost population during the decade. Most of the counties that experienced a population decline are located in the northwest part of the state, but some counties in the northeast also lost people.

Figure 1. Population growth rates for rural Pennsylvania: 1990–2000.



Pennsylvania growth: 3.2% U.S. growth: 12.8%

Source: U.S. Census Bureau

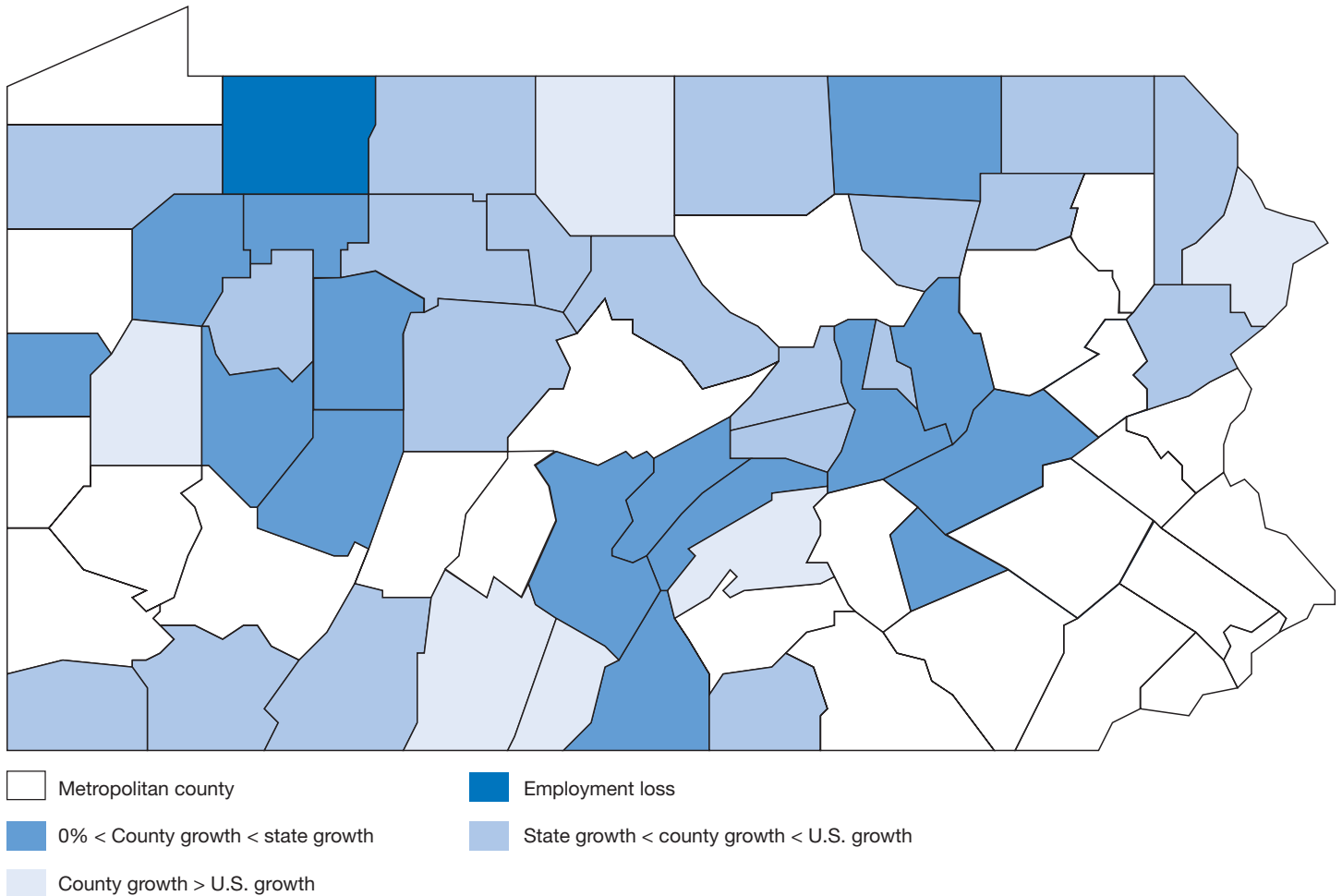
## Employment

As noted earlier, population growth is closely related to employment growth. Sometimes people move to a region to take a new job; but population growth also often creates employment growth, as new residents demand basic goods and services such as groceries, building supplies, and legal services. For this analysis, employment includes both full- and part-time workers.

In 1999, Pennsylvania had nearly 6.9 million jobs, and rural employment totaled 1.2 million jobs. Like population, the total employment growth rate was greater for rural counties as a whole than it was for urban counties (12.6 percent versus 9.5 percent) for the period 1989–99. Also, like population, we see that some individual counties grew faster than did others. Figure 2 shows that all rural counties but one added jobs over the period 1989–99. Furthermore, the growth rate of total employment in six rural counties actually exceeded the national growth rate. By comparison, only two of Pennsylvania’s urban counties experienced a total employment growth rate that exceeded the national average.

Over a longer period of time, annual employment growth rates have been quite similar in urban and rural counties (Figure 3). This suggests two things. First, aggregate economic performance has not differed all that much between urban and rural areas in Pennsylvania. Second, the state’s rural and urban employment growth rates tend to mirror national trends—the rises and dips in Figure 3 are quite similar to the historical cyclical performance of the national economy.

**Figure 2. Employment growth rates for rural Pennsylvania: 1989–99.**



Pennsylvania growth: 10.0%    U.S. growth: 19.3 %

Source: U.S. Bureau of Economic Analysis- Regional Economic Information System (BEA-REIS)

## Services, retail, and manufacturing dominate the state's rural economy

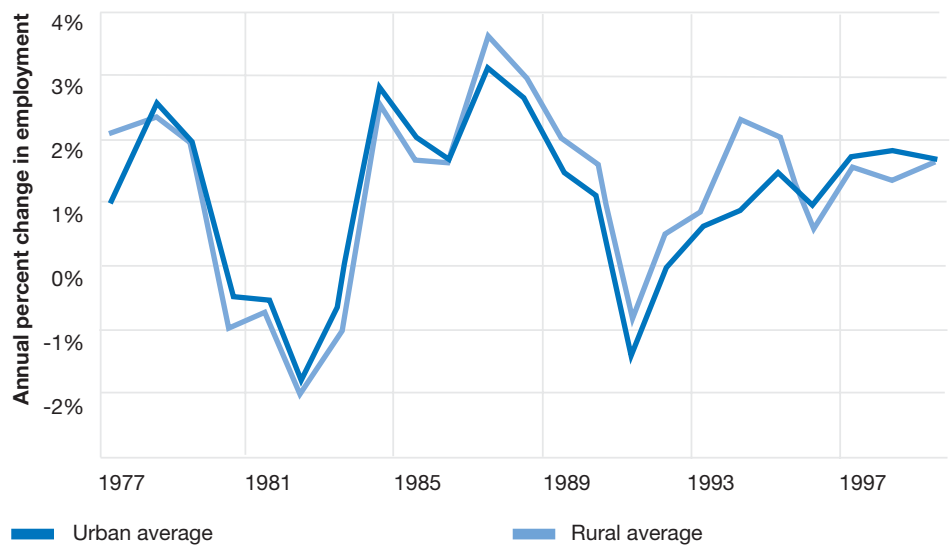
While growth patterns are fairly similar, employment differences between the state's rural and urban areas are more noticeable when looking at the distribution of employment by industry. Figure 4 shows the proportion of total employment by industry for rural and urban Pennsylvania in 1999. While the service industry is the largest employer for both rural and urban areas, urban areas are much more reliant on services than are rural areas—in Pennsylvania, the service sector provides 26 percent of all rural jobs and 35 percent of all urban jobs. (See the Appendix for a detailed breakdown of service industries.)

Retail trade is the next largest employing sector in both urban and rural areas, representing 19 percent of all rural jobs and 17 percent of all urban jobs.

Manufacturing—the third largest employing industry in the state—also shows substantial differences between rural and urban areas. In rural Pennsylvania, the sector provides 18 percent of all jobs, compared with 13 percent of all urban jobs. While manufacturing jobs are often prized as an important economic development engine, it is important to keep in mind that this industry is also the most susceptible to downturns in the national economy.

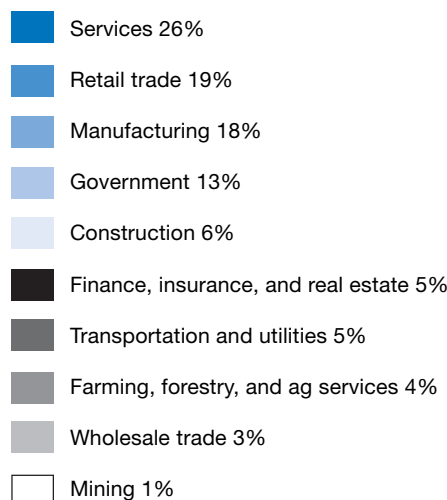
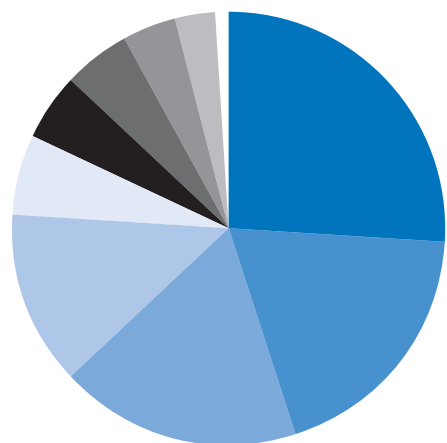
Government (state, local, and federal) is the final sector that provides at least 10 percent of rural and urban employment.

Figure 3. Rural and urban employment growth rates are similar in Pennsylvania.



Source: U.S. Bureau of Labor Statistics (BLS)

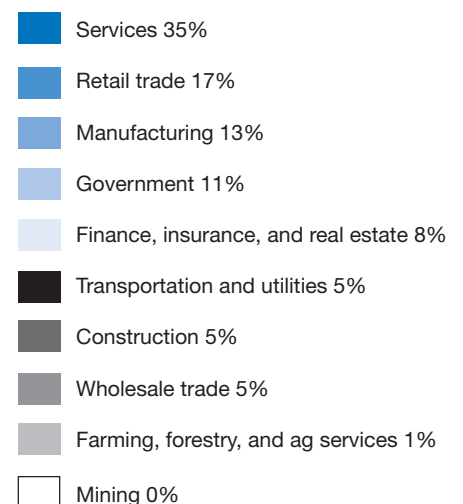
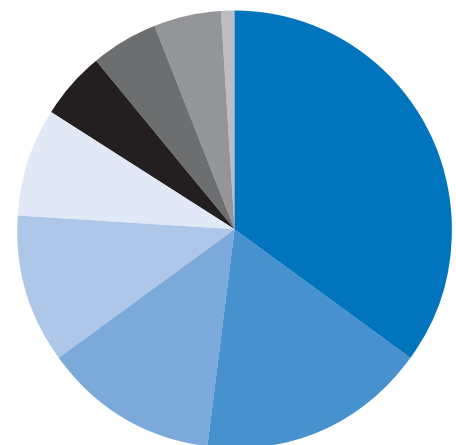
Figure 4a. Rural Pennsylvania employment by industry: 1999.



Totals may not sum to 100 percent because of rounding.

Source: BEA-REIS

Figure 4b. Urban Pennsylvania employment by industry: 1999.



Source: BEA-REIS

A closer look at the data provides a better understanding of the specific subsectors that dominate Pennsylvania's rural economy. In Figure 5, we see that health services is the largest subsector of the state's rural economy, providing nearly 94,000 jobs in 2000. The second largest subsector, educational services, provided 73,106 jobs in 2000.

The overall importance of the retail sector is witnessed in the relative rankings of eating and drinking places (third largest employer/57,309 jobs); food stores (fifth largest employer/26,818 jobs); and general merchandise stores (tenth largest employer/25,057 jobs).

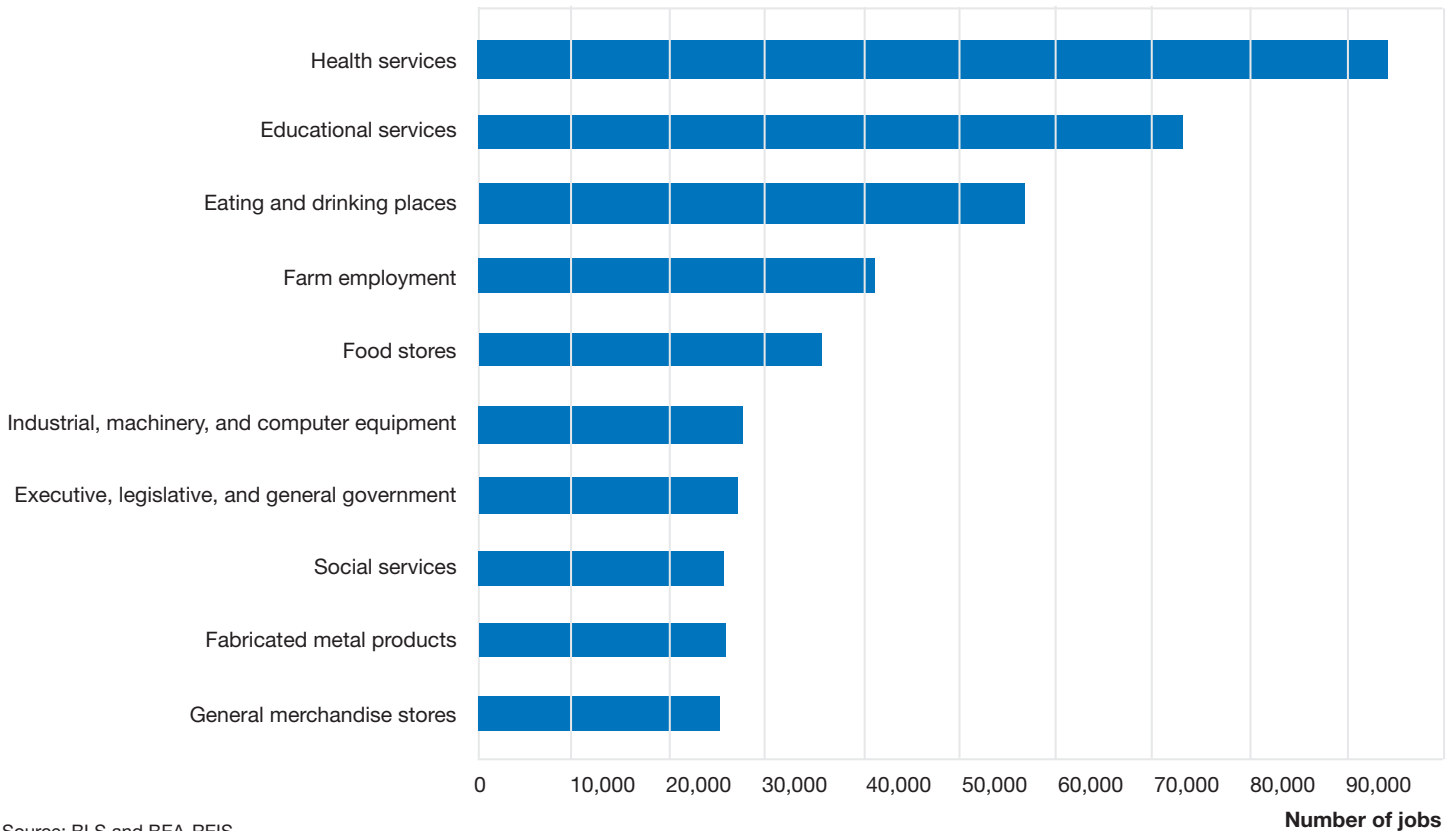
### The service sector is driving employment growth in rural Pennsylvania

During the period 1990–2000, rural Pennsylvania added more than 134,000 jobs. The largest employment gains occurred in the services and retail trade sectors, which added 48,451 jobs and 29,095 jobs respectively (Figure 6). The 12,861-job increase in local government employment is also notable.

Conversely, employment declined in three rural Pennsylvania industries: manufacturing (7,796 jobs lost), mining (5,172 jobs lost), and federal government (4,338 jobs lost).

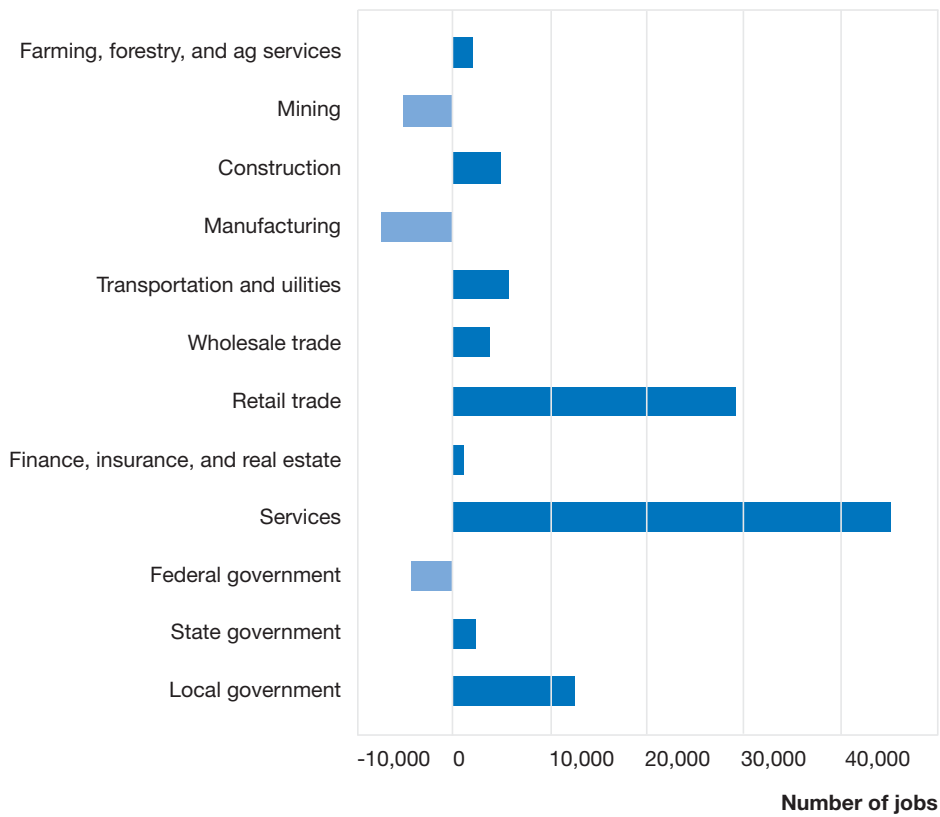
It is also informative to look at long-run trends. Figure 7 shows employment trends for three important rural industries over the past 30 years. The most striking result is the relative growth of the service industry and the relative decline of the manufacturing industry. In 1969, for example, the service industry provided 15 percent of total rural employment. As noted above, this industry now accounts for nearly 26 percent of all rural jobs. This contrasts sharply with the trends in manufacturing. In 1969, nearly one in three rural jobs was involved in the manufacturing sector. Today, this industry provides fewer than one in five rural Pennsylvania jobs. The reasons for the relative decline of manufacturing include job loss to overseas producers and increased worker productivity in the sector.

Figure 5. Top 10 employing subsectors in rural Pennsylvania: 2000.



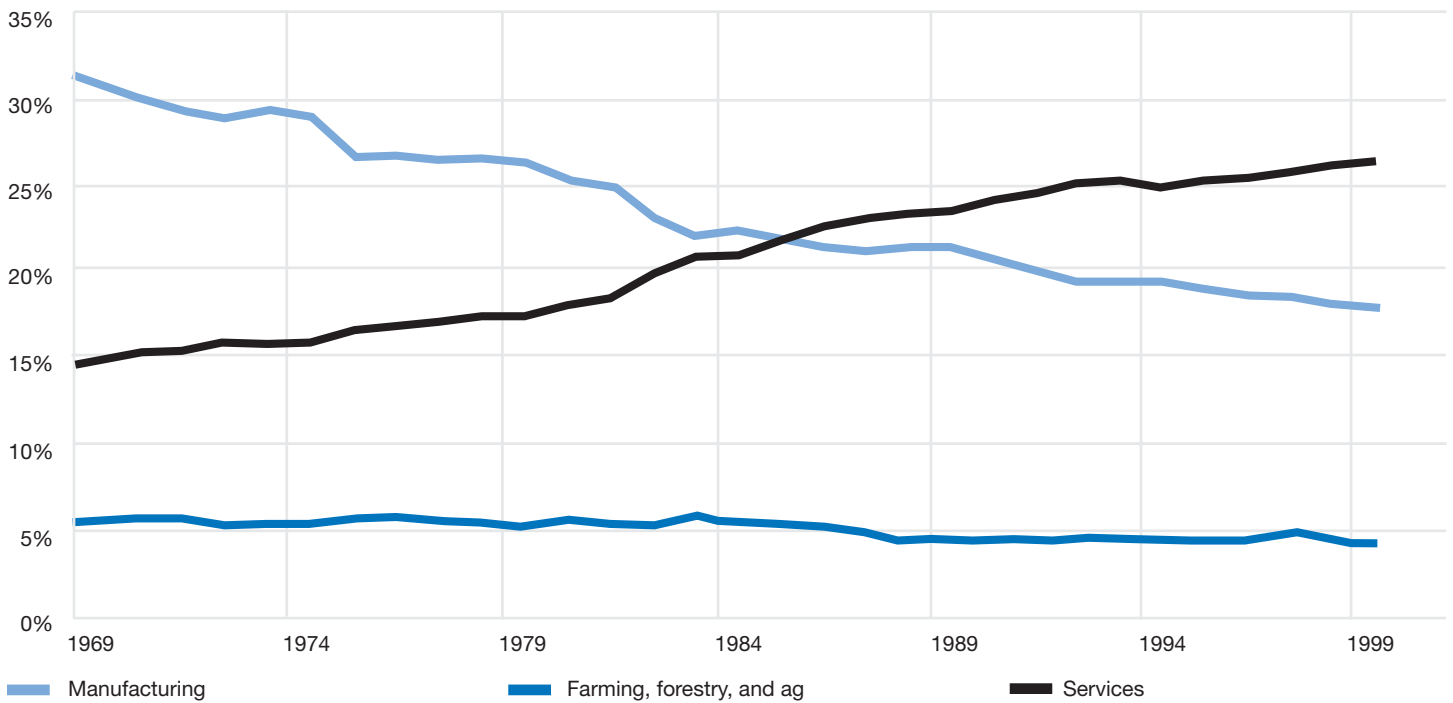
Source: BLS and BEA-REIS

**Figure 6. Rural Pennsylvania industry employment change: 1990–2000.**



Source: BLS and BEA-REIS

**Figure 7. Industry employment as a percentage of total rural Pennsylvania employment.**



Source: BEA-REIS

Agriculture, forestry, and agricultural services have been a constant economic presence, historically providing about 5 percent of all rural jobs.

A closer look at the data reveals the specific industry subsectors that have been recently adding jobs (Figure 8). For rural Pennsylvania, the largest employment gains have been registered in health services (16,196 new jobs from 1990 to 2000), educational services (10,796 new jobs) and eating and drinking places (10,035 new jobs). While most growth occurred in either services or retail, it is worth noting that two manufacturing sectors—fabricated metal and lumber and wood products—were among the top ten employment gainers in rural Pennsylvania.

Despite impressive gains in these two sectors, the manufacturing industry in rural Pennsylvania has been hit hard by job losses overall. In Figure 9, we see that manufacturing subsectors were seven of the top ten declining industries in rural Pennsylvania for the period 1990–2000. Apparel, coal mining, and textiles were among the industries hit hardest, continuing downward trends that began long ago.

### So what?

In a sense, these trends represent the transformation of the rural economy from a manufacturing-based to a service-based economy. While this transformation is often attributed to liberalized trade policies that have allowed businesses to move offshore, this argument offers only a partial explanation.

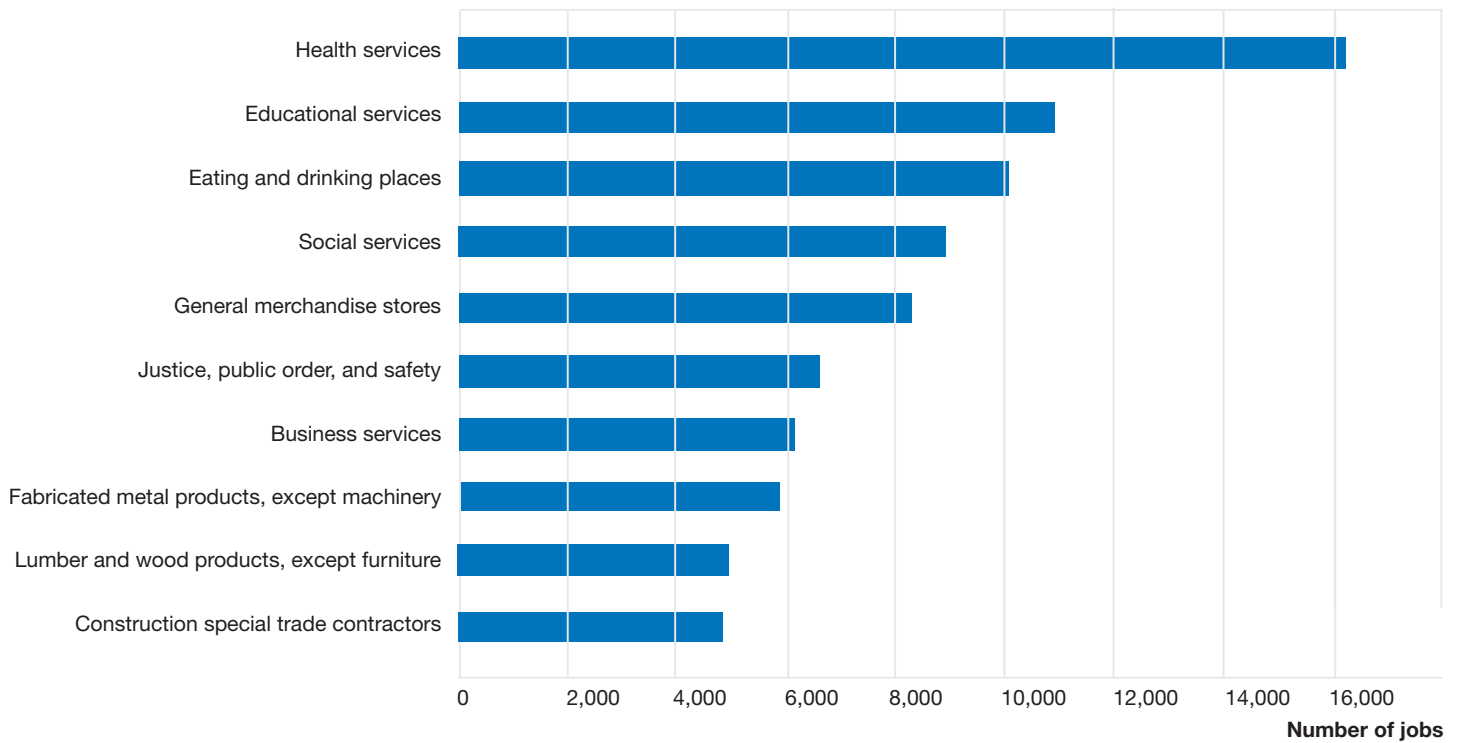
Indeed, most research shows that technological changes account for a substantially larger proportion of job losses than do free-trade agreements. As new labor-saving technologies are developed, capital (for example, new machinery) is substituted for labor in the production process. Businesses using these new technologies are able to produce the same or even more output with fewer workers. For example, Pennsylvania is still one of the world's leading steel producers, but modern steel production processes require far fewer workers for equivalent amounts of output, so the industry does not employ nearly the same number of workers that it once did.

Thus, the decline in manufacturing employment in rural Pennsylvania is not necessarily a reflection of lower output. Instead, it may signify a more productive workforce. The economic development challenge, then, is to either increase the demand for currently produced goods, or to develop new industries.

Conversely, the services industry is somewhat immune from the substitution of technology for labor. While many industries now use computers to enable one worker to do the work once done by many, technological advances more often complement service industry workers. That is, the technology enables individuals to do a better job, but the technology cannot do the job by itself.

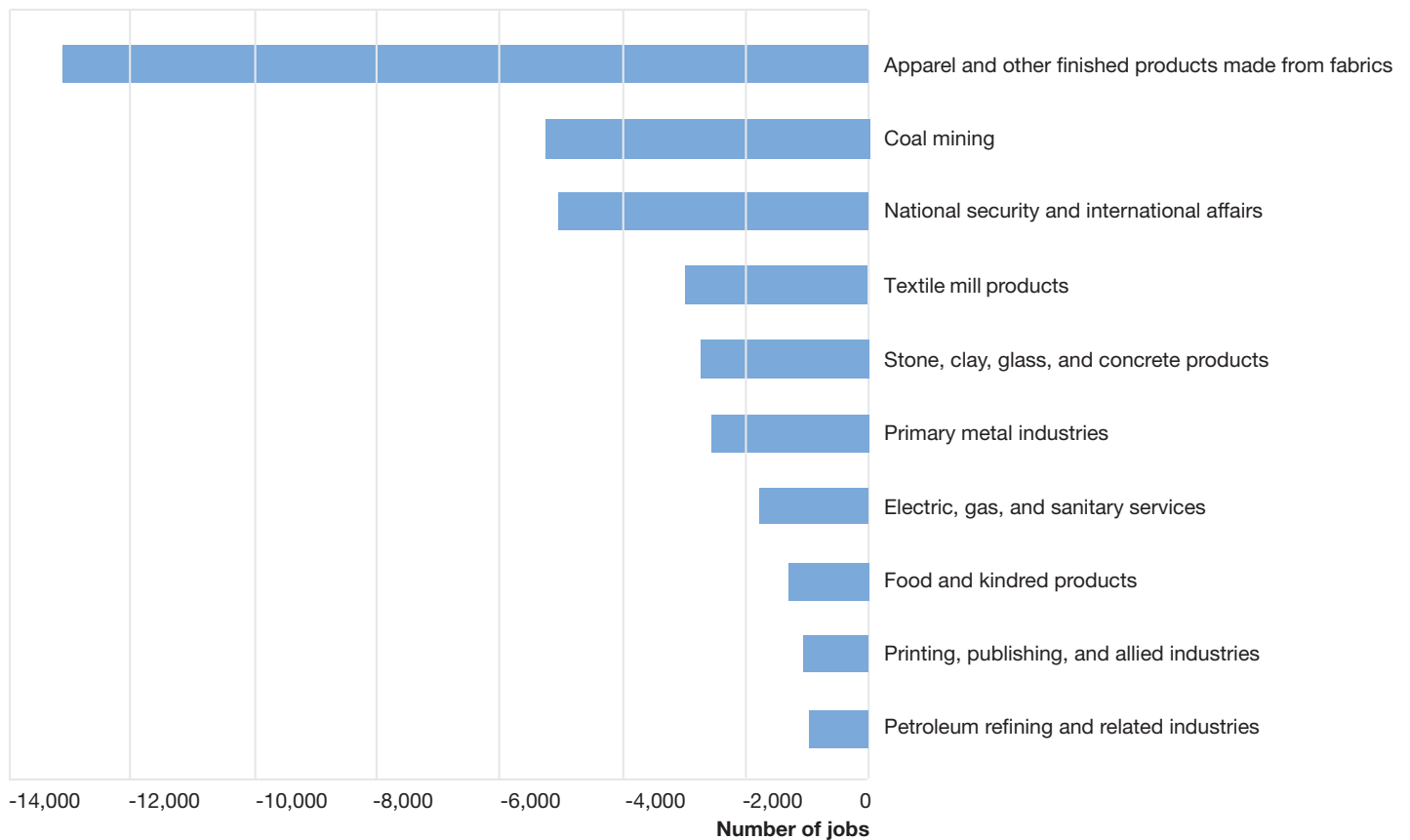
While forecasts show that the degree of this transformation may be leveling off, there are no great expectations of any significant reversal. When trying to make sense of your local economy, it is important to keep in mind that this transformation is occurring across the country, and is not unique to rural Pennsylvania.

**Figure 8. Top 10 employment gains in rural Pennsylvania: 1990–2000.**



Source: BLS and BEA-REIS

**Figure 9. Top 10 employment losses in rural Pennsylvania: 1990–2000.**



Source: BLS and BEA-REIS

## Unemployment

The unemployment rate is another important economic indicator, providing a relatively well-understood “snapshot” of the strength of the local labor market. In general, places with low unemployment rates have healthy economies—a low unemployment rate signifies that most people who want to work have been able to find jobs. (This is not always the case, however, as a low unemployment rate might signify that all of the unemployed people have moved out of the region, the sign of an unhealthy economy.)

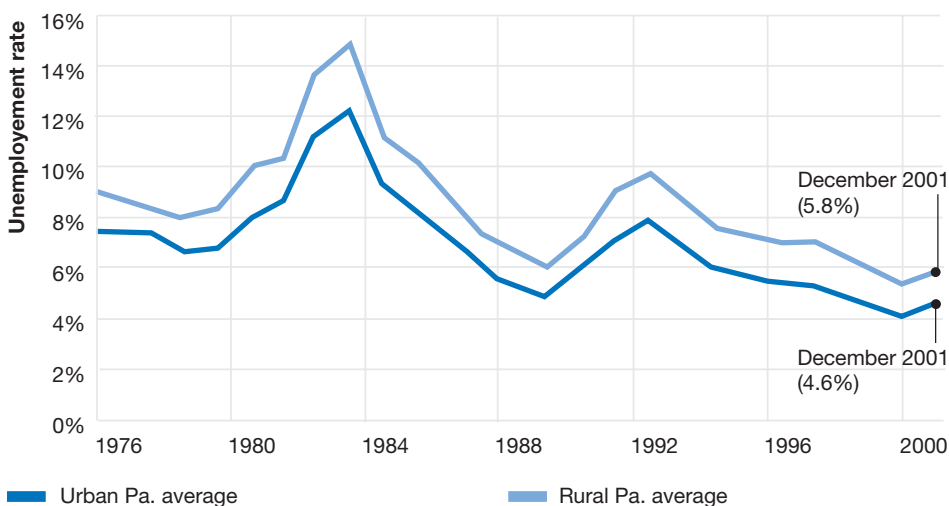
Over the past 25 years, the unemployment rate in rural Pennsylvania has fluctuated according to national business cycles. In prosperous times, rural unemployment rates are relatively low, and in times of national economic downturn, unemployment rates in rural Pennsylvania tend to move higher. This close relationship is further evidence of the linkages between the national economy and the economy of rural Pennsylvania, and suggests that national trends do indeed have important local impacts.

While the rural unemployment rate has followed the same path as the state’s urban unemployment rate, it has been consistently higher, with the gap between rural and urban rates remarkably steady at around 1.8 percentage points, regardless of the level (Figure 10). The fact that this trend has maintained itself for 25 years or more (despite similar job rates growth in rural and urban areas) suggests that rural areas may simply be more prone to higher unemployment than are urban areas.

There are a few possible reasons for this persistent difference. First, rural areas continue to be heavily reliant on cyclical industries, and even when one industry is up, another may be down. Second, higher overall education levels in the urban workforce help employees hold onto their jobs in downturns, and shorten an individual’s job search when employment is lost.

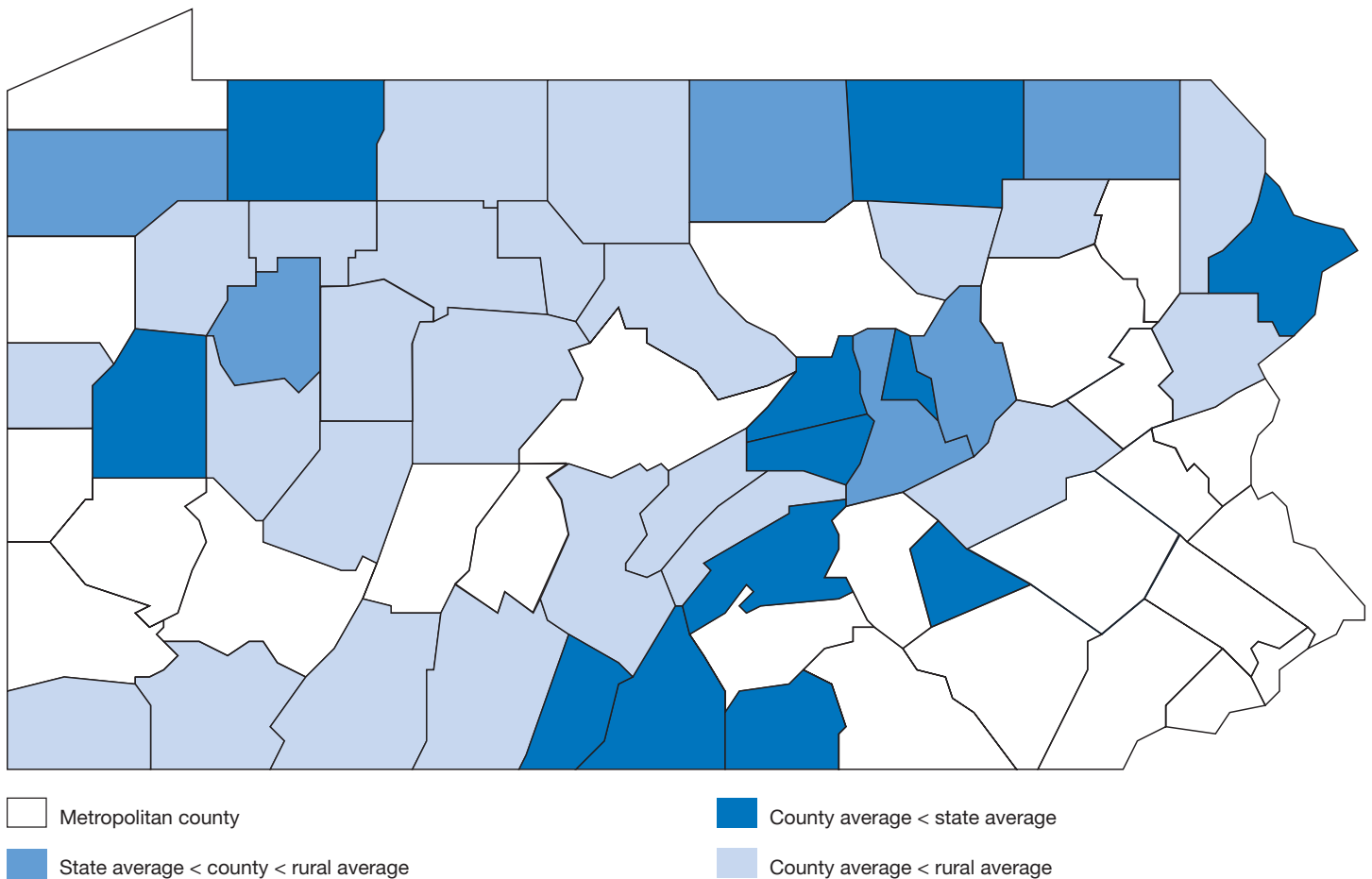
Like the other indicators, recent unemployment rate performance among the state’s rural counties differs greatly. Figure 11 shows how the three-year average unemployment rate of each rural county in 1998 and 2000 compared with the state three-year average (4.2 percent) and the state rural average (5.5 percent). Twelve of the state’s 42 rural counties had an average unemployment rate less than the state average. These counties were located throughout the state, but mostly in the eastern half. Rural counties with three-year unemployment rate averages greater than the state rural average were concentrated in the western half.

**Figure 10. Rural unemployment rates are persistently higher than urban rates in Pennsylvania: 1976–2001.**



Source: BLS

**Figure 11. Three-year average rural unemployment rates: 1998–2000.**



3-year average Pa. rate: 4.2%    3-year average Pa. rural rate: 5.5%

Source: BLS

## Earnings and Income

An investigation into trends in earnings and income highlights the biggest difference between urban and rural Pennsylvania. These trends reveal the growing gaps between rural and urban areas, in both earnings per worker and per capita income. These widening gaps represent, perhaps, the most stunning economic divergence between the state's rural and urban economies over the past 30 years.

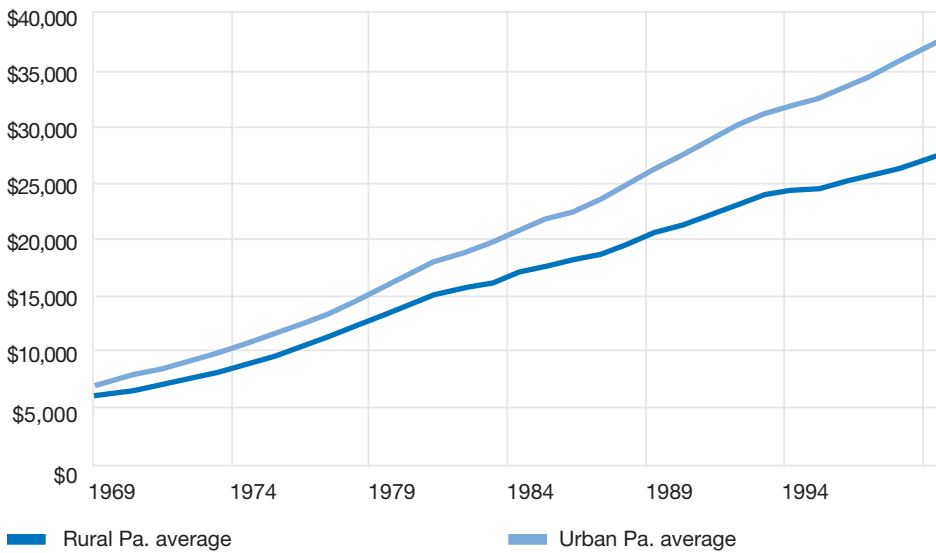
## Earnings

Regarding earnings—which are defined as the sum of wages and salaries, other labor income (such as benefits), and proprietors' income—recent data show that rural workers are becoming less well-off than their urban counterparts on average (Figure 12). In 1969, for example, rural per-worker earnings averaged about 84 percent of the urban per-worker average (\$6,004 in rural areas versus \$7,176 in urban areas). By 1999, per-worker earnings in rural areas were only 73 percent of the average in urban areas (\$26,239 in rural areas versus \$35,947 in urban areas).

What are the roots of this growing gap? While the data do not provide a definitive answer, much of the gap is likely due to the nature of the transformation from a manufacturing- to a service-based economy. While both rural and urban areas are undergoing this transformation, their experiences have been quite different.

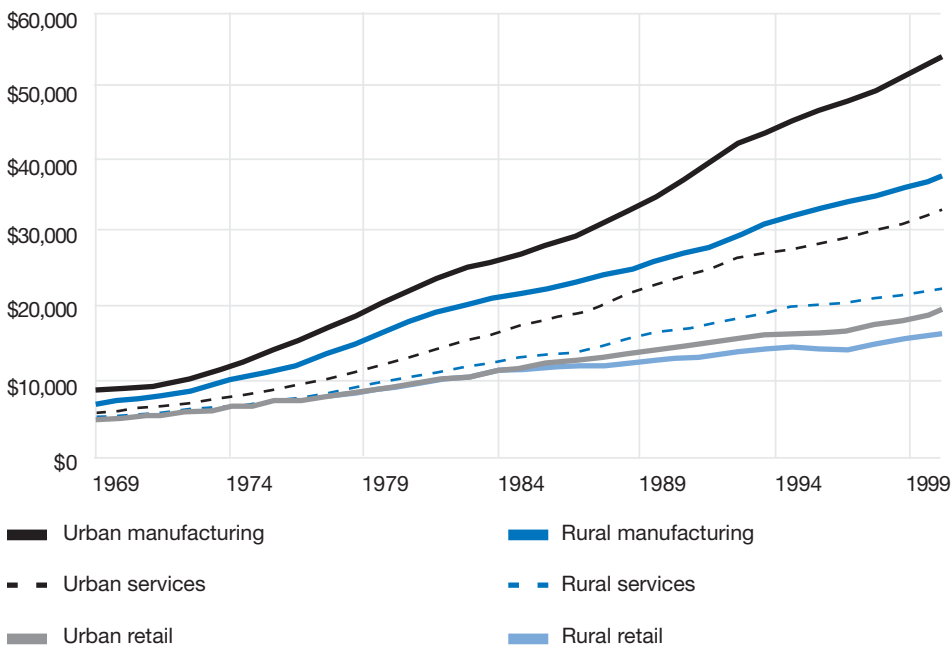
Despite being the fastest-growing sector, many of the new service jobs in rural areas have been relatively low-paying. Indeed, in 1999, per-worker earnings in the service industry in rural Pennsylvania averaged slightly more than \$21,000, a figure that is just 81 percent of the urban average of \$26,239 (Figure 13).

**Figure 12. Rural areas trail urban areas in growth in average earnings per worker in Pennsylvania: 1969–99 (not adjusted for inflation).**



Source: BEA-REIS

**Figure 13. Important industry differences in rural and urban earnings per worker: 1969–99.**



Source: BEA-REIS

While current service earnings per worker in rural areas are 4.5 times higher than they were in 1969 (not adjusting for inflation), they have not grown nearly as fast as the average earnings per service worker in urban areas (Table 1). Urban service workers have seen average earnings increase by more than 5.5 times since 1969, and these workers currently earn 90 percent of the overall urban average. This suggests that the nature of the transformation has differed dramatically in rural and urban areas, with lower-wage jobs dominating service growth in rural areas, while urban areas have created higher-paying service sector jobs.

Trends in the manufacturing sector offer a second reason why earnings per worker have diverged between rural and urban areas in Pennsylvania. For all urban counties, average earnings per worker in manufacturing in 1999 were 6.2 times their 1969 level. While rural areas have also grown, 1999 earnings per worker for rural manufacturing were only 5.3 times greater than the 1969 level.

Finally, relatively poor earnings performance in agriculture and related industries has hurt rural areas. In 1999, earnings per worker in this industry averaged only \$8,665. This is only 33 percent of the rural per-worker average, and is only 2.2 times greater than the 1969 level.

**Table 1. Average earnings per worker in urban and rural areas: 1999.**

	Rural		Urban	
	1999 earnings	Growth since 1969	1999 earnings	Growth since 1969
Agriculture, forestry, and ag services	\$8,665	217%	\$14,480	289%
Mining	\$64,102	793%	\$72,462	657%
Construction	\$27,959	334%	\$38,214	395%
Manufacturing	\$36,794	533%	\$52,850	623%
Transportation and public utilities	\$39,566	463%	\$48,840	537%
Wholesale trade	\$33,028	434%	\$46,847	531%
Retail trade	\$15,770	346%	\$18,649	382%
Finance, insurance, and real estate	\$19,912	472%	\$39,709	668%
Services	\$21,232	445%	\$32,328	556%
Government	\$35,813	619%	\$41,797	596%
Overall	\$26,239	437%	\$35,947	501%

Source: BEA-REIS

### Income

Income is a widely used measure of economic performance. Personal income consists of three main components: earnings, dividend and interest income, and transfer payments from both government and business (including income maintenance assistance and retirement payments).

In rural Pennsylvania, the relative importance of these various sources has changed over time. Currently, earnings represent about 62 percent of total personal income in rural areas; dividends interest and rent make up 18 percent; with transfer payments—mostly retirement payments—making up the remaining 20 percent (Figure 14).

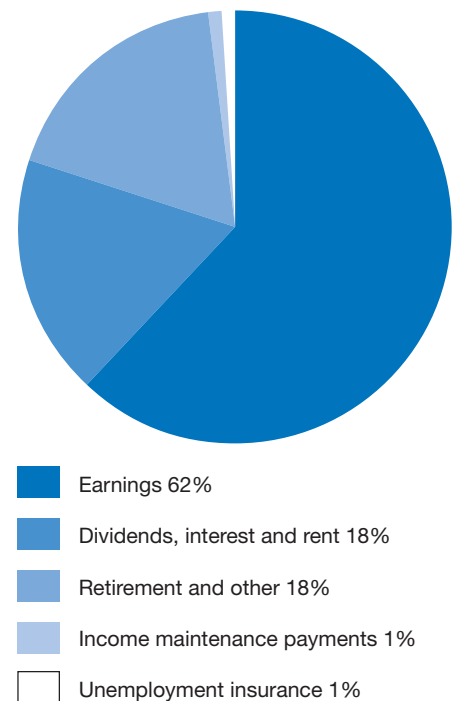
In 1969, however, earnings were a much more important component, representing 78 percent of total personal income in rural areas (Figure 15). This decline in relative importance reflects relatively slow growth in earnings compared to the growth in other income sources. Specifically, Figures 15 and 16 show that the proportion of total income provided by retirement income has doubled during the past 30 years, reflecting the aging of Pennsylvania's

rural population. Also noteworthy, however, is the increased reliance on dividend and interest income, most likely representing wider participation in the stock market. Similar trends, though not as dramatic, have also been taking place in the state's urban counties.

Because earnings historically have provided the largest share of income, the growing gap between rural and urban earnings has widened the gap between rural and urban per capita incomes. In 1999, per capita income in the state's rural counties was about \$22,450, representing about 74 percent of the urban average (\$30,290). In comparison, rural per capita incomes were about 81 percent of the urban level in 1969.

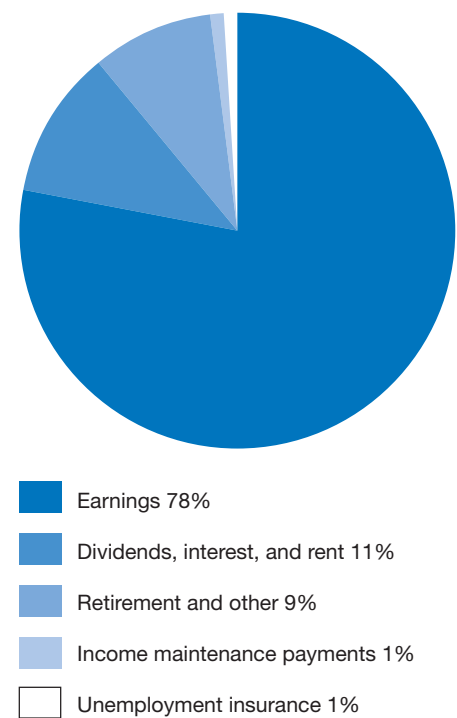
In Figure 16, we see that per capita income in all but one rural county (Montour) was lower than the state average in 1999. In fact, in 29 rural counties, per capita incomes were less than 80 percent of the state average, and 6 of these counties had per capita incomes less than 70 percent of the state average. It is interesting to note that the poorest rural counties are located mainly in the state's southern counties of the Appalachian range.

**Figure 14. Income sources in rural Pennsylvania: 1999.**



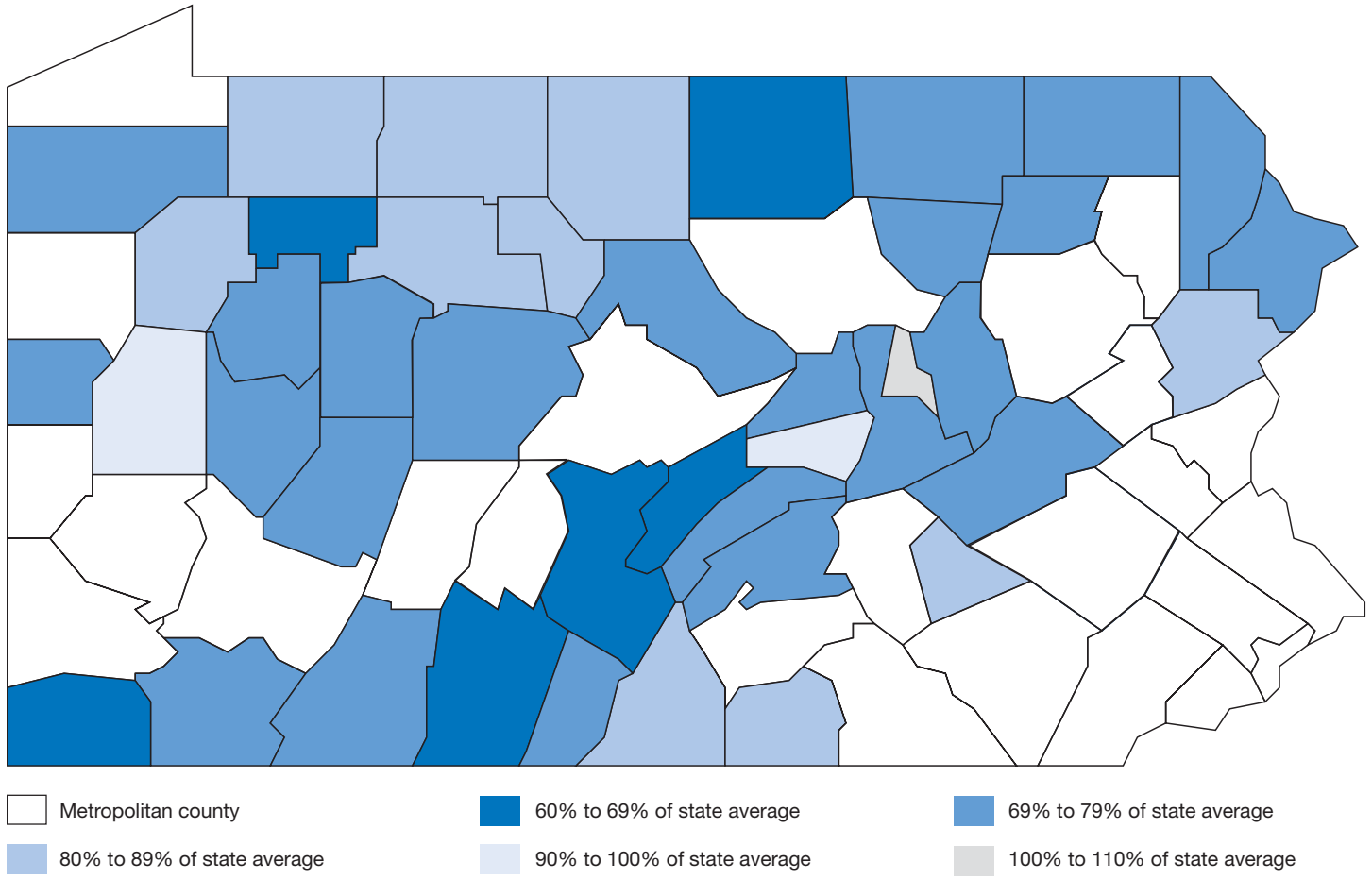
Source: BEA-REIS

**Figure 15. Income sources in rural Pennsylvania: 1969.**



Source: BEA-REIS

Figure 16. Per capita income is lower than the state average in nearly all rural Pennsylvania counties: 1999.



State average: \$28,619 Rural average: \$22,450 (74% of state)

Source: BEA-REIS

## Summary

The economic expansion of the 1990s was felt in different ways across the Commonwealth. Overall, employment in rural Pennsylvania grew faster than it did in urban areas, as did population. This growth, however, was not spread evenly among rural places, and some did better under the recent expansion than did others.

During this period of record growth, Pennsylvania's rural economy continued its dramatic transformation from a manufacturing- to a service-based economy. Three decades ago, one in three rural jobs was in the manufacturing sector. Since then, increased worker productivity and the loss of jobs to overseas competitors have substantially diminished this sector's relative importance. Instead, today's rural economy depends heavily on the service industry, a sector that now provides over 30 percent of all rural jobs.

While this transformation has benefited some rural areas, other parts of the state have suffered. In some counties, employment levels have been stagnant for the past 10 years, despite record national growth. Some of the hardest-hit places are counties that have historically depended on resource extraction and resource-based manufacturing.

The employment picture in the state is closely tied to its population dynamics—typically, rural areas that have developed the most jobs have also added more people, or at least maintained their population levels. Conversely, counties with slow employment growth have had stagnant or even declining populations.

Despite the fact that rural population and employment growth rates have exceeded urban rates in the state, rural workers are becoming less well-off relative to their urban counterparts. Thirty years ago, rural Pennsylvanians earned an average of 84 cents for every dollar earned by urban workers. Today, that figure has fallen to 73 cents. Since earnings are the largest component of household income, this has translated into a rural per capita income that is now only 74 percent of the urban level.

## Additional Resources

Fuller, T., M. Shields and S. Smith (2001). *Road to 2002: Update on Pennsylvania's Economy*. Department of Agricultural Economics and Rural Sociology, The Pennsylvania State University. Published in cooperation with Verizon and PEDDA, this publication provides an overview of the state economy. On the World Wide Web at: <http://www.aers.psu.edu/cecd/>

Penn State Data Center  
<http://pasdc.hbg.psu.edu/index.html>. This site is affiliated with the U.S. Census Bureau and provides detailed census data particular to Pennsylvania.

Pennsylvania Department of Labor and Industry <http://www.dli.state.pa.us>. This site provides a variety of information on Pennsylvania labor markets, including employment and unemployment.

U.S. Bureau of Labor Statistics  
<http://www.bls.gov>. Drawing from unemployment compensation reports, this site provides timely information on county employment, unemployment, and labor force statistics. As it only tracks data on employees covered under unemployment compensation laws, it does not include agricultural employment.

U.S. Bureau of Economic Analysis  
<http://www.bea.doc.gov>. Drawing from a variety of sources, this site provides county-level employment, income and population data for the period 1969–99. While not as timely as the BLS, this site does provide annual estimates of agricultural employment.

U.S. Census Bureau  
<http://www.census.gov>. Drawing from the 10-year Census of Population, this site provides detailed information on population, demographics, income, and other socioeconomic indicators for states, counties, and municipalities.

## Appendix. List of Service Industries

While most people understand that the service industry is an important aspect of the state's economy, there is often confusion as to what types of jobs the industry provides. As a result, service industry employment is often derided as "low-paying, no-benefit." While this characterization may typify some service jobs, it is certainly not true of all. For example, doctors, lawyers, and accountants are all service-industry employees. The list on the right provides more detail on specific sub-sectors of the service industry.

### List of service industries according to 1987 Standard Industrial Classification Code (SIC).

- Hotels, rooming houses, camps, and other lodging places
- Personal services
- Business services
- Automotive repair, services, and parking
- Miscellaneous repair services
- Motion pictures
- Amusement and recreational services
- Health services
- Legal services
- Educational services
- Social services
- Museums, art galleries, botanical and zoological gardens
- Membership organizations
- Engineering and management services
- Private households
- Miscellaneous services

Prepared by Martin Shields, assistant professor of agricultural and regional economics

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