Among the most striking labor-market trends of the past 50 years is the shift in employment from the goods-producing sector to the service sector. Two interrelated forces have generated this long-term change in the sectoral composition of U.S. employment. One is the changing composition of output, reflecting changes in taste, real income, and relative prices. The other is rising labor productivity in many industries, which resulted from the application of new technologies and knowledge, much of it embedded in modern capital equipment and better-educated workers, enabling the introduction of new products and services.

In the post–World War II years, manufacturing accounted for approximately one-third of total nonfarm employment, while the service industry comprised less than 15%. Fifty years later, the shares are roughly reversed, with service industries doubled and manufacturing halved. Mining’s share of employment, however, fell even more precipitously (75%) than that of manufacturing. As the workforce has expanded, a larger share of workers has entered service-producing industries, where solid gains occurred in the employment shares of retail, government, and finance, insurance, and real estate. However, wholesale trade’s share declined slightly, and the share employed in the transportation and utilities industry was roughly halved. Sharp productivity increases over the last 25 years have

(continued on next page)
allowed some industries to expand output while reducing employment. Between 1970 and 1995, overall manufacturing employment dropped almost 5%, but manufacturing output doubled, constituting a 110% increase in productivity per worker. Within the manufacturing sector, output per worker has increased 197% in the steel industry over the last 25 years, 138% in the textile industry, and 126% in apparel.

These huge productivity gains have not been limited to the goods-producing sector. Railroad employment, a subset of the transportation industry, fell more than 60% during the 1970–95 period, but productivity per worker soared 244%. With such employment shifts over time, increased productivity expands the set of goods available for consumption.

Growth in high-tech employment is one trend that highlights the shift from a labor-intensive, goods-producing economy to one dependent on human capital and service production. The U.S. has experienced great technological gains in the 1990s, and, as expected, high-tech employment growth has far outpaced the rest of the economy. A look at computer-related occupations over the last 15 years reveals remarkable growth: While the number of computer programmers increased

(continued on next page)
52% in the 1983–98 period, the number of computer engineers, scientists, and systems analysts dwarfed this figure, registering 421% growth over the same period. Just as overall employment growth in the service-producing sector has exceeded that of the goods-producing sector, high-tech service jobs have grown roughly 12 times as fast as those in manufacturing since 1993.

Projections for the U.S. and the Fourth District suggest that the shift in employment share from goods production to service production will continue. Nationally, the 10 industries projected to gain the most jobs in 1998–2008 will be in the service-producing sector (seven in services, two in government, and one in retail trade). Estimates for the Fourth District indicate an identical trend: Each state projects its 10 fastest-growing job categories will be in the service-producing sector.

States’ projections for occupation growth show two noteworthy trends. First, the high-tech industry is expected to continue growing at a phenomenal rate. Of particular interest is the trend in Ohio, where high-tech jobs are projected to account for the six fastest-growing occupations in the 1994–2005 period. Second, the health care industry is projected to see large growth as well: In Kentucky, it will comprise seven of the 10 fastest-growing occupations.