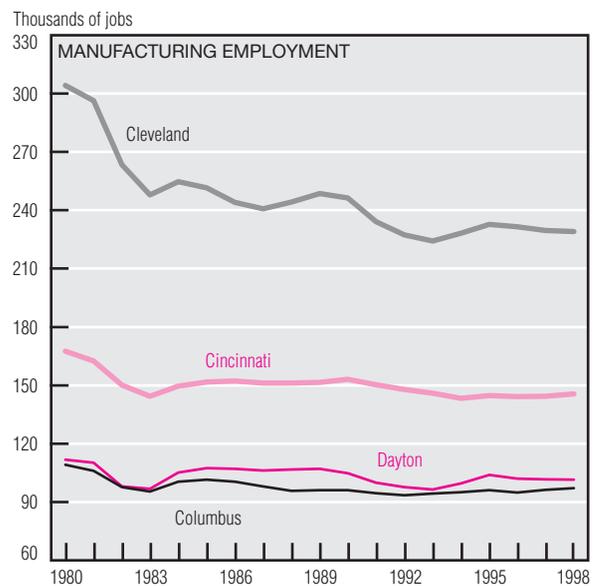
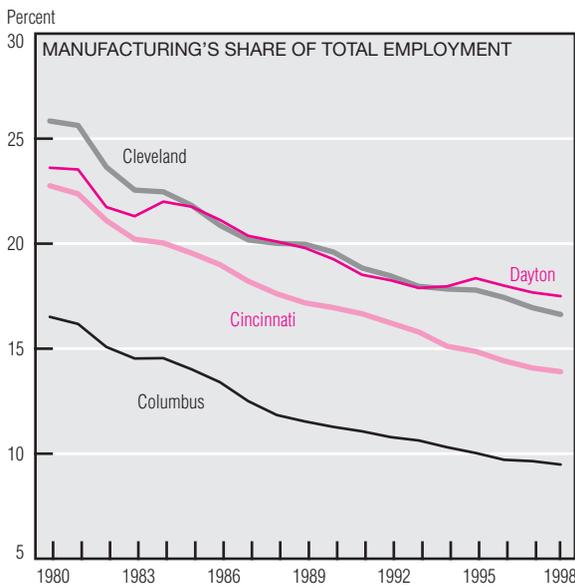
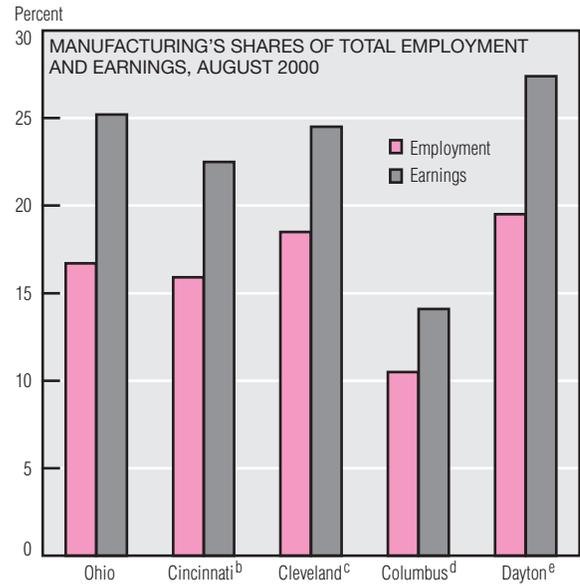
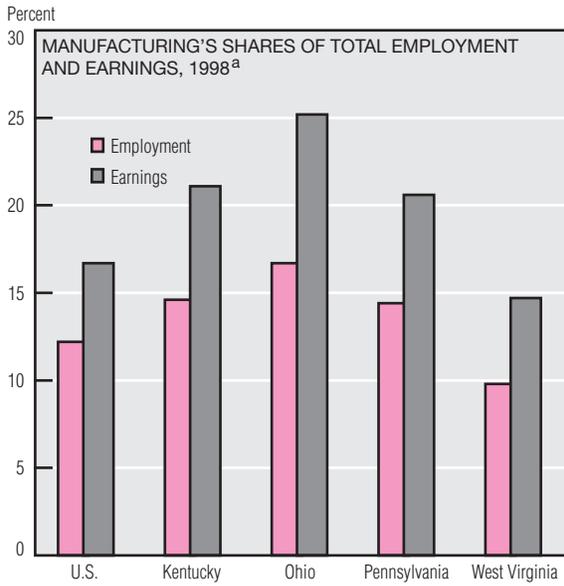


Manufacturing in Ohio



a. 1998 is the most recent year for which national data are available for industry employment and earnings.
 b. The Cincinnati, Ohio, primary metropolitan statistical area (PMSA) comprises Brown, Clermont, Hamilton, and Warren counties in Ohio; Dearborn and Ohio counties in Indiana; and Boone, Campbell, Gallatin, Grant, Kenton, and Pendleton counties in Kentucky.
 c. The Cleveland-Lorain-Elyria, Ohio, PMSA comprises Ashtabula, Cuyahoga, Geauga, Lake, Lorain, and Medina counties.
 d. The Columbus, Ohio, metropolitan statistical area (MSA) comprises Delaware, Fairfield, Franklin, Licking, Madison, and Pickaway counties.
 e. The Dayton-Springfield, Ohio, MSA comprises Clark, Greene, Miami, and Montgomery counties.
 NOTE: Total employment and earnings are nonfarm figures.
 SOURCES: U.S. Department of Commerce, Bureau of Economic Analysis; and Ohio Department of Job and Family Services, Labor Market Information Division, *Labor Market Review*.

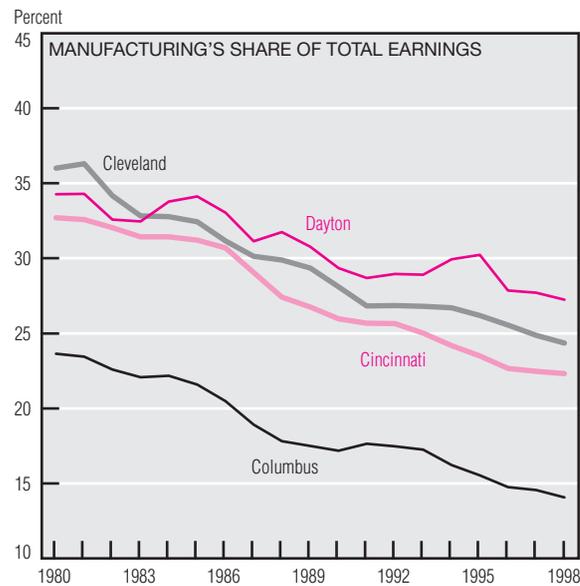
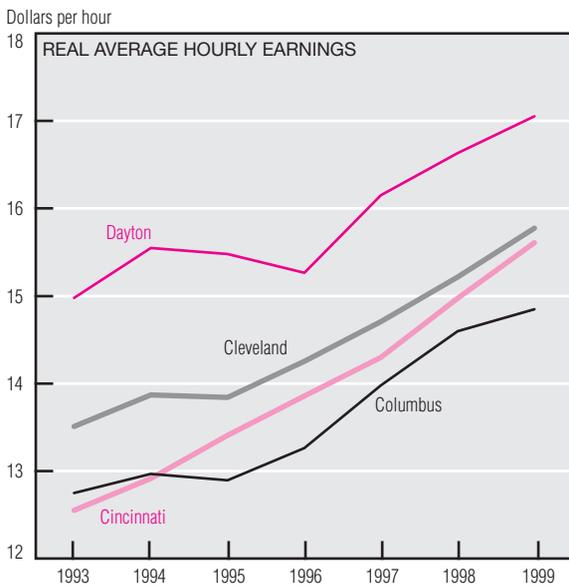
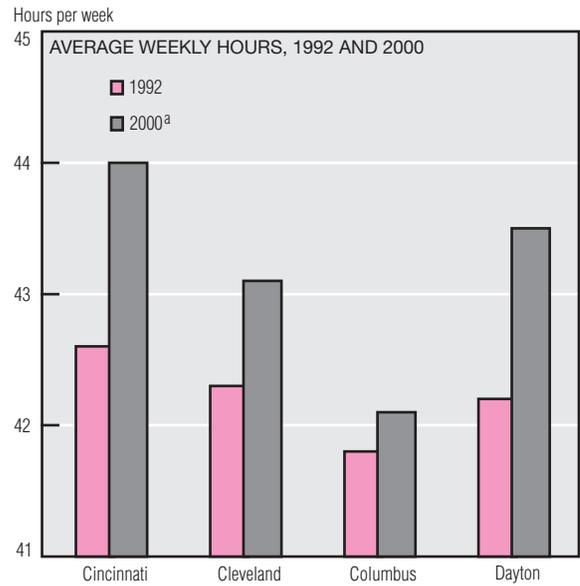
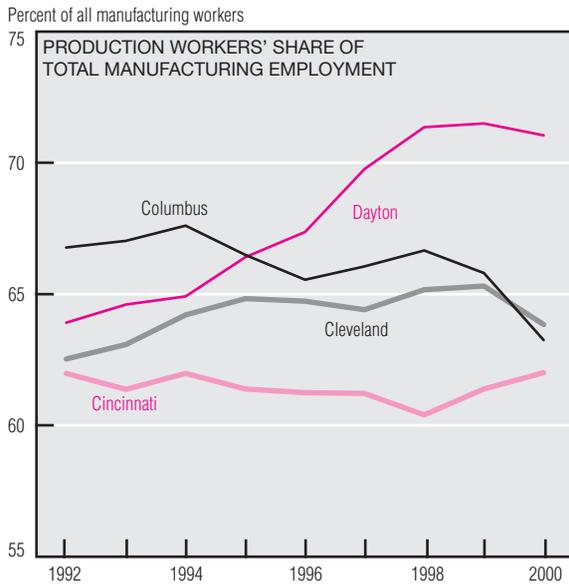
The concentration of U.S. employment has been shifting from the goods-producing sector to the service sector (see *Economic Trends*, September 2000). How is this shift reflected in the Fourth District's labor market, especially in Ohio? Fourth District states, with the exception of West Virginia, are more reliant on manufacturing for employment and earnings than the nation as a whole. For the District, Ohio has the highest share of manufacturing employment (16.7%) and earnings (25.2%).

The four Ohio cities with the largest workforces show a variety of manufacturing-sector patterns. Cleveland and Dayton depend more on manufacturing than does Ohio overall. Columbus and Cincinnati, however, depend less on manufacturing for employment and earnings than the average for the state. This is to be expected because Columbus, as Ohio's capital and home to one of the nation's largest state universities, has a large share of government employees, while Cincinnati has a high concentration of federal government, health care, and education workers.

Throughout the 1980s and 1990s, manufacturing's share of total employment declined steadily in Cincinnati, Cleveland, and Columbus. Dayton posted a slight increase in manufacturing's share of employment in 1995, but this was due only in part to a strong (4%) increase in manufacturing employment. Coupled with manufacturing growth in the area were heavy losses in employment in government and only moderate growth in services.

(continued on next page)

Manufacturing in Ohio (cont.)



a. Through September 2000.
 NOTE: Total employment and earnings are nonfarm figures.
 SOURCE: Ohio Department of Job and Family Services, Labor Market Information Division, *Labor Market Review*.

Dayton's experience suggests that the change in manufacturing's share of total employment is not solely dependent on a change in employment. Cleveland demonstrates this concept: Although manufacturing employment increased in both 1988 and 1989, manufacturing's share of total employment decreased in these years. Larger gains in services and retail mitigated the effects of manufacturing's employment gains on its share of total employment.

The level of manufacturing employment dropped precipitously in the early 1980s in most major Ohio cities, then moderated after 1985 (for Cleveland, 1993). More recently, what

declines there have been reflect turnover: Manufacturers are not hiring new workers to replace many of those who retire.

Changes that improve productivity, such as the application of new technologies, knowledge, or business practices, can affect the composition of the manufacturing workforce. These changes have not had a uniform effect on the concentration of production workers in manufacturing. In Dayton, production workers' share of manufacturing employment rose steadily in the 1990s, presumably because the application of new business practices streamlined the

nonproduction workforce. In Columbus, the share dropped from 67% to 63% between 1992 and 2000, probably because new technologies were adopted in the manufacturing process. In Cleveland and Cincinnati, production workers' share of manufacturing employment in 2000 is similar to their share in 1992.

Manufacturing workers' income has risen steadily since 1992, with an overall increase in each of the four cities for both average weekly hours and real average hourly earnings. Despite this steady increase, manufacturing's share of total earnings has dropped steadily in each city since 1980.