

off” firms founded by employees leaving established local companies, areas of existing high-tech concentration tend to spawn new entrants and to provide necessary labor skills. Agglomeration, therefore, is both a product and a cause of spatial associations.

Not all phases of high-tech production must be concentrated, however. The spatial attractions affecting the professional, scientific, and knowledge-intensive aspects of high tech have little meaning for many of the component manufacturing and assembly operations, which may be highly automated or require little in the way of labor skills. These tasks, in our earlier locational terminology, are “footloose”; they require highly mobile capital and technology investments but may be advantageously performed by young women in low-wage areas at home or—more likely—in countries such as Taiwan, Hong Kong, Malaysia, and Mexico. Contract manufacturers totally divorced spatially and managerially from the companies whose products they produce accounted in 2002 for an estimated 15% to 20% of the output of all electronics hardware. Most often, the same factory produces similar or identical products under a number of different brand names. Through manufacturing transfers of technology and outsourcing, therefore, high-tech activities are spread to newly industrializing countries. This globalization through areal transfer and dispersion represents a third impact of high-tech activities on world economic geographic patterns already undergoing significant but variable change in response to the new technologies.

TERTIARY AND BEYOND

Primary activities, you will recall, gather, extract, or grow things. Secondary industries give form utility to the products of primary industry through manufacturing and processing efforts. A major and growing segment of both domestic and international economic activity, however, involves services rather than the production of commodities. These tertiary activities consist of those business and labor specializations that provide services to the primary and secondary sectors, to the general community, and to the individual. They imply pursuits other than the actual production of tangible commodities.

As we saw earlier in this chapter, regional and national economies undergo fundamental changes in emphasis in the course of development. Subsistence societies exclusively dependent on primary industries may progress to secondary stage processing and manufacturing activities. In that progression, the importance of agriculture, for example, as an employer of labor or contributor to national income declines as that of manufacturing expands. As economic growth continues, secondary activities in their turn are replaced by service, or tertiary, functions as the main support of the economy. Advanced economies that have made that transition are often referred to as “postindustrial” because of the dominance of their service sectors and

the significant decline of manufacturing as a generator of employment and national income.

Perhaps more than any other economy, the United States has reached postindustrial status. Its primary sector component fell from 66% of the labor force in 1850 to a bit over 3% in 2002 and the service sector rose from 18% to 80% (Figure 10.28). Of the 22 million new jobs created in the United States between 1992 and 2002, nearly all of them, after discounting for job losses in other employment sectors, occurred in services. Comparable changes are found in other countries. At the start of the 21st century, between 65% and 80% of jobs in such developed economies as Japan, Canada, Australia, Israel, and all major Western European countries were also in the service sector; Russia and Eastern Europe averaged rather less.

The significance of tertiary activities to national economies and the contrast between more developed and less developed states are made clear not just by employment but also by the differential contribution of services to the gross domestic products of states. The relative importance of services displayed in Figure 10.29 shows a marked contrast between advanced and subsistence societies. The greater the service share of an economy, the greater is the integration and interdependence of that society. That share has grown over time among most regions and all national income categories because all economies have shared to some degree in world developmental growth (Table 10.1). Indeed, the expansion of the tertiary sector in modernizing East Asia, South Asia, and the Pacific was three times the world average in the 1990s. In Latin America and the Caribbean, services accounted for more than 60% of total output in 2000.

“Tertiary” and “service,” however, are broad and imprecise terms that cover a range of activities from neighborhood barber to World Bank president. The designations are equally applicable both to traditional low-order personal and retail activities and, as importantly, to higher-order knowledge-based professional services performed primarily for other businesses, not for individual consumption.

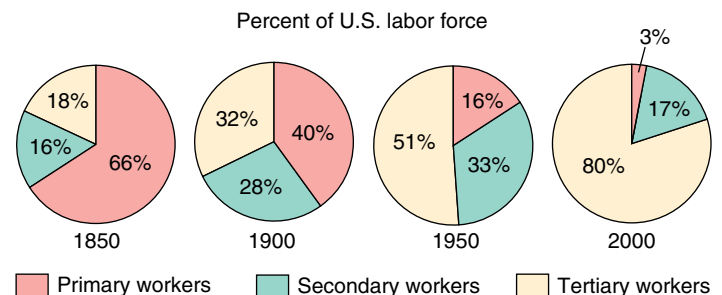


Figure 10.28 The changing sectoral allocation of the U.S. labor force is a measure of the economic development of the country. Its progression from a largely agricultural to postindustrial status is clearly evident.