Service-Sector Wages: the Importance of Education

by John R. Swinton

Employment growth in the service-producing industries has outpaced growth in goods-producing industries since the government began collecting detailed data on the service industries in the mid-1950s. Productivity gains in the manufacturing sector and an explosion in the demand for services both share in the responsibility for this increased growth.

According to the U.S. Bureau of Labor Statistics, manufacturing has lost more than 100,000 workers in this decade. In contrast, finance, insurance, and real estate (FIRE) services have increased employment by 1.4 million, trade industries have added more than 4 million jobs, and the service industries have swelled by more than 6 million workers. Even though manufacturing industries are now regaining some of the strength they lost earlier in the decade, the service sector continues to dominate employment growth.

What kind of jobs are being created in this surge of service-sector employment? One popular image of the transition from manufacturing to services is that of the factory worker, laid off from his $20 per-hour job, accepting a minimum-wage job flipping hamburgers in order to support his family. Such a scenario is undoubtedly dismal, in terms of both underutilized human capital and lost income.

The view that service jobs are uniformly low-wage and that most manufacturing jobs pay well is overly simplistic; however, a large number of high-paying service jobs are available for skilled workers. The real issue is whether displaced manufacturing workers can obtain these jobs with their current skills. This Economic Commentary looks at one aspect of the difference in manufacturing- and service-sector skills by examining education levels and their effect on wage levels in both sectors. The evidence suggests that an increased investment in higher levels of schooling will be necessary in order for manufacturing workers to compete in the rapidly growing service sector.

What Is the Service Sector: Industry or Occupation?

The service-producing sector is an eclectic mixture of loosely connected industries. In addition to the industries that fall under the narrow Standard Industrial Classification (SIC) category of services, the sector also includes wholesale and retail trade and FIRE services. Some economists even include government workers and transportation, communication, and public utility (TCPU) workers.

Even the narrow definition of services encompasses a wide spectrum, ranging from medical to janitorial. The feature that unites these disparate industries is the lack of a tangible, storable commodity as a final product. This viewpoint, however, fails to recognize that the goods-producing sector requires many services as inputs and that the service-producing sector requires many goods as inputs.

An important observation is that occupations within industries often cross over into seemingly different...
industry categories. Within any manufacturing industry, for example, and a broad range of occupations considered service jobs, such as nurse, lawyer, or cafeteria worker. Thus, a worker performing a service may still be classified within a manufacturing industry. In fact, roughly 38 percent of all workers in manufacturing have occupations that may be considered service producing.1

Therefore, it is evident that service production has been an integral input in our economy for some time. It is equally evident that any consideration of the service sector should examine both service industries and service occupations, or should explicitly state which of the two is the topic of inquiry.

Wages and Wage Growth in the Service Sector

Average hourly wages in different industries have been growing at different rates, as table 1 demonstrates. Within the service sector, wage growth has not followed a consistent path. Some service industries (such as private household services and personal services) maintained low average hourly wages and had sluggish wage growth over the last five years. Other services (such as FIRE services and retail trade), which only a few industries have a higher degree of variability in wages than does goods-producing occupations. The highest mean hourly wage in service-producing occupations is for engineers, at $17.02 per hour, while the lowest mean hourly wage, $3.57 per hour, goes to private household workers.

The variation is significantly less in goods-producing occupations, where precision production, craft, and repair workers earn the highest mean wage, $10.57 hourly, while freight stock and material handlers earn the lowest wage at $7.11 per hour.

Although the service-producing occupations show a significant amount of wage variability, much attention seems to be placed on the lower end of the pay scale in the service industries. The concern is that displaced manufacturing workers who had been receiving decent hourly wages will be forced into the medium- and low-paying service jobs.

How Important Is Education?

As noted in table 1, manufacturing workers, on average, earn more per hour than service workers. Many factors play a role in the wage difference, including unionization rates, gender, and ethnic makeup of the sectors. In a competitive labor market, however, firm-specific individuals according to their marginal productivity. The more productive a worker, the higher his wage.

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