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Are Service-Sector Jobs Inferior?

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U.S. manufacturers eliminated 65,000 more jobs than they added last month. There was growth overall — non-manufacturing employment rose by 198,000 jobs — but these service-sector jobs are precisely the lower-paying, benefit-scarce "hamburger flipping" kind that candidate Clinton scorned as not good enough to spark the American economic renewal he promised.

—*The Washington Post*, May 13, 1993[1]

In recent years, U.S. service-producing industries have, on net, added jobs more rapidly than the goods-producing industries. Since the end of 1990, jobs in the service-producing sector have increased 4.1 percent overall, while goods-producing employment has shrunk 5.6 percent.[2] During the same period, total nonfarm employment has risen 1.9 percent. A number of commentators have used these basic statistics to paint a bleak picture: The economy is creating some new jobs and employing a few more people, but only in low-wage service positions; meanwhile, the old high-wage manufacturing jobs are disappearing.

This characterization is inappropriate for three reasons. First, it takes for granted a largely unfounded assertion that service jobs pay considerably less on average than manufacturing jobs. Second, it focuses on *average* wage differences, which are trivial compared to the wide range of salaries available in either sector. Third, it implies that new entrants to the labor force—young workers—are limited to finding jobs in the industries with net job creation. In reality, *gross* job creation is the correct measure of the availability of work in any sector.

In this *Economic Commentary*, we argue that the service-producing industries now offer wage opportunities very similar to those in manufacturing and construction. This finding holds for both broad and narrow industry classifications, as well as for young workers. We do, however, see a larger difference between wages in the goods- and service-producing sectors for workers with only a high school diploma.

Misconceptions about the relative quality of jobs available to workers in various industries abound. One of the most difficult to dispel is the idea that jobs in the goods-producing sector are uniformly superior. Over the last 15 years, goods-producing wages have fallen as service-sector pay has increased, with the result that service workers now generally earn about the same as their counterparts in manufacturing. Consequently, policy that favors goods-producing employment is not necessarily a sensible strategy for generating high-wage opportunities for American workers.

■ Goods-Producing vs. Service-Producing Jobs — An Overview

It is unreasonable to describe service-producing employment, which accounts for nearly 80 percent of U.S. nonfarm jobs, as "lower paying." In 1992, the average weekly wage for full-time workers in this sector was only 3.9 percent below the average goods-producing wage.[3]

However, average wages can be misleading, since they often draw attention to the small difference between very similar pay ranges. Figure 1 compares the distribution of wages in the goods-producing sector to that in the service-producing industries. These distributions have been smoothed to stress a point: Although the average service wage is less than the mean goods-producing wage, the overlap of the two distributions is enormous.[4] At almost any wage rate, there is nearly the same proportion of workers in both sectors.

Furthermore, the two distributions have been moving closer since about 1980. Figure 2 plots the difference between the *median* goods-producing wage and the *median* service-producing wage. The median is a more appropriate measure than the average because, in nearly all industries, a few people earn relatively large amounts while most workers cluster around some lower wage. This is evident in the asymmetric shape of the distributions in figure 1. The high wages of the top-paid minority tend to pull the average above what the majority earns. The median, in contrast, is a better measure of what most workers in a sector are paid. In any given year, exactly half of all workers earn more than the median, while half earn less.

For most of the 1970s, a median worker in the goods-producing industries consistently earned about 13 percent more ($59 per week in 1992 dollars) than the median service worker. Since then, falling goods-producing wages and rising service-producing pay have conspired to narrow the gap. In 1992, the median service job paid $19 per week less than the median goods-producing job — down from a 1979 difference of $82 (also in 1992

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dollars). Still, the perception remains that goods-producing jobs pay better.

■ Comparing Narrower Industries

The two major employment sectors described above can be further broken down into eight specific industries—two goods-producing and six service-producing. These industries have a range of differently shaped wage distributions, as described in table 1.[5] The 10th percentile is simply the wage that the lowest-paid 10 percent of workers fall below. The 90th percentile is the wage that the highest-paid 10 percent surpass.

Clearly, workers' wages depend in part on which industry employs them. There are two reasons for this. First, individuals choose to work in particular industries for reasons other than pay. Such considerations include prestige, opportunities for advancement, and appeal of the actual work. If an industry is not generally preferred by the labor force, then managers may have to pay a premium to attract employees. Second, some industries need workers with advanced skills, experience, or education. Individuals who possess these characteristics command extra pay from the industries that benefit from their special abilities.

Service-producing industries are quite diverse, ranging from retail trade, which paid a 1992 median weekly wage of $340, to transportation and public utilities, with a median wage of $605. Furthermore, there is significant wage variation *within* each of the six service categories. For example, a 90th percentile employee in the finance, insurance, and real estate (FIRE) industry earns a whopping 151 percent more than the median FIRE worker. The 90th percentile for retail trade is 126 percent above the industry median.

In contrast, wages in the two major goods-producing industries — manufacturing and construction — are somewhat more narrowly distributed. In manufacturing, the 90th percentile wage is only 110 percent higher than the median, and for construction, the comparable figure is just 100 percent. This is an important point. The goods-producing sector does offer a few more dollars per week at the median, but many of the highest-paying opportunities are found in the service sector. Note that at the 90th percentile, only retail trade pays less than the goods-producing sector.

FIGURE 1 1992 WAGE DISTRIBUTIONS

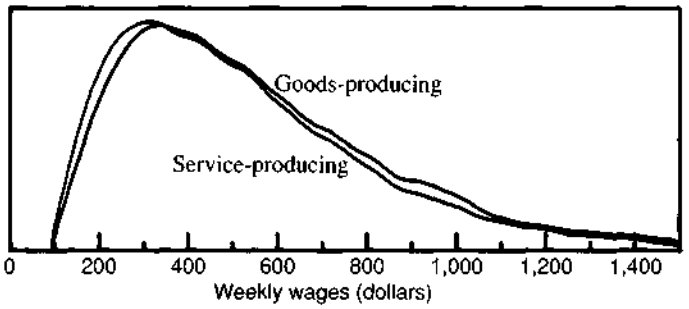
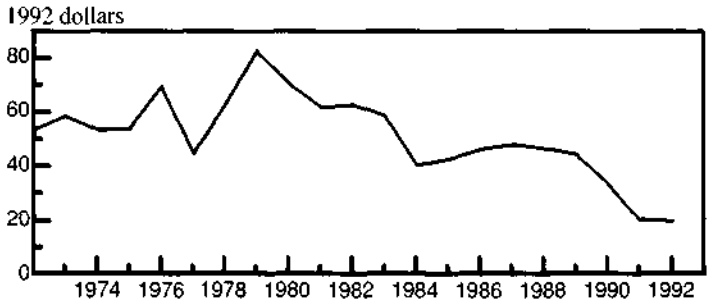


FIGURE 2 DIFFERENCE BETWEEN GOODS- AND SERVICE-PRODUCING MEDIAN WEEKLY WAGE



SOURCE: Authors' calculations based on data from the U.S. Department of Labor, Bureau of Labor Statistics.

So, if wage opportunities are not substantially different, why favor goods-producing jobs over high-wage service employment? One possible answer is that for certain groups of workers — especially the young or relatively uneducated — the goods-producing sector does in fact offer unique opportunities.

■ Young Workers

In order to determine whether the differences between goods- and service-producing wages are more pronounced for young workers than for the workforce as a whole, it is important to ask what kinds of jobs workers entering the labor force are taking.

Unfortunately, the most widely cited employment statistics do not supply the answer. Each month, the BLS reports which industries are creating new jobs *on net*. For example, it recently announced that insurance industry employment decreased by 1,000 in January, while primary metal manufacturing jobs were up by 300. This, of course, does not mean that insurance firms laid off precisely 1,000 people and primary metal manufacturers hired only 300. These are just the changes at the margins of large industries — insurance firms employ 2.1 million people and primary metals manufacturers employ 0.7 million.[6]

Net employment figures likewise fail to convey useful information about the jobs that recent entrants to the labor force are taking. For instance, in the insurance and primary metals example above, it is impossible to know the age or experience of workers being hired and laid off. In particular, it is unclear whether young workers are finding jobs in primary metals rather than in insurance, even though net employment flows are greater in the former.

Again, the alternative is to look at wage distributions, focusing on where young Americans are employed. Table 2 reports the 1992 salaries of workers between the ages of 25 and 30—individuals who

TABLE 1 1992 WEEKLY WAGES IN THE EIGHT MAJOR INDUSTRIES

	Mean	10th Percentile	Median	90th Percentile	Share of Employment
Goods-producing	$587	$231	$500	$1,019	27.9%
Construction	565	230	481	962	6.2
Manufacturing	593	231	500	1,049	21.7
Service-producing	564	212	481	1,000	72.1
Retail trade	425	173	340	769	13.7
Narrow services	563	210	472	1,019	31.7
Wholesale trade	611	249	500	1,091	4.5
FIRE	636	250	498	1,250	7.4
Public administration	648	308	579	1,038	6.3
Transportation and utilities	650	288	605	1,050	8.6

TABLE 2 1992 WEEKLY WAGES FOR WORKERS AGE 25 TO 30

	10th Percentile	Median	90th Percentile	Share of Employment
Goods-producing	$213	$417	$750	26.7%
Construction	195	391	738	6.8
Manufacturing	217	423	750	19.9
Service-producing	208	415	738	73.3
Retail trade	182	327	652	17.2
Narrow services	204	417	719	30.8
Wholesale trade	260	422	760	4.8
FIRE	250	433	769	7.9
Public administration	308	500	817	4.9
Transportation and utilities	235	495	865	7.7

TABLE 3 1992 WEEKLY WAGES FOR WORKERS WITH ONLY A HIGH SCHOOL DIPLOMA

	10th Percentile	Median	90th Percentile	Share of Employment
Goods-producing	$231	$462	$846	33.9%
Construction	244	481	899	8.0
Manufacturing	231	456	827	25.9
Service-producing	192	385	750	66.1
Retail trade	173	313	673	16.6
Narrow services	185	343	615	23.0
Wholesale trade	231	459	885	5.0
FIRE	231	386	692	6.5
Public administration	280	481	810	5.1
Transportation and utilities	269	577	922	10.0

NOTE: Share of employment refers to our sample, which excludes mining and agricultural workers and those who work less than 35 hours per week

SOURCE: Authors' calculations based on data from the U.S. Department of Labor, Bureau of Labor Statistics.

have generally completed their schooling and have entered the work world. The most striking aspect is the generally lower paychecks of young workers relative to the employed labor force as a whole, a phenomenon that can be traced in part to older workers' greater experience.

However, we want to look beyond the wage effects of experience and concentrate on whether young workers currently encounter an abnormally large wage gap between the goods- and service-producing sectors. A relatively substantial difference might indicate that they face worsening employment opportunities. For 25- to 30-year-olds, the median goods-producing wage was only 5 percent higher in 1992 than the median service-producing wage, compared with a 4 percent gap for the entire workforce. This implies that goods-producing jobs are *not* particularly more lucrative for young workers.

In terms of actual employment, table 2 shows that young workers are split among the eight major industries in nearly the same proportions as the overall working population. This is a sign that jobs are indeed available for new workers in the shrinking goods-producing sector. It also indicates that some young workers are finding higher-paying service jobs. Though a slightly inflated proportion of young workers are employed in retail trade (the lowest-paying major industry), this does not justify a policy preference for goods-producing employment. After all, high wages are desirable no matter who is paying them.

■ High School Graduates

We have seen that the wage gap between goods- and service-producing jobs is negligible, even for young workers. But there is an exception worth noting. Given the growing importance of advanced education, particularly in certain service industries, goods-producing jobs may represent a more critical source of higher-paying positions for workers with only a high school degree. Indeed, the goods-producing sector accounts for a relatively large 33.9 percent of all employment for this group (see table 3). Even more important, high school graduates' median wage is a hefty 20 percent higher in goods-producing jobs than in the service sector (as opposed to only 4 percent higher for the general labor force).

The goods-producing industries also offer those without advanced education some of their best opportunities for high pay. For the overall workforce, the 90th percentile wage for goods-producing industries is only 1.9 percent higher than for the service-producing sector. In contrast, for high school graduates, the difference at the 90th percentile is 12.8 percent.

Conclusion

Clearly, the "hamburger flipping" characterization of service jobs is inaccurate. The real issue is matching workers to their best wage opportunity. The goods-producing sector does not always offer the best wages for every worker — a wide range of high-paying jobs is also available in the service-producing side of the economy. Furthermore, there is a surprising degree of overlap between weekly wages in the two sectors, such that even milder characterizations of service jobs as inferior are not borne out in the data.

The one group that appears to benefit from more goods-producing jobs is less educated workers. However, this is not an adequate argument for designing a policy that would shift the distribution of employment opportunities toward goods production. Instead, it suggests once again the importance of educating Americans to meet employers' needs.

Footnotes

1. See Jim Hoagland, "It's Jobs, Remember?" *The Washington Post*, May 13, 1993, p. A27.

2. The Labor Department's Bureau of Labor Statistics (BLS) classifies *all* nonfarm jobs as either goods-producing or service-producing. The monthly BLS employment statistics are often misinterpreted by the media: Service-producing jobs are frequently referred to simply as service positions, while goods-producing jobs are often mistakenly identified as "manufacturing." We follow the BLS classification scheme, in which the goods-producing sector includes not only manufacturing, but also construction and mining. The service-producing side of the economy covers six major subindustries: "narrow" services (comprising business services, health services, and traditional service positions such as hotel jobs); retail trade; public administration; wholesale trade; finance, insurance, and real estate; and transportation and public utilities. The cited changes occurred between December 1990 and December 1993.

3. We use data from the BLS's March *Current Population Survey*, which includes yearly information on a sample of nearly 60,000 households. All wage statistics refer to the weekly wages of full-time workers (those who work more than 35 hours per week, not necessarily at only one job). The workweek for full-time workers is concentrated at 40 hours, so a comparison of weekly wages yields results very similar to a comparison of hourly wages.

4. In raw form, the distributions have jagged shapes because wages tend to group around certain whole and fractional dollar amounts.

5. We exclude mining because its relative employment share is so small that the CPS data cannot accurately describe it.

6. Gross employment flows are typically much greater than net employment changes in most industries. See S. Davis and J. Haltiwanger, "Gross Job Creation, Gross Job Destruction, and Employment Reallocation," *Quarterly Journal of Economics*, vol. 108, no. 3 (August 1992), pp. 819–64.

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