



SPECIAL COMMENTARY

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**Labor Market Evolution: Realities and Romantics**

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**When Employment Changes Faster than our Memories**

Without U.S manufacturing, the Allies may not have won the two World Wars, and the country may not have launched from its agrarian roots into the largest economic powerhouse in the world. We would not be where we are today were it not for American manufacturing, particularly in the twentieth century. But the world has changed, and despite our romantic notions, manufacturing is no longer the keystone of the American economy, nor is it the lifeblood of the job market as it once was. Only in recent years has the reality of labor market evolution hit home for workers, employers and some, not all, policymakers. Since the energy price gains of the 1970s, followed by the rise of globalization and technology, the use of labor in the United States has been permanently altered as illustrated in Figure 1, with manufacturing losing share and other private sectors gaining share.

Figure 1

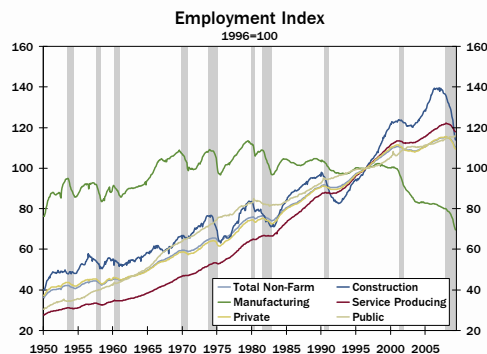
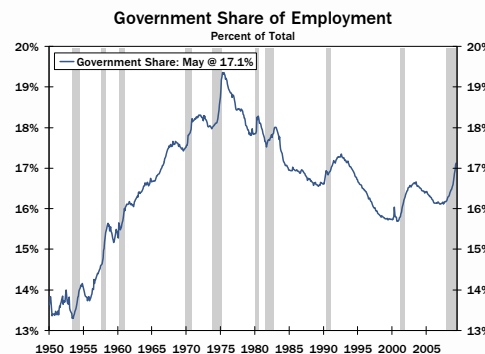


Figure 2



Source: U.S. Department of Labor and Wachovia

This essay focuses on the following four points:

- Manufacturing, the traditional source of middle incomes in the early post-WWII period, has steadily declined while professional services have grown.
- On the public side, the share of employees laboring for the federal, state and local governments has been climbing rapidly (Figure 2).
- New economic realities demonstrate that jobless recoveries are becoming the norm and not the exception.
- Education has become the defining factor of one's labor force experience.

### The Evolution of What We Do: Long-run Decline in Manufacturing Employment

*The total number of employees in manufacturing actually peaked way back in the summer of 1979. Since then the United States has shed on average about 21,000 manufacturing jobs each month.*

Since 1960, manufacturing employment as a share of total employment has steadily declined, and this decline has picked-up speed as the current economic cycle has proceeded (Figure 3). Manufacturers have shed more than two million jobs from the level that held near the peak of the last expansion (Figure 4). During the 2001 recession, and in the months that followed, the economy lost more than three million manufacturing jobs, and manufacturing employment failed to mount any meaningful recovery during the six-year economic expansion that followed. At best, the economy was able to stop shedding manufacturing jobs for a brief time. The total number of employees in manufacturing actually peaked way back in the summer of 1979. Since then the United States has shed on average about 21,000 manufacturing jobs each month. Manufacturing employment fell below 12 million jobs in May 2009 for the first time since early 1946. At that point, manufacturing jobs accounted for more than 30 percent of all nonfarm employment in the country. Today, manufacturing jobs employ just one in eleven workers, making manufacturing jobs in relative terms far less numerous.

Figure 3

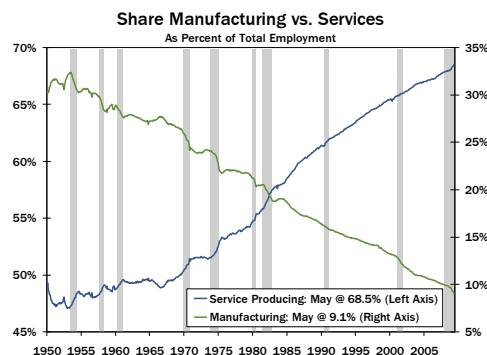
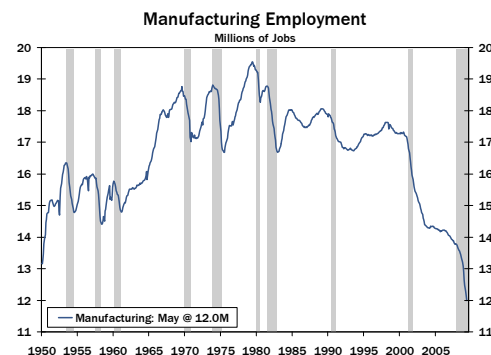


Figure 4



Source: U.S. Department of Labor and Wachovia

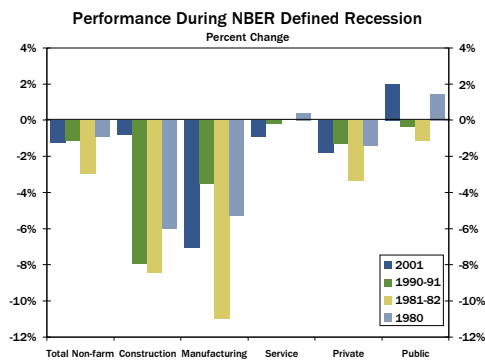
While the manufacturing workforce peaked in 1979, by no means did output in the sector top out at that point. In fact, since the manufacturing employment peak, industrial production, the volume of output for manufacturers, has risen 83 percent. Industrial production has increased on average about two percent each year, while not booming, certainly a contrast to the flat to slightly negative average percent change in manufacturing employment each year. American manufacturing has simply substituted capital for labor and thereby increased the importance of capital in production especially for less-skilled, repetitive production processes (textiles, apparel, food processing) which were a major source of manufacturing jobs in previous decades. The shift toward capital goods such as machinery and advanced

tools and equipment has reduced the efficiency of labor-intensive processes. Unfortunately for those that depend on employment in manufacturing this trend toward capital-intensive production will likely continue through this downturn and into the next expansion. We would expect that as the U.S. economy begins to recover late this year and into 2010, manufacturing employment will lag much like it did in the prior cycle, and will experience few if any gains.

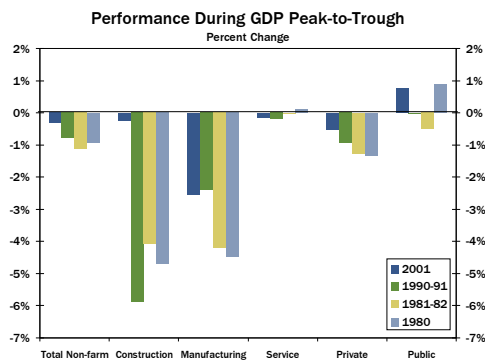
### Changing Nature of Coincidence: Evolution of When We Get Hired

Employment has long been accepted as one of the key coincident indicators of economic activity, and while that was certainly the case for many years, the relationship appears to have been altered in the last two cycles. Figure 5 and Figure 6 outline how employment has moved across several major sectors during the past four downturns. Figure 5 looks specifically at the NBER-defined recession periods while Figure 6 looks at the performance from the peak to the trough in GDP. Both tell similar stories with construction and manufacturing showing major declines while the public sector, government employment, most often turned in the “best” performance.

**Figure 5**



**Figure 6**



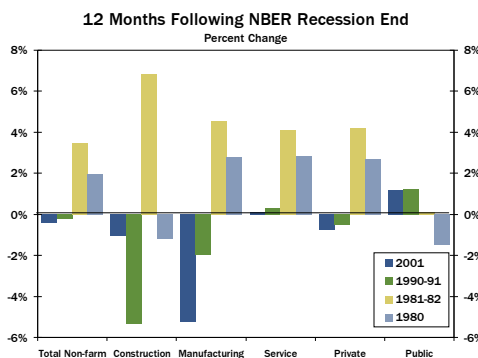
Source: U.S. Department of Labor and Wachovia

This is straightforward and supports the basic notion that employment, and more specifically manufacturing and construction employment, is cyclical, and these industries in particular should see widespread layoffs and employment shedding during downturns. Questions arise on the back-side of the downturn, however, most notably in the 1990-91 and 2001 downturns. The months and years following the 2001 recession were widely deemed the “jobless recovery” as the economy was unable to produce meaningful gains in employment despite the return of growth in the broader economy. While 2001 is known for its slow labor market recovery, 1990-91 actually showed similar characteristics. On the following page, Figure 7 and Figure 8 display the performance of the same sectors discussed earlier in the 12 months following the economic downturn. Histograms in Figure 7 represent job gains in the 12 months from the end of the NBER defined recession while Figure 8 shows the 12 months following the trough in GDP. There is a stark diversion in the experience of employment both in total as well as across sectors between the 1980s recessions and the downturns in 1990-91 and 2002. Both total and manufacturing employment declined in the 12 months following the downturns in 1990-91 and 2001. This was not the case in 1980 and the 1981-82 recession shows a split based on the timing of measurement. The cyclical rebound in employment, that is often taken for granted, may no longer a sure thing.

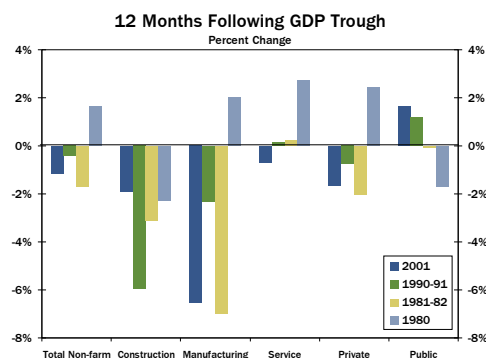
*Manufacturing and construction employment is cyclical, and these industries in particular should see widespread layoffs and employment shedding during downturns.*

In contrast, the public sector has been broadly less cyclical across the last thirty years. In most economic cycles the public sector either declined only modestly or grew outright during the downturns. In the months following the last two recessions, public employment grew and only declined significantly following the 1980 downturn.

**Figure 7**



**Figure 8**



Source: U.S. Department of Labor and Wachovia

If a cyclical rebound in employment is no longer the norm, what does this mean for the current cycle? Should we expect a performance like the 1981-82 recession, the worst downturn in the postwar period until the current cycle, or should we expect something more like 2001, a cycle which was much shallower but had a more contemporaneous economic setup?

Our outlook, unfortunately, calls for the current cycle to look like another “jobless” recovery. While we have positive GDP growth and the end of the recession slated for the third quarter of this year, we are not expecting payroll growth to return until the second quarter of 2010. Moreover, job gains will likely not be significant enough to start pushing down the unemployment rate until the second half of next year. The jobless recoveries of 1991-1993 and 2002-2004 are increasingly becoming the norm and not the exception. We expect a repeat this cycle with job growth far below the empty promises of politicians.

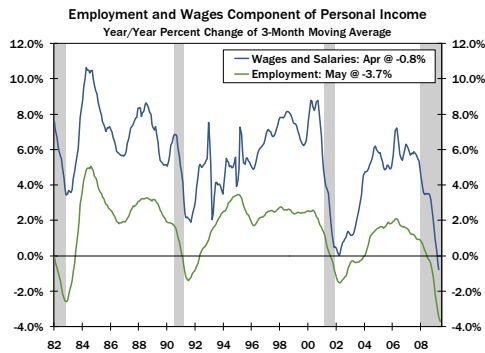
### Wages & Compensation: Evolution in the Amount and Manner in Which We Are Paid

*Despite the popular emphasis on American manufacturing, the data show that in this century neither a significant portion of the jobs nor a major portion of the wages earned are owed to the sector.*

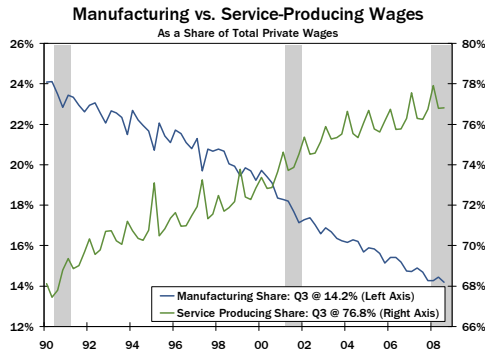
The quantity of jobs contributed by a sector to the economy is not the only thing that matters; indeed, higher-paying jobs are often valued more by politicians and citizens alike. As wages and compensation increase, they allow a higher standard of living and encourage investment, which has a multiplier effect on economic growth. Employment is a clear component of personal income—without jobs the majority of individuals do not get paid (Figure 9). Unfortunately, the long-run decline in manufacturing employment is also reflected in the secular decline in the share of wages paid by that sector. Manufacturing wages have declined steadily since 1990 and now account for less than 15 percent of total private wages (Figure 10). Despite the lack of data availability, it is reasonable to hypothesize that the trend reaches back even further. In conjunction with our expectation of decreasing manufacturing jobs, we likewise expect the sector’s share of wages to continue to decline. Thus, despite the popular emphasis on American manufacturing, the data show that in this century neither a significant portion of the jobs nor a major portion of the wages earned are owed to the sector. In contrast to manufacturing, the service sector has

added jobs at a relatively steady rate over time, and wages have followed suit. The share of total private wages generated by service-producing industries has risen steadily, and now stands above 75 percent. In other words, more than three-fourths of the wages earned in the United States come from the service sector alone. Like the long-term downtrend in the manufacturing sector, we expect services will continue to gain share.

**Figure 9**



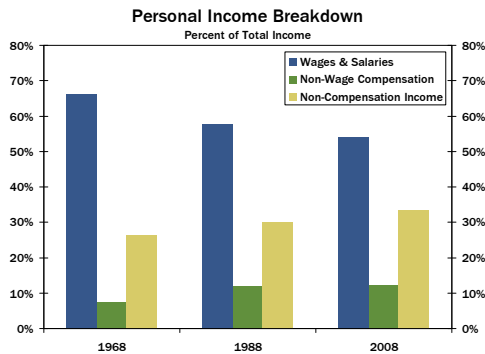
**Figure 10**



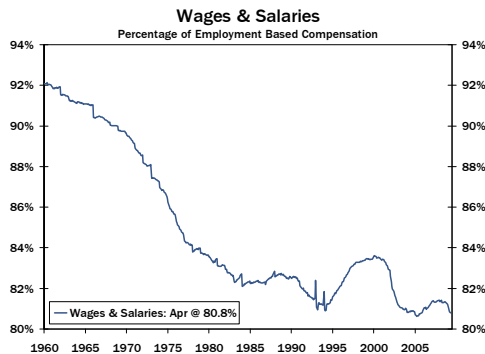
Source: U.S. Department of Commerce and Wachovia

Despite this economy's evolution from a primarily goods-producing economy to a service-producing economy, we do not necessarily think this secular change is inherently problematic. As the economy evolves, most people are better off, as judged by the average standard of living. Those that are negatively affected are often relatively few, and they must seek to redefine their role in the new economy. The goods and services that are produced here continually adjust to represent the most efficient use of the available resources. The reality of today's economy is demonstrated by the secular increase in importance of the services sector.

**Figure 11**



**Figure 12**



Source: U.S. Department of Commerce and Wachovia

While the changes in employment and wages have run their course over the last several decades, so too have changes come to our methods of compensation. Wages and salaries have shrunk as a share of compensation over the last few decades, and more broadly, they have become an increasingly smaller piece of personal income (Figure 11). In 1968 wages and salaries were about two-thirds of personal income and still accounted for roughly 90 percent of employment compensation. By last year they had dropped to less than 55 percent of personal income and just over 80

percent of employment compensation (Figure 12). Evolution in the labor market is everywhere we turn, from jobs to how, as well as the amount and manner in which people are paid.

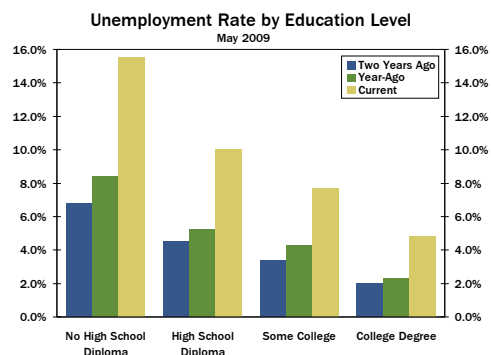
### Education & Returns: Evolution of Why We Get Paid

**“I’ll take those long nights, impossible odds keeping my back to the wall,  
All that to be just what I am...well I’m gonna be a blue collar man.”  
-Styx**

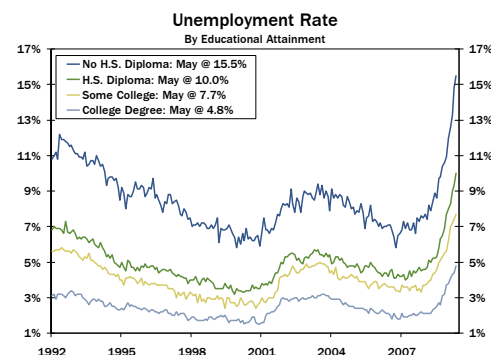
*In line with a trend that holds in times of economic expansion as well as contraction, those having earned a college degree currently have an unemployment rate nearly ten percentage points lower than those who failed to graduate high school.*

In addition to the issues discussed above is the issue of who gets paid, and why. In line with a trend that holds in times of economic expansion as well as contraction, those having earned a college degree currently have an unemployment rate nearly ten percentage points lower than those who failed to graduate high school (Figure 13). Higher education provides an adaptable skill set which enables individuals to have access to a variety of positions in many industries. A lack of education tends to lead to a single industry, such as labor-intensive manufacturing or construction, and fosters a narrow set of skills that cannot be adapted easily to a new career. With mostly non-transferable skills, workers find themselves limited to a specific industry or even a specific employer. As the industry turns down, workers are unable to easily flee for greener pastures. The flexibility afforded to individuals with higher education is one of the keys to maintaining their historically low level of unemployment, and high employment growth. Such people can take their adaptable skill set to the industry that demands it the most at a given time.

**Figure 13**



**Figure 14**



Source: U.S. Department of Commerce and Wachovia

*Currently and historically income is greater and has grown faster for individuals with higher education.*

Since 1983 there has been a shift in jobs from traditional middle-income jobs to higher paying occupations. This has been true for men and especially for women.<sup>1</sup> Besides more job opportunities, more education also yields higher wages.<sup>2</sup> Education is rewarded on an individual basis in the workplace, frequently in the form of increased income, reflecting the increased productivity of workers with higher education in an increasingly technology- and services-oriented labor market. Currently and historically income is greater and has grown faster for individuals with higher education. Finally, contrary to popular assertions, the contributions of international trade to the changes in wage inequality after 1980 have been rather

<sup>1</sup> Ronald G. Ehrenberg and Robert S. Smith, *Modern Labor Economics*, Addison Wesley, 2003, p 475-478.

<sup>2</sup> See John E. Silvia, *Domestic Implications of a Global Labor Market*, Business Economics, July 2006.

small<sup>3</sup>. As the unemployment rate continues to creep to levels not seen since the early 1980s, the value of an education in the formation of human capital, as one of the few asset classes whose value has not declined, becomes abundantly clear.

### Conclusions

Evolution in the labor market has knocked down the romantic ideals of manufactured goods stamped with “Made in the U.S.A.” being of primary importance to the nation’s economy. This essay focuses on four secular trends that call into the question the idealized notion of lifetime employment based upon the belief that only manufacturing jobs are worthy jobs. In a similar way in an earlier era some believed only agriculture was a true measure of economic strength. President Thomas Jefferson, known as a staunch believer in agrarianism, initially opposed diversifying from agriculture into manufacturing, however even he eventually came around. He admitted, “We must now place the manufacturer by the side of the agriculturalist...experience has taught me that manufactures are now as necessary to our independence as to our comfort.”<sup>4</sup> Similarly, the modern era is faced with a transition from a primarily goods-producing economy to a primarily services-producing economy, and must realize that each is part of economic strength.

The composition of jobs available in the United States has changed and will likely continuously adjust to new economic realities going forward. The pace of job gains has lagged economic gains in the most recent recoveries and we expect that pattern to reoccur in the current cycle. How we get paid has evolved from primarily wages to an almost equal split between wages and non-wage/benefit incomes. Finally, the defining reason for our pay has become our education and its use on the job. Working smarter – not harder- has become the benchmark.

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<sup>3</sup> Gary Burtless, *International Trade and the Rise in Earnings Inequality*, “Journal of Economic Literature” 33, no.2 (June 1995): 800-816.

<sup>4</sup> Thomas Jefferson to Benjamin Austin. January 9, 1816.

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