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**TRENDS IN JOBS AND WAGES  
IN THE U.S. ECONOMY**

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## **Abstract**

In this chapter I review the changes in the U.S. labor market over the past four decades, focusing on the economic trends that have had the greatest impact on work as viewed from the employee's perspective: wages, hours, job stability, and demographics.

## **Wages**

Economists prefer hourly wages to measure how skill is valued in the labor market because it enables the comparison of labor market outcomes for people who may have very different kinds of jobs and demographics. Entire volumes have been written on how and why wages have changed since the 1970s. Here we document the key changes.

### *Aggregate wages versus the wage distribution*

The Bureau of Labor Statistics (BLS) monthly reports focus public attention on changes in average earnings for all workers. Yet this masks significant differences in trends for lower- versus higher-wage workers. Thus many researchers and policy analysts compare different points in the real (inflation adjusted) wage and income distributions. We follow that convention here.

Table 1 shows real hourly wages for men and for women at three points: 1973, 1995, and 2003, as originally reported by Mishel, Bernstein, and Allegretto (2005). 1995 is significant because it represents the general time (mid-1990s) when there was a marked shift in trends in the male wage distribution. Consequently, the numbers in Table 1 are constructed to show how wages changed over the 30 years between 1973 and 2003, and how those changes, at least for men, can be divided into two distinct periods. For greater details on the trends (including the year-by-year changes) see Mishel, et al. (2005).

The top panel has the male wage distribution; the middle panel has the female wage distribution. Within each panel, the first three rows report the real hourly wage at various points of the wage distribution (columns 2 through 7), and the ratio of wages for the 50<sup>th</sup> versus 10<sup>th</sup> percentiles (column 8) and for the 80<sup>th</sup> versus 50<sup>th</sup> percentiles (column 9). The latter are measures of inequality for workers at the bottom versus middle versus top of the wage distribution at a

point in time. The bottom three rows in each panel report percentage changes in hourly wages for two sub-periods (1973-95 and 1995-2003) and overall (1973-2003); these figures are in columns 2 through 7. Columns 8 and 9 in the bottom rows of the top and middle panel report changes in inequality for the two sub-periods and overall.

The bottom panel reports female-male wage ratios, indicating how women's wages fall short of men's wages at each point of the wage distribution. Note that the gender wage ratios in this context are not designed to describe "comparable worth," which is a measure of wage ratios for women and men working in similar jobs. Rather the gender wage ratios in this case provide a way of summarizing the relative economic progress of women (compared to men).

**Changes in the hourly wage distribution for men.** Wages for men in the bottom half of the distribution (50<sup>th</sup> percentile or lower) in 2003 were slightly below their counterparts' wages in 1973: -3.5 percent for the 10<sup>th</sup>, -6.8 percent for the 30<sup>th</sup>, and -1.1 percent for the 50<sup>th</sup> percentiles. Wages in the top half of the distribution (60<sup>th</sup> percentile or higher) were higher in 2003 compared to 1973: 3.3 percent for the 60<sup>th</sup>, 16.8 percent for the 80<sup>th</sup>, and 29.8 percent for the 95<sup>th</sup> percentiles. Thus, jobs at the lower end of the wage distribution lost ground during 1973-2003, while jobs at the upper end gained in both absolute and relative terms.

The overall trend during these three decades masks two very different trends before and after the mid-1990s. Prior to the mid-1990s, wages for the bottom half of male wage earners fell in real terms, with a majority of the decline occurring during the 1980s (Mishel, et al., 2005). Other measures of wage and income disparities also show a marked increase in inequality during the 1980s (Card and DiNardo, 2002; Jones and Weinberg, 2000). During the rapid economic expansion in the latter half of the 1990s, in contrast, wages rose throughout the income

distribution, though the gains tapered off after 2001 for lower-paid workers and continued to rise at a more moderate pace for higher-paid workers (Mishel, et al., 2005).

Reasons for the increased dispersion in wages include skill-biased technical change (a relatively larger increase in demand for skills that already commanded a pay premium, such as knowledge work), loss of highly-paid industrial jobs, and institutional changes (erosion in the real value of the minimum wage; deregulation and increased competition in industries such as transportation and services; and continued erosion of union power). While the debate over the relative importance of each of these has not been resolved, the most likely scenario is that each plays a contributing role. For further discussion of these changes, including international comparisons, see Blau and Kahn (2001, 2002), DiNardo and Pischke (1997), Johnson (1997), Juhn, Murphy and Pierce (1993), Katz and Murphy (1992), Levy and Murnane (1992),.

**Changes in the hourly wage distribution for women and the gender gap.** The middle panel of Table 1 reveals a different story for women. Wages throughout the female wage distribution rose in both periods. This led to a marked closing of the male-female wage gap (bottom panel of Table 1). When gender wage ratios are constructed for workers at different life cycle stages, the differences and changes over time are more stark. According to Blau and Kahn (2000), in 1978 women age 18-24 earned 82.4 percent of their male counterparts age 18-24, which contrasts with 62.3 percent for women versus men age 55-64. By 1998 the gender earnings gap for 18-24 year olds had narrowed to 94.2 percent, while for those aged 55-64 it narrowed but at a slower rate, to 69.3 percent. One of the more striking features of women's wage gains in the 1980s is that they were achieved at the same time that the overall distribution of wages widened substantially, which hit many traditionally low-paid, female-dominated

occupations. Blau and Kahn (1997) quite appropriately name this “swimming upstream” against economic forces that otherwise might have widened the gender wage gap.

There writings on women’s labor market progress have been voluminous. As summarized by Blau and Kahn (2000), the leading explanations include occupational shifts toward white collar and away from blue collar jobs, technological change and increased computer usage which indicate the rising importance of knowledge-based work, decreased discrimination by employers, and increased female labor force attachment and dedication to professional and managerial occupations. With respect to the latter, women now spend greater fractions of their adult years in paid work outside the home, including immediately after childbearing, and they are much more likely today to work in occupations that traditionally have been male dominated.

Educational attainment has changed significantly. According to Blau, Ferber and Winkler (2002), between 1966 and 1997 women’s share of professional degrees increased in a range of areas including medicine (from 6.7 to 41.4 percent), law (from 3.8 to 43.7 percent), business (from 3.2 to 38.9 percent), and dentistry (from 1.1 to 36.9 percent). These trends continued through 2002: women account for two thirds of veterinary medicine and pharmacy degrees, and more than 40 percent in both medicine and business (Cox and Alm, 2005). Increased education leads to occupational attainment: between the early 1970s and 1999, the share of women working in administrative support and service occupations fell from 53 to 41 percent, while the percentage of managerial jobs held by women increased from less than 20 percent to 40 percent (Blau and Kahn, 2000). The percentage of female college graduates who go on to become teachers fell from almost half in 1960 to less than 10 percent by 1990 (Flyer and Rosen, 1994).

For further details on these changes, see Berman, Bound and Griliches (1994), DiNardo and Pischke (1997), Krueger (1993), O’Neill and Polachek (1993) and Weinberg (2000).

**Changes for racial and ethnic groups.** Both blacks and Hispanics earn much less than whites on average. In 2003, those earning wages at or below the poverty line were 20.4 percent of whites, 30.4 percent of blacks and 39.8 percent of Hispanics (Mishel, et al., 2005).

Among nonwhites, there are some dissimilarities for the gender-based subgroups (Mishel, et al., 2005). The share of black men earning wages at or below the poverty line declined slightly in the 1970s, rose in the 1980s, and then declined again in the 1990s; by 2003 the rate stood at 26.2 percent, down from 31.9 percent in 1973. Hispanic men's wages had a similar up-and-down pattern (as did white men), yet over the thirty year period they lost ground: those earning wages at or below the poverty line rose from 31.7 percent in 1973 to 35.7 percent in 2003.

The improvements for black and Hispanic women mirror their white counterparts. All three groups saw continual improvement over the thirty years (Mishel, et al., 2005). The percentage of white women earning wages at or below the poverty line fell from 46.1 percent in 1973 to 26.0 percent in 2003. For black women the improvement was even stronger, falling from 58.2 percent in 1973 to 33.9 percent in 2003. For Hispanic women, in contrast, the gains were more moderate though still substantial, with those earning at or below the poverty line falling from 60.6 percent in 1973 to 45.8 percent in 2003.

**Changes in the college wage premium.** College workers have always earned more on average than high school graduates or dropouts. But the premium rose significantly in the 1980s and rose again slightly in the 1990s (Card and DiNardo, 2002; Mishel, et al., 2005). In 1979 the college wage premium was approximately 29 percent for men and 32 percent for women; by 1999 it had risen to approximately 45 percent for men and 50 percent for women (Card and DiNardo, 2002). This was a significant reversal from the 1970s, a time when a falling college wage premium led some to worry about "overeducated" Americans (Freeman, 1976).

Today it is clear that a college education is a primary determinant of labor market success *on average*. Yet the average obscures significantly different outcomes among workers with similar levels of education. In short, having a college education does not guarantee high wages, nor does lack of advanced schooling doom high school graduates to a life of poverty. But in general more education is a good thing. And the fact that the benefit to having more education has increased so strongly over the past two decades is compelling evidence of the shift toward knowledge work in today's society.

**Executive pay.** The most widely-cited measure of inequality is the ratio of CEO pay to average worker pay, which has increased dramatically from 24 in 1965 to 185 in 2003 (Mishel, et al., 2005). Much of the criticism of this focuses on whether the CEO alone creates firm value because CEO compensation continues to increase at fast rates regardless of firm performance.

If the increase in pay were limited to CEOs alone, it would not merit discussion here: the CEOs of the Fortune 1000 firms constitute only 0.0000008 percent of a total U.S. workforce of over 130 million. Rather, the increase in CEO pay has coincided with a sharp increase at the upper tail of the income distribution (Table 1): the upper 5 percent of income earners collectively have realized the greatest gains over the past couple of decades.

Is this just a striking coincidence, the simultaneous increases in pay both for CEOs and for the bulk of the highest-paid people in the workforce? Most likely, no. One possible explanation is the trend toward flatter organizations with fewer middle management layers (Lawler, Mohrman and Benson, 2001; Rajan and Wulf, 2003). A flatter organization implies that the people who were highly paid 30 years ago (those higher up the corporate hierarchy) today have greater responsibilities (bigger spans of control). Increased responsibilities in turn can be used to justify even higher within-company wage differentials, comparing those at different

levels of the hierarchy, which appears to have occurred (Rajan & Wulf, 2003). In such a world we might see the wage of lower level workers remain relatively constant in real terms (assuming their job responsibilities did not change appreciably), while the wage of higher level workers would rise to compensate for the greater responsibilities. While other factors undoubtedly have contributed to the complex changes that have taken place in the labor market, this pattern is consistent with the general changes in the wage distribution in Table 1.

**Rising within-group dispersion.** The increased dispersion evident in Table 1 holds even within groups of workers who share similar demographic characteristics. For example, today there is more variation in wages and earnings among people with similar levels of education, not just between: more dispersion among high school graduates; more dispersion among those with only some college education; more dispersion among four year college degree holders; etc. This pattern also appears among employees holding the same job title (Groshen and Levine, 1998; Levine, Belman, Charness, Groshen and O’Shaughnessy, 2002; O’Shaughnessy, Levine and Cappelli, 2000). This means more relative economic winners and losers among groups of people who previously had economic fates that were much more closely aligned.

Three human resource practices are consistent with increased wage dispersion. Rising within-occupation pay dispersion (O’Shaughnessy, Levine and Cappelli, 2000) is consistent with increased use of competency-based pay (Lawler and McDermott, 2003), which differentiates rewards among incumbents within a role based on their knowledge, skills and abilities (Lawler, 2003; Spencer and Spencer, 1993). Increased use of merit pay and bonus pay creates rewards based on actual performance, with impacts that are both long-lasting and transitory, respectively; the use of both forms of pay appears to have increased (Lemieux, Parent and MacLeod, 2005; O’Shaughnessy, et al., 2000). Thus, the compensation policies in the current era appear to

differentiate pay among job incumbents more than the compensation policies in the previous era did.

### **Job stability**

In the mid-1990s, when the U.S. was in the middle of the first “jobless recovery,” concern was raised that jobs had become less stable, marking the end of lifetime employment. One potential cause was the corporate restructurings that started in the late 1970s and impacted many icons of U.S. industry suffered setbacks (U.S. Steel, IBM, AT&T, General Motors, etc.).

The concerns about job stability led to a flurry of research on job tenure, i.e. how long a job lasts, where a “job” is defined by a person working for a company in a particular role. This research echoed the notion from a previous era about the number of jobs people would have over their working lifetimes. Of course it is impossible to forecast with complete certainty how long any job will last. Thus researchers instead have focused on the distribution of job tenure.

**Trends in overall job stability.** Despite common perceptions, the research through the mid-1990s found little change in the overall distribution of job tenure (Jaeger and Stevens, 1999; Neumark, Polsky and Hansen, 1999). That this research was not updated likely is due to: (a) no strong downward trend in job durations through 1996, and (b) the booming labor market of the late 1990s, which temporarily shifted the balance of power toward workers. Thus while workers today may, for other reasons, perceive a tougher labor market than the generation before them, shorter job duration for the “typical” workers does not appear to be part of the problem.

One reason for the gap between perception and reality is the attention paid to the fates of large corporate icons and a reporting bias in the media. Job losses often happen episodically and rapidly, making for good press. In addition, actual jobs cut often fall short of the announced amount because the latter include unfilled positions; over time not all cuts necessarily occur.

Further, despite the fall of corporate icons of the last era (U.S. Steel, General Motors, IBM, AT&T, etc.), new icons have risen to take their place – Microsoft, Intel, WalMart, etc. These new icons all have employees who have spent their entire careers there, but none were on “the list” of icons in the late 1960s and early 1970s. Moreover, other have never left icon status (Proctor & Gamble, UPS, etc.) and have continued to offer the chance for lifetime employment. Finally, hiring often is much more incremental than job cuts, and does not garner headlines.

Another issue is large firm reporting bias: 1000 layoffs at one firm make a bigger splash than 1000 layoffs spread evenly over 10 smaller firms. This means that media reports of announced layoffs (weighted heavily toward large companies) offer little evidence on the nature of job stability for the “typical” job, which is just as likely to be at a large versus a small firm, using the cutoff of 500 employees as defined by the U.S. Small Business Administration. The reality is that jobs are less stable at smaller than large companies: small businesses have greater rates of both job creation and destruction (Davis, Haltiwanger and Schuh, 1998).

**Job stability winners and losers.** Despite the lack of change in the average duration of jobs, there have been notable changes in the experiences of certain subgroups. Through the mid-1990s, there was an increase in job stability for women, and for men with shorter job tenures; at the same time, job stability declined for men with less formal education, for men with longer job tenures, and for blacks (Neumark, Polsky and Hansen, 1999). Cappelli’s chapter in this volume provides evidence that the declining trend for older men continued through the late 1990s.

Decreased job tenure does not necessarily indicate negative labor market outcomes if employees initiate the separations for better jobs. Yet both high school educated men (at all levels of experience) and college educated men with more than fifteen years of labor market experience both had falling real wages in the 1990s (Card and DiNardo, 2002), so their reduced

job tenure indicates either the involuntary loss of desirable jobs or voluntary separations from less-desirable jobs. Rather, wages for women and men with less experience gained or stayed approximately the same in real terms, and they had relatively stable job tenure, in the 1990s. Thus changes in job duration seem to be positively correlated with changes in average wages.

**Changes in hours of work.** The publication of Juliet Schor's *The Overworked American* in 1991 served as a clarion call for people worried about the burden of work on employees. The debate that followed the book's publication was intense and followed a similar pattern as the debate over job stability. With the benefit of more than a decade of additional data, the evidence can be summarized as follows (Coleman and Pencavel, 1993a, 1993b; Jacobs and Gerson, 2004):

Average hours worked per week barely changed for both for genders between 1970 and 2000. Yet the flat trend masked growing dispersion in the distribution of hours worked. For both genders there was a decline in the percentage working 40 hours a week, and an increase in the percentage working 50 or more hours. Growing hours dispersion along education lines mirrored changes in the wage distribution: college educated workers are working longer hours, particularly at the top of the hours distribution, while hours worked for less-educated workers have fallen. Moreover, gender today appears to be growing less important in distinguishing hours of work than is education: college educated workers, regardless of gender, are increasingly more likely to have similar patterns of hours worked, relative to high school-educated workers (Coleman and Pencavel, 1993b).

The workers with the longest long hours (50 or more per week) are professionals and managers: 37.2 percent for men and about 15 percent for women, in contrast to men's 21.3 percent and women's 7 percent in other occupations. College educated workers have always worked long hours on average and that gap has grown since 1970; they are precisely the group

more likely to be professionals and managers. Thus the picture painted by Coleman and Pencavel (1993a, 1993b) and by Jacobs and Gerson (2004) is one in which the demands on employees' time have increased over the past four decades, at least for more highly skilled employees.

The situation for those with lower levels of skill is opposite, however, at least for 1967-89. During this period, Juhn, Murphy and Topel (1991) document that both unemployment (not working but actively looking for work) and nonparticipation (neither working nor looking) increased significantly for lower skill men – the group with falling real wages. This meant, in large part, increased spells of joblessness during the year; that is, for many lower skill men, increased rates of unemployment and nonparticipation mean a lower number of hours worked during the year (versus not working for the entire year). Thus one response to falling wage opportunities appears to be withdrawal from the labor market altogether.

**Business cycle changes.** The most recent recessions have been more “white collar” than in the past: a larger percentage of white collar workers lost jobs in 1991-92 and 2000-01 compared to earlier recessions (Mishel, et al., 2005). This is consistent with the media's coverage of the last two recessions. Yet I believe that the media tend to focus too much on the fate of the more experienced, higher wage workers and ignore the fate of the less skilled, lower wage workers who traditionally have borne the disproportionate burden of labor market adjustments.

Part of this is probably just the “old news” phenomenon: lower-skilled, lower-paid workers have always had it harder, in both good times and bad, so editors may have gotten tired of publishing the same old stories about who loses jobs in a recession. The other cause, however, I believe lies in reporters' self-centered view of the world: it is their friends and family members who are more likely to be white collar and higher paid, so recessions in the past happened to

“other people,” not people like them (the reporters). When the structural adjustments that took root in the 1990s started to impact their friends and family, reporters took notice.

The most recent data indicate that the 2000-01 recession had a fairly significant negative impact on higher paid, white collar workers (Farber, 2005). Specifically, there has been a relative shift in job loss such that college educated workers experienced their highest job loss rates in over 20 years. In contrast, other groups’ recent job loss rates are either the same or lower than in the period during and immediately following the early 1980s recession. Consequently, between 2000 and 2003, the share of long-term unemployment accounted for by workers with a bachelor’s degree or more rose from 14.2 percent to 19.1 percent. Yet despite this, the overall unemployment rate for this group is still lower than for other workers.

**The consequences of job loss.** To this point we have not differentiated between voluntary and involuntary job loss. One reason why such a distinction often is not relevant is because people often leave jobs voluntarily when the match is no longer viable, whether the cause is due to performance or non-performance related reasons. Thus the line is blurred.

In order to identify the economic impact of true job loss, economists have focused on “job displacement” – the subset of firm-initiated separations that are not performance related (due to a plant closing, layoff, abolition of a job, etc.). The trend data on job displacement are relatively short, dating to the early 1980s. Yet some interesting patterns still emerge.

According to Farber (2005), following the early 1980s recession, the job displacement rate tracked the unemployment rate very closely, both falling with economic growth. The trend after the 1991-92 and the 2000-01 recessions differed, however: in 1993-95 the job displacement rate increased while unemployment fell; in 2001-03 both the displacement and unemployment

rates rose after the recession had ended. Thus, the latest two recessions have had high job destruction rates extend past the end of the recession.

Along with the greater job displacement, the last two recessions have also been followed by relatively slow rates of job growth (Groschen and Potter, 2003), introducing the “jobless” recovery notion. Low job growth and high displacement indicate a higher degree of structural adjustments in the period following a recession. Yet both of the latest recessions also were characterized by relatively low unemployment rates: jobs were easier to find for a greater percentage of the working population. Considering all these aspects together, it appears that over the last two decades the U.S. economy became less likely to experience deep, short structural adjustments, and more likely to experience less deep, but longer lasting, structural adjustments.

Finally, we consider whether the consequences of job loss are greater today. People displaced from jobs typically suffer significant earnings declines, part due to earning lower wages on subsequent jobs, part due to earnings lost while out of work. According to Farber (1995), between 1981 and 1993, the average total earnings loss for displaced workers was relatively constant, ranging between 10 to 15 percent. In the mid- to late 1990s the earnings loss fell below 10 percent, but then rose significantly to a two-decade high for people displaced from jobs in 2001-03. Thus the consequences of job loss today are as high as they have been in a generation, indicating substantial economic hardship from structural adjustment. Unfortunately, it is too early to tell whether recent experience indicates a new regime for displaced workers.

Similarly, there has been a recent shift in who bears the larger brunt of the economic burden from job displacement. Among workers who lose full-time jobs and eventually find full-time jobs to replace them, prior to the most recent recession it was workers with less education (particularly high school dropouts) who experienced the greatest percentage loss of total

earnings, compared to workers with a four year college education or more. In 2001-03, however, the situation reversed: now the workers who realize the greatest percentage reduction in total earnings are those with at least some post-high school education (Farber, 2005).

### **Shifting income risk onto employees**

**Variability.** To this point we have considered employment and earnings at a point in time. However, employment and earnings variability or uncertainty also impact job quality.

One indication that incomes within a job may more variable today is the increased use of bonus pay for salaried workers. On the positive side, greater use of bonus pay can preserve jobs by shifting revenue fluctuation risks from firms to workers. On the negative side, it can be used as a way to keep overall compensation costs down either inadvertently or on purpose. According to Lemieux, et al. (2005), the fraction of salaried jobs that received bonus pay at least once during the employment relationship increased steadily during the 1980s, and stood at around 50 percent in 1998, up from about 30 percent two decades earlier. The fraction of jobs receiving bonus pay in the current year, however, increased much more slowly and lagged considerably behind, rising from about 12 percent in the mid-1970s to about 20 percent in 1998. The fact that an increasing fraction of jobs is bonus eligible (having received a bonus at some point in time) but does not garner a bonus in the current year indicates that some earnings variability has been successfully shifted from firms to workers.

**Trends in health and retirement benefits.** Two other trends that have shifted income risks onto employees: falling health care coverage, and changing retirement plans.

Between 1979 and 2003, the share of workers covered by employer-provided health care plans dropped by 11.6 percentage points (from 69.0% in 1979 to 56.4% in 2003; Mishel, et al., 2005). This significantly shifted income risk (due to unforeseen health expenses) from

companies to employees. Greater coverage loss occurred for high school educated workers (down 16.0 percentage points) than for college educated workers (down by 9.2 percentage points), further exacerbating the inequality trends in wage compensation (Mishel, et al., 2005). Thus including health care coverage provides a starker picture of widening total compensation inequality (including fringe benefits) than the analysis based on wages alone reveals.

Employer-provided pension coverage also declined over the 1979-2003 period, though not in a linear fashion, first falling in the 1980s, then rising through 2000 before declining again through 2003. According to Mishel, et al. (2005), the net loss was 4.7 percentage points (from 50.6% in 1979 to 45.9% in 2003), which also represented a shifting of (old age) income risk from companies to employees. Interestingly, the less-than-sharp aggregate decline masked big gender differences: coverage for men dropped substantially from 56.9% in 1979 to 47.2% in 2003, while coverage for women *increased* from 41.3% in 1979 to 44.3% in 2003. Thus the pension coverage gender gap almost disappeared. The education gap, however, widened: high school educated workers' coverage fell from 51.2% to 40.9%; college educated workers' coverage fell and then rose so that it ended up virtually unchanged (61.0% in 1979 versus 60.2% in 2003). So adding in this second component of total compensation to health care benefits and wages paints an even starker picture of rising inequality along educational lines.

Among those who remain covered, costs and risks shifted as well. For health care benefits this meant rising premiums and co-pays. For pension benefits this meant large scale substitution of defined contribution for defined benefit plans (Mishel, et al., 2005): in 1980 defined benefit plans covered almost 40 percent of the workforce, versus less than 10 percent for defined contribution; by 1998 defined benefit plans covered about 20 percent while defined contribution covered more than 25 percent. Moreover, with the recent insolvencies of large

defined benefit plans such as United Airlines, there is every reason to believe the trend continues through today and will continue into the future.

### **Shifting employment risk onto employees: “Contingent” or at-risk jobs and outsourcing**

One of the biggest developments in the debate in recent decades over the nature of jobs and how they are changing is the perceived growth in “contingent” jobs. There is no single definition of contingent jobs; for example, some people include part-time jobs, others do not. Most observers would agree that contingent jobs are those that are most tenuous and susceptible to being cut when times are difficult. This includes temporary staffing positions and project-based jobs with no guarantee of continued employment beyond a fixed date.

One view is that firms today are more likely to take a core versus periphery approach to managing their workforces. The core is the employees who uniquely or disproportionately contribute to the bottom line. The periphery is the employees whose jobs are more like commodities to be bought and sold on the open market. Periphery jobs are prime candidates for outsourcing to other firms that specialize in providing commodity labor, such as janitorial work and food service (Abraham and Taylor, 1996). Outsourcing of periphery jobs is part of the trend toward focusing on core competencies that accompanied the breakup of large industrial conglomerates in the 1970s and 1980s. Outsourcing represents the logic of core versus periphery as applied to jobs within business units.

Periphery and contingent jobs are similar, but not the same. For employees, holding outsourced periphery jobs does not necessarily mean that their employment prospects worsen, *so long as the job stays in the same general geographic location*. Workers in both the “sending” firm (the outsourcer) and the “receiving” firm may remain just as likely as before to have their positions eliminated due to organizational restructuring. Because labor appears on the balance

sheet only as a cost and not an asset, there always is a tendency for organizations to look to labor cost savings as one of the first options to improve financial performance.

Besides the longevity of the job, the employees' career trajectory also may be either worsened or improved by outsourcing. Consider the case of janitors working in a knowledge intensive firm. Before outsourcing there may be little upward mobility for lack of an internal labor market in the sending firm. The receiving firm, in contrast, may offer more of a career ladder if it specializes in janitorial services. For janitors working in a blue collar firm, in contrast, being outsourced may raise the difficulty of moving into related occupations in the sending firm that previously might have led to better career trajectories.

Thus outsourcing does not necessarily worsen workers' employment prospects *so long as the job does not move and continues to exist*. If the job changes geographic locations, however, or if it is eliminated altogether because of technological changes, then the worker falls into the category of being displaced, the general consequences of which we discussed above. With this in mind, it is worth noting the recent media and business focus on offshoring of knowledge-based, higher-level white collar jobs (such as accounting, engineering, etc.). This has been aided by high speed internet connections and a ready supply of highly skilled English speaking workers in less-expensive labor markets such as India and Eastern Europe.

These changes have the potential to lower wages and increase employment instability for workers previously sheltered from international wage competition. Many labor market changes over the past two decades are consistent with higher-wage, higher-skill workers facing more turbulence and competitive pressures in the labor market. Yet despite the fact that such workers are more likely to suffer long-term unemployment than in the past and take longer to recover

from the negative impacts of job displacement, it is this same group of workers that on average has reaped the greatest labor market gains, at least in terms of wages.

Further, it is unclear how much of the economic impacts are due to offshoring per se, versus more “ordinary” organizational restructuring that has previously impacted first blue collar (manufacturing) and then lower-level white collar jobs (data entry, receptionists, calls centers, etc.). Given that the estimates of jobs lost due to offshoring are miniscule in proportion to the total number of jobs created and destroyed annually in the U.S. – amounting to about only 1 percent (Bhagwati, Panagariya and Srinivasan, 2004) – the reality is that offshoring likely is a contributor, but only a very minor contributor, to the U.S. labor market changes that have impacted higher-skill workers recently. One likely factor that will limit offshoring’s ability to materially impact the average U.S. worker is the difficulty in integrating work of interdependent teams when team members are in distant locations. The research on distributed work reveals productivity limitations that often offset the hourly labor cost savings (Gibson and Cohen, 2003).

Because peripheral jobs are not necessarily contingent, we need to focus on jobs that more narrowly fit the definition of contingent. Thus we define contingent jobs to mean those jobs in which the organization has shifted employment risk onto employees who otherwise would be hired as “regular” – or “indefinitely employed” – workers.

In the extreme, organizations may treat almost all jobs as contingent, as in many parts of Hollywood and aerospace. Yet, these models are interesting because they represent the *promise* of what might happen in other sectors, not the *reality* of what has happened. To my knowledge there is no data to gauge the spread of *organization-wide* contingent employment models. However, we still can address whether contingent employment has increased in the less extreme cases where companies make use of contingent or project-based jobs alongside a core of

noncontingent (or “regular”) jobs. The BLS defines three categories: temporary help agency workers, independent contractors, and on-call workers.

**Temps.** Of all three groups, the most comprehensive data and research are available for temporary workers. The temporary help services industry certainly has evolved since the 1970s. A generation ago temps were epitomized by the “Kelly Girl” – a female working in administrative support occupations such as secretary or receptionist who was called in for short periods to cover for employees who were sick or on leave. Segal and Sullivan (1997) refer to these as the stereotypical “pink-collar” occupations. As Segal and Sullivan (1997) document, however, in the 1980s the growth in temporary employment was disproportionately concentrated in blue collar occupations. The 1980s also was a period of rapid expansion in the temporary staffing industry, though from a very small base (Levenson, 2000). Despite the rapid growth, today only 1-2 percent of the workforce at any point in time is a temp.

Anecdotal accounts suggest that the percentage of higher skill white collar workers employed as temps expanded during the 1990s, though it is more likely that such people were working as independent contractors (see below) rather than for staffing firms. By 2005 pink collar occupations accounted for 25 percent of people employed by temporary staffing agencies, 37 percent were in blue collar occupations, 20 percent were in management and professional occupations, and 18 percent were in service and sales occupations (BLS, 2005). It should be noted, however, that these figures includes the “permanent” or core staff of agencies, so the percentages in the non-blue collar categories likely are at least slightly overestimated.

During the boom years of the late 1990s, temporary staffing firms accounted for a disproportionate percentage of net job growth (Katz and Krueger, 1999). Yet despite this, in 1995, in 2001, and in 2005 the fraction of the work force whose primary jobs were working for

staffing agencies did not change (BLS, 2001, 2005). The flat trend is likely due to two factors. First, a certain percentage of temporary jobs are held as second jobs to supplement income from a main, nontemporary job. If this type of temping increased in the late 1990s it would show up in the establishment survey payroll statistics but not in the Current Population Survey (CPS) which classifies workers according to their main job; it is the CPS that the BLS (2001, 2005) uses to analyze temporary jobs.

Second, temporary employment is just that – temporary. It often is used by companies to screen for regular positions (Houseman, 2000), and is used by workers as a short-term strategy when dealing with job displacement (Farber, 2000). Consequently, more than half of people who are temping in one year typically end up in “regular” jobs one year later (Segal and Sullivan, 1997). As much as two to three times more people temp at some point throughout the year than at any given point in time (Finegold, Levenson, and Van Buren, 2003).

Thus the concerns that have been voiced about larger and larger numbers of people being forced into temporary employment do not appear to be well founded – at least if we consider temporary employment as a long-run phenomenon from which workers cannot extricate themselves. That said, temporary employment does appear to have become much more pervasive in the U.S. economy, serving as the new port of entry for many workers who today must first work as temps before being offered a regular job (Houseman, 2000; Finegold, et al., 2003). Firms’ increased use of temps is motivated at least partly by rising costs associated with the erosion of the employment at will doctrine and the associated increased cost of firing regular employees (Autor, 2003). Many of these same workers in previous generations would have been hired directly by the company; for them, the new regime arguably is worse. But for a different, and likely smaller, group of workers, the ability of temporary staffing agencies to provide points

of entry and free training for more marginal workers (Autor, 2001; Finegold, Levenson, and Van Buren, 2005) likely represents an *improvement* in their labor market prospects relative to what might have happened in the absence of staffing agencies.

For others, particularly youth who are trying out different occupations and those who are committed to finding work in a specific occupation, temporary agencies may create a more “liquid” market for job search that enables better matching of workers to jobs and “try-before-you-buy” for workers who want to learn more about a specific organization before committing to stay on long term. For these workers, temping can help them avoid the stigma associated with having a large number of short duration job on one’s resume. On the downside, however, workers employed with a temporary agency are much less likely to receive benefits, lowering the value of their total compensation relative to other workers. Thus many temps prefer to have regular jobs and make that transition within a year (Segal and Sullivan, 1997). Firms appear to use temps as part of a successful financial strategy (Nayar and Willinger, 2001), suggesting that their use is not likely to revert back to the lower levels of the previous generation anytime soon.

**Independent contractors.** Independent contractors have received much less attention from both the media and researchers. Yet according to the BLS (2005), they are much more common, representing 7.4 percent of the workforce in 2005, versus 1 percent for temps (as defined by the person’s “main job”). Independent contractors also are much more likely to be older white male and college educated, compared to temps.

The demographics of independent contractors and the self-employed are very similar. This is not surprising because there should be a lot of overlap between the two groups, particularly the two-thirds of self-employed who are unincorporated (Hipple, 2004). Because of the similarities, we can use the self-employment research to make some extrapolations.

Self-employment rises with age (Evans and Leighton, 1989): greater labor market experience leads to more successful self-employment. This is driven by a relatively constant rate of entry into self-employment but sharply declining hazard rate for leaving self-employment. Thus over the life cycle people learn how to not fail in self-employment, suggesting a link between accumulated labor market experience (and/or the ability to finance a try at self-employment) and self-employment success. The same likely is true of independent contractors, who probably are willing to enter that state of employment only after accumulating sufficient labor market experience to be able to negotiate effectively for satisfactory employment terms.

Independent contractors are twice as likely as temps to be managers and professionals, and four times as likely to be in construction and extraction occupations. Being an independent contractor is preferred by 80 percent of the incumbents, much more than the 32 percent of temps who prefer to stay temps (BLS, 2005). This likely means different things for different occupations. For managerial and professional independent contractors who prefer that role, being an independent contractor likely represents a real choice because they have other traditional job options from which to choose. For the manual labor jobs like construction, in contrast, an independent contractor preference may reflect the fact that the entire industry is seasonal and there are relatively few benefits to being a regular employee who is laid off every year when works slows down, versus an independent contractor who is hired on a project basis.

The recent evidence shows that the percentage of independent contractors has not changed much, rising slightly from 6.7 percent in 1995 (Cohany, 1996) to 7.4 percent in 2005 (BLS, 2005). This might be a surprising given the explosion in web-based job search sites. But despite the expansion in such job search capabilities, it is not clear that the role of informal networks have diminished in importance because a majority of jobs traditionally are filled

through informal channels like word of mouth through friends and family or professional contacts (McDonald and Elder, 2005). And finding jobs through professional contacts is more important for older, managerial workers, precisely the group that is more likely to be independent contractors. So it is doubtful that the internet plays a role in the current incidence of independent contractors. Rather, if independent contractors are a relatively new phenomenon for the current generation (compared to the 1960s and 1970s), it is more likely that they are an outgrowth of companies' efforts to save on wage and benefits costs for a group of employees whose skills put them in a position of relative strength (compared to temps) to bargain for a more transactional relationship that is viewed as favorable by both sides – organization and employee.

**Female self-employment.** Over the past thirty years, female self-employment has gained in importance (Devine, 1994): between 1975 and 1988, women's share of self-employment grew from 24 to 32 percent even as the overall rate of self-employment grew. This was the “swimming upstream” period when women made wage gains in regular jobs even as rising wage inequality worked against them by lowering the real value of (disproportionately female) lower-paid jobs. Then, in the 1990s through 2003, the overall rate of self-employment fell slightly, but more so for men than women, so women's share of self-employment grew further to 34 percent.

Some commentators have said corporate “glass ceilings” lead women to strike out on their own. The relatively minor gains in female corporate board and top management team membership are consistent with this. Yet discrimination may not be the only cause of rising female self-employment. Gender differences in wage and hours worked imply converging work patterns, and the same trend may help close the self-employment gap: rising female self-employment may be due as much to rising levels of labor market experience.

Yet despite any such convergence, women – both self-employed and non-self-employed – remain much more likely to work part-time than their male counterparts (Devine, 1994). Thus women’s demand for more flexible or reduced hours schedules may partly be driving their increased self-employment rate, even as the rate of working part-time among wage and salary workers for women has declined (Figure 1A). Consequently, it likely is the case that glass ceiling factors contributed to rising self-employment among the most successful women in very large organizations, but only marginally contributed to rise in self-employment for women overall.

**On-call.** On-call workers account for 1.8 percent of all jobs. This may not seem like much except for the fact that on-call workers have been virtually ignored in discussions of the labor market, even though they account for twice as many “main” jobs as temps. The BLS defines on-call workers as those who are called to work only as needed, although they can be scheduled to work for several days or weeks in a row.

On-call workers are like temps who are hired directly by a company instead of using a temporary staffing company as intermediary. As of 1995, there were approximately three direct-hire temps for every temp hired through a staffing agency (Polivka, 1996). Just like agency temps, a majority of on-call workers would prefer to have a regular job than remain on-call.

**Contingent versus alternative work arrangements.** The BLS distinguishes between alternative work arrangements (temp, independent contractor, on-call) and contingent jobs. The latter refers to jobs that are not expected to last longer than a year. Almost 40 percent of temporary help agency workers are *not* contingent. Even if we allow for overcounting due to the inclusion of core agency staff (who themselves are not temps), this suggest that a nontrivial percentage of “temporary” assignments last for more than a year. For on-call workers and

independent contractors, the vast majority are not contingent, with fully 75 percent and 97 percent, respectively, reporting that they expect their jobs to last at least a year (BLS, 2005).

Thus, like outsourcing, more alternative work arrangements, particularly independent contractors, does not necessarily imply greater job instability. Of particular note is that the percentage of independent contractors who are contingent is virtually identical to the percentage of workers with “traditional” arrangements who are contingent (96.6 versus 97.1 percent).

**Part-time jobs.** Part-time jobs do not equate to contingent jobs, because many people are voluntarily part-time and remain in that state from year to year. A part-time job is one that typically averages less than 35 hours/week, and thus may be ideal for students who are in school, people (most often women) who are responsible for taking care of their dependents, and the elderly who wish to remain active in the workplace but do not want to work a full schedule.

Despite the fact that part-time does not equal contingent, people still often equate part-time jobs to bad jobs (Blank, 1990). A main reason is that, on average, part-time jobs pay lower wages and are less likely to offer benefits than full-time jobs. Given that the profiles of people who are better matches for part-time jobs (women, youth, elderly) all earn less in the labor market in full-time jobs, standard human capital models find that a much of the part-time / full-time wage gap is due to the different demographic characteristics of part-time workers. This issue is whether part-timers earn lower wages because of the job (the job is the cause) or whether people with lower wage opportunities choose to take part-time jobs (lower skills are the cause).

The reality is that both stories likely are true. Aaronson and French (2004) find evidence that working part-time produces a wage penalty for men but not for women. It also is the case, however, that lower-wage men are more likely to report that they are part-time “involuntarily,” which likely is partly due to them refusing lower-wage full-time jobs as they hold out for higher-

wage full-time jobs which may not be available (Levenson, 2000). And being involuntary part-time is a relatively temporary state, compared to being voluntary part-time, as the former are at least 50 percent more likely to make the transition to working full-time (Stratton, 1994). Finally, the rate of involuntary part-time employment is highly cyclical, rising in slack labor markets and falling in tight labor markets. Thus while involuntary part-time work may be an inferior labor market state, it typically is not long-lasting.

Moreover, the vast majority of part-time workers are voluntary, not involuntary: only about one in seven part-time workers is involuntary. This means that trends in the overall rate of part-time employment are driven primarily by changes in voluntary part-time job holding. The trend from the 1960s through the early 1980s was slightly increasing, but then slightly decreasing through 2003. During the last two decades, however, the gap in part-time work patterns between men and women has narrowed (Figure 1). In the early 1980s, women's voluntary part-time employment rate exceeded men's by 14 percentage points; that gap narrowed during the 1980s by two percentage points (one-seventh of the overall gap) and stayed roughly constant during the 1990s. Similarly, women's involuntary part-time employment rate exceeded men's by three percentage points in the early 1980s, but fell to under one percentage point by 2003. Thus, as seen using other measures of economic success (wages; self-employment), the work patterns and labor market outcomes of men and women are becoming more similar.

### **The graying workforce: Greater vitality and the aging Baby Boom**

Social scientists and social commentators have spent five decades examining how the baby boom has changed society in both the economic and noneconomic terms. The impending retirement of the Baby Boom cohort portends changing norms about work in older ages, too.

Perhaps the most important work-related issue of relevance to both organizations and employees is the changing supply and demand of workers who in previous generations would have retired by age 65. With rising average incomes and wealth, for decades after World War II the trend was toward earlier and earlier retirement. The pattern of increasingly earlier retirement stopped in the mid-1980s; what is unclear is what will happen next.

In one camp are those who argue that increased lifespans, improved health and less generous Social Security benefits will lead older people to want to work for more years than in the past. Countering that is the research showing that previous episodes of increased health and changes in Social Security benefits did not materially impact the overall trends toward increased early retirement (Costa, 1999). Thus based on past experience alone there is no reason to believe that we should see increasing labor force participation among people 65 and older just because the Baby Boom are entering their golden years.

Yet there are a number of reasons why I believe that businesses should not assume that current employment practices, most of which are not designed with older workers in mind, are the best way to deal with the aging Baby Boom. First, changing norms about work and vitality mean that the Baby Boom are liable to be the first true exception to the trend toward earlier retirement – future generations likely will want to work more at older ages. Second, the increased prevalence of defined contribution retirement plans means that the fraction of the workforce that makes poor investment decisions may need to work more at older ages to make up for shortfalls in their expected retirement income.

Third, even if the trend toward early retirement does not reverse, if it stabilizes then a constant percentage of the population at each age will continue to keep working at least into their early 70s; as the baby boom cohort enters these ages that means a larger and larger percentage of

the total workforce will be over 65 and older. Indeed, instead of stabilizing, the recent data indicate *increasing* labor force participation among older cohorts, particularly men age 62-69 and women age 55-69 (Korczyk, 2004). Thus it is reasonable to expect greater demand for work by an elderly Baby Boom cohort who will account for an increasing fraction of the labor force.

**Bridge jobs.** Many older workers make the transition to retirement by working in another job and/or working part-time after spending much their careers in one full-time job (Gustman and Steinmeier, 1984; Quinn, Burkhauser and Myers, 1990). This may become more and more important as the Baby Boom enters the traditional retirement years, leading to an upsurge in demand for “bridge” jobs: in the 1990s, more than 20 percent of full-time older workers (with ten or more years of job tenure) took transition jobs (Chen, 2004). One interesting pattern in the recent data is that individuals leaving career jobs in larger companies are more likely to take on part-time jobs elsewhere, compared to workers leaving smaller companies (Chen, 2004). This suggests that large firms already may be missing important opportunities to offer part-time bridge jobs to older workers as a retention strategy for critical talent. Demand for such flexible employment options may increase significantly in the coming years.

### **Summary of findings**

Changes in wages and total compensation over the past three decades:

- There has been increased dispersion in wages throughout the economy. This means more wage winners and losers than in the last generation.
- Lower-wage, less-educated male workers have not fared well: their inflation-adjusted wages have fallen. Wages for men in the top half of the income distribution and for women throughout the income distribution, in contrast, have increased faster than inflation.

- Women's wage gains are partly due to greater educational attainment and occupational advancement – accounting for more and more professional degrees and jobs in previously male-dominated fields such as medicine, law and business/management. A generation ago half of all female college graduates went on to become teachers; today, less than ten percent.
- Racial and ethnic wage trends track the gender differences, for the most part. Black men saw moderate improvements and Hispanic men fell further behind to a moderate extent. Black and Hispanic women, in contrast, had continual gains.
- Benefits: falling healthcare coverage, shifting of healthcare costs among those covered by insurance, and the substitution of defined contribution for defined benefit plans all have shifted risks from firms to workers, thereby lowering the value of total compensation relative to what it would have been otherwise. These shifts are most pronounced for lower wage and less educated workers, which exacerbate the trends in wages.

Changes in job stability, hours of work and job loss:

- Older and less-educated men have shorter job tenure than in the past. Women, more-educated men and younger men have longer job tenure than in the past.
- Changes in hours of work mirror changes in the wage distribution: college educated workers are working longer hours, particularly at the top of the hours distribution; decreased hours among less-educated workers.
- Gender today appears to be growing less important in distinguishing hours of work than is education: college educated workers, regardless of gender, are increasingly more likely to have similar patterns of hours worked, relative to high school-educated workers.
- Demands on highly-skilled employees' time have increased over the past four decades. The opposite is true for lower-skilled employees.

Changes in contingent work:

- The fraction of the labor force working as temps has increased, though it remains relatively low at any given point in time. Employers' use of temps to screen for regular positions appears to have increased, which partly explains why a larger fraction of the workforce is a temp at some point during the year than at any given moment. There are about twice as many people working "on call" at any given moment – another reserve pool of flexible labor.
- Firms' use of independent contractors is even more widespread, accounting for 7-8 percent of all jobs. There is little evidence on the trend because of limited data. Even if the trend has been up sharply, most independent contractors appear to be happy with that kind of employment relationship and have job security on a par with "regular" employees.
- The trend toward retiring at earlier and earlier ages paused recently. It is too soon to say for sure whether the trend has stopped for good, will continue again, or will reverse itself. However, it is reasonable to conclude that a larger and larger fraction of the labor force will consist of people working past the "normal" retirement age and into their elderly years. This may create demand for jobs that "bridge" regular employment and retirement.

## **Conclusion**

What are the implications of these trends for individuals and for organizations?

The past thirty years have produced an increased shifting of economic risks onto workers, both in the form of greater dispersion in compensation and lower guaranteed benefit levels (both health and retirement). People today have to take care of themselves more so than in the past because organizations are shouldering less of the burden.

Older and less educated male workers, who traditionally had careers in organizations, have shorter job tenure and lower compensation than in the past. These losses have been

balanced by gains for women, for shorter-tenure men and for more-educated men. Thus the traditional longer-term career appears to have been replaced by shorter term engagements; some groups have gained while others have fallen behind where they were a generation ago.

The overall impression is that the employment relationship appears to have become more transactional, more “what have you done for me lately.” People are more likely than their parents were to be working as temps and independent contractors. They appear to have to more constantly prove their economic value to organizations – sufficiently high productivity to justify their compensation – to get and/or keep a “regular” job.

The national economic trends are consistent with organizational performance management and reward practices that more closely tie individual economic outcomes to organizational economic outcomes, leading to both more variability among workers who previously were rewarded similarly, and more variability for any given worker over time. It is not clear that these changes are necessarily good or bad from a productivity standpoint, particularly if the workers whose skills are in high(er) demand are willing to go along with a more transactional employment relationship. But if organizations increasingly are creating haves and have-nots among demographically equivalent workers, are they undermining the community and commitment that might be needed for long term success?

Given the relative lack of sophisticated HR metrics and analytics within organizations (Lawler, Levenson and Boudreau, 2004), it is uncertain whether organizations are targeting the right workers with rewards, development and career advancement. The pendulum may have swung too far toward differentiation. Would organizations guarantee themselves a better set of skills in the future – through both development and retention – if they were to go back to the earlier practices of less individually-based and more group-based rewards and development?

Even in cases where organizations correctly identify and reward the “right” employees, the trend appears to be toward greater and greater responsibility and demands being placed on their shoulders. What are the limits of this trend? At some point will these employees refuse this burden, opting instead for shorter-term engagements (that might be shorter than what the organization needs) or for not engaging at all in the first place? What then would be the long-run implications for organizations’ competitive advantage? These are important issues that organizations should take into account as they weigh their options on job and organization design in today’s labor market.

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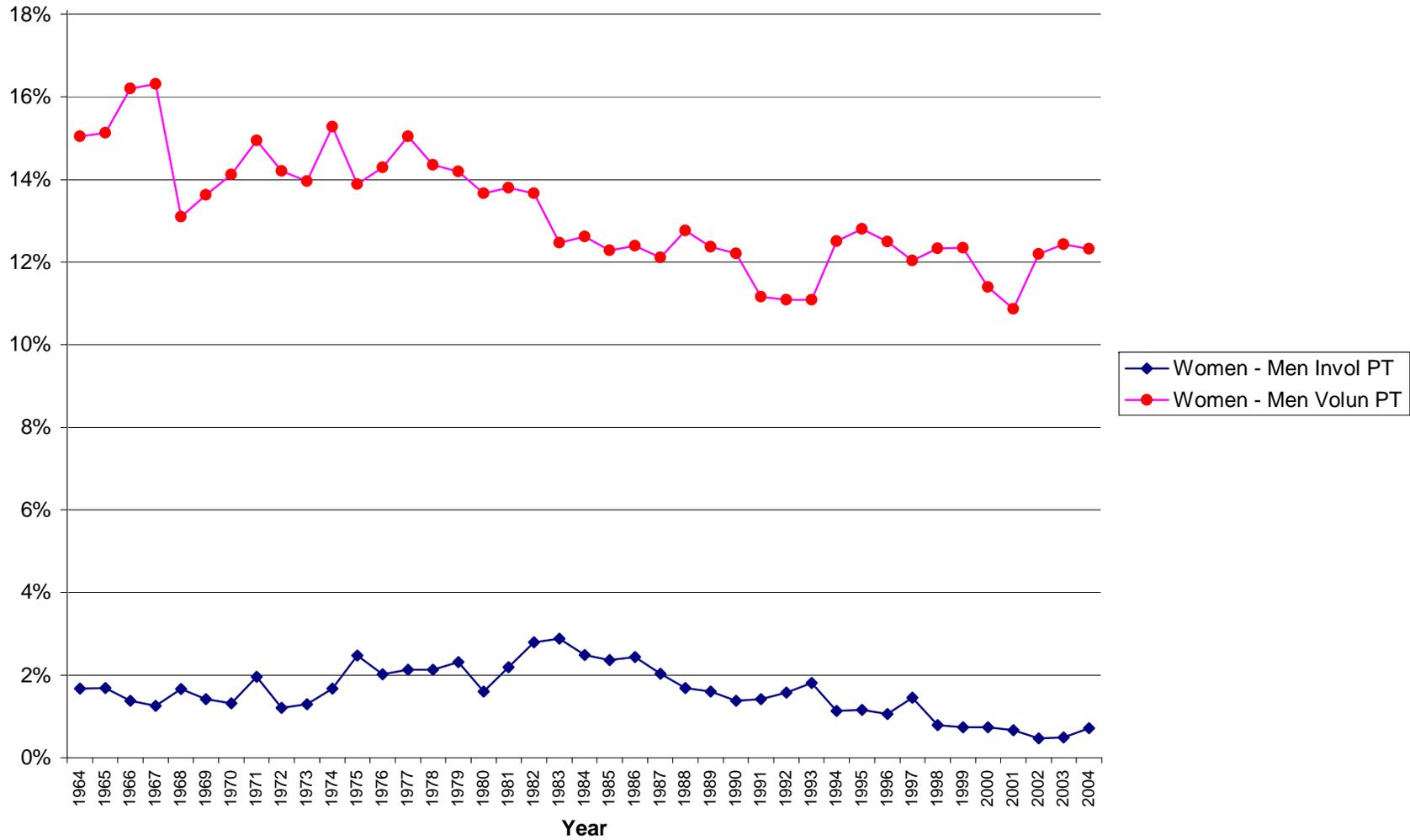
**Table 1: Changing real wage distribution for men and for women**

<b>Men</b>							<i>Male wage ratios at certain percentiles</i>	
<i>Percentile of the hourly wage distribution</i>							50-10	80-50
<u>Year</u>	<u>10<sup>th</sup></u>	<u>30<sup>th</sup></u>	<u>50<sup>th</sup></u>	<u>60<sup>th</sup></u>	<u>80<sup>th</sup></u>	<u>95<sup>th</sup></u>	<u>ratio</u>	<u>ratio</u>
1973	\$7.73	11.70	15.20	17.23	21.83	33.51	1.97	1.44
1995	6.58	9.88	13.93	16.28	22.87	37.29	2.12	1.64
2003	7.46	10.90	15.04	17.79	25.50	43.48	2.02	1.70
<i>Change in wages by percentile of the hourly wage distribution</i>							<i>Wage ratio change</i>	
Subperiod								
1973-95	-14.9%	-15.6%	-10.3%	-5.5%	+4.8%	+11.3%	+0.15	+0.20
1995-2003	+13.4%	+10.3%	+8.0%	+9.3%	+11.5%	+16.6%	-0.10	+0.06
<i>Overall wage change for men by percentile of the hourly wage distribution</i>							<i>Overall wage ratio change</i>	
Overall								
1973-2003	-3.5%	-6.8%	-1.1%	+3.3%	+16.8%	+29.8%	+0.05	+0.26
<b>Women</b>							<i>Female wage ratios, certain percentiles</i>	
<i>Percentile of the hourly wage distribution</i>							50-10	80-50
<u>Year</u>	<u>10<sup>th</sup></u>	<u>30<sup>th</sup></u>	<u>50<sup>th</sup></u>	<u>60<sup>th</sup></u>	<u>80<sup>th</sup></u>	<u>95<sup>th</sup></u>	<u>ratio</u>	<u>ratio</u>
1973	\$5.44	7.61	9.60	10.80	14.03	20.50	1.76	1.46
1995	5.80	8.09	10.69	12.32	17.88	28.56	1.84	1.67
2003	6.67	9.22	12.18	14.29	20.20	33.40	1.83	1.66
<i>Percentile of the hourly wage distribution</i>							<i>Wage ratio change</i>	
Subperiod								
1973-95	+6.6%	+6.3%	+11.4%	+14.1%	+27.4%	+39.3%	+0.08	+0.21
1995-2003	+15.0%	+14.0%	+13.9%	+16.0%	+13.0%	+16.9%	-0.01	-0.01
<i>Overall wage change for women by percentile of the wage distribution</i>							<i>Overall wage ratio change</i>	
Overall								
1973-2003	+22.6%	+21.2%	+26.9%	+32.3%	+44.0%	+62.9%	+0.07	+0.20
<b>Gender wage ratio</b>							<i>Ratio of gender wage ratios*</i>	
<i>Female / male wage ratios by percentile of the wage distribution</i>							50-10w / 50-10m	80-50w / 80-50m
<u>Year</u>	<u>10<sup>th</sup></u>	<u>30<sup>th</sup></u>	<u>50<sup>th</sup></u>	<u>60<sup>th</sup></u>	<u>80<sup>th</sup></u>	<u>95<sup>th</sup></u>		
1973	.70	.65	.63	.63	.64	.61	.89	1.01
2003	.89	.85	.81	.80	.79	.77	.91	.98
<i>Change in female / male wage ratio</i>							<i>Change in ratio of gender ratios</i>	
Overall								
1973-2003	+19	+20	+18	+17	+15	+16	+0.02	-0.03

Source: Real wage values taken from Tables 2.7 and 2.8 in Mishel, Bernstein and Allegretto (2005). Percentage changes and gender wage ratios are author's calculations.

\* Ratio of gender wage ratios: (i) (50-10 female ratio) / (50-10 male ratio); (ii) (80-50 female ratio) / (80-50 male ratio)

### Gender differences in part-time employment



**Figure 1**

(Source: Author's calculations from March Current Population Survey data)