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## **Labor Market Outcomes and the Transition to Adulthood**

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### **Introduction**

This paper focuses on the labor market outcomes that represent a key marker of the transition to adulthood—the attainment of economic stability and self-sufficiency. Achieving labor market success is a necessary condition for a successful transition to adulthood, even it is not sufficient to guarantee success in achieving other markers of adulthood discussed elsewhere in this volume. We document the divergent labor market experiences of young adult males and females over the past 30 years and the widening gap in labor market outcomes between less educated and more educated young adults. For young men, in particular those without a high school degree, it is now more difficult to earn enough to support a family than it was in the mid-1970s. Young women have achieved remarkable gains in earnings, employment and educational attainment since the mid-1970s. However, young women without a college degree, like their male counterparts, have had great difficulty achieving economic stability success.

Many researchers and the public assume that the labor market difficulties of today's young adults negatively affect other dimensions of the transition to adulthood. There are several pathways through which the changes in labor market outcomes that we document can affect the transition to adulthood. Employment and earnings prospects can influence decisions about how much education young adults will pursue, when they will move out of their parental homes, and

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when they will marry and have children. Without a sufficient and steady income, a young adult might delay marriage and might not be able to qualify for a home mortgage. The reduced economic prospects of young men might lead young women to stay in school longer, to focus more on their own labor market careers, and to delay family formation and childbearing. As discussed below, however, the empirical evidence does not support the view that delays in completing educational attainment, in establishing independent living arrangements, and in the age of first marriage were caused primarily by the increased labor market difficulties of less-educated men (Danziger and Rouse, 2007).

Our paper is organized as follows. We first review labor market changes since the end of World War II. Then we document how labor market changes since the mid-1970s have affected the extent to which young adults have achieved economic stability and self-sufficiency. We then discuss how these changes may have contributed to delays in other markers of the transition to adulthood. We conclude that attaining economic self-sufficiency is necessary for a successful transition to adulthood even if its achievement does not guarantee success on other markers of adulthood. We document public policy reforms that might improve the labor market fortunes of young adults, in particular those with no more than a high school degree, and facilitate the transition to economic stability and self-sufficiency.

### **Overview of Labor Market Changes**

The quarter century following World War II was a “golden age” for all workers and their families. Employment and earnings grew rapidly for workers in all educational groups, especially for male workers with a high school degree or less. During this period, recessions were relatively short and mild. Well-paying manufacturing jobs allowed most men to support a

family on a single income, and the percentage of men with jobs that provided pensions and subsidized health insurance increased (Danziger and Gottschalk, 1995).

This era of steady economic growth and rising real wage rates that raised living standards for most workers had ended by the mid-1970s. Bell et al. (2007) show that in several industrial countries, Canada, the United Kingdom, Germany and the U.S. among them, the labor market prospects of young adults worsened between the mid-1970's and the end of the 20<sup>th</sup> century. In most of these countries, a falling percentage of young adults, particularly men, were able to earn an income sufficient to independently support a family.

Since the mid-1970's, the U.S. labor market has generated increased inequality in earnings and family incomes. At the same time, some government safety net programs have eroded--for example, a smaller percentage of the unemployed receive unemployment insurance and a smaller percentage of single mothers receive cash welfare than was the case in the mid-1970's. A series of labor market changes contributed to increased hardships for many workers, especially males with no more than a high school degree. These include computerization and other labor-saving technological changes that reduced employer demand for less-educated workers, declines in the inflation-adjusted minimum wage, declining percentages of workers covered by union contracts, and increased globalization. Goldin and Katz (2008) attribute almost two-thirds of the increased inequality to technological innovation that favored workers with higher skill relative to those with lower skills. As a result, young men with no more than a high school degree now have lower employment rates, lower real wages, and less access to private pensions and employer-subsidized health insurance than did similar young workers in the mid-1970s.

Most of the economic gains of the last several decades accrued to the richest families and workers (Congressional Budget Office, 2008). Figure 1 shows rising inequality in hourly wage rates<sup>2</sup> from 1979 to 2007 among men and women between the ages of 25 and 34.<sup>3</sup> For both young male and female workers, wages for the top 10 percent outpaced wage growth for workers at the median and the 20<sup>th</sup> percentile of the distribution. Wages for the highest female earners grew by 35 percent, from \$21.29 to \$28.75 per hour, compared to 13.7 percent for the median female worker, from \$12.31 to \$14.00, and only 4 percent for those at the bottom 20 percent, from \$8.65 to \$9.00. Among men, wages grew by 10 percent for the highest earners, from \$29.57 to \$32.50 per hour, fell 14.5 percent for the median worker, from \$18.30 to \$15.65, and fell by 19 percent, from \$12.38 to \$10.00, for those at the 20th percentile.

Even though the labor market prospects of young women have improved--more young women are now working and their earnings have increased both relative to inflation and relative to those of young men, women continue to earn less than men. The median young female worker earned 89 percent as much as the median young male in 2007 (\$14.00/\$15.65, Figure 1).

Whereas the improvements in economic well-being in the quarter century leading up to the mid-1970s had similar effects on the transition to adulthood for most workers, the employment and earnings changes since that time have affected young adults in ways that differ by gender and education. It now takes young male high school graduates longer to become self-sufficient and earn enough to support a family by working steadily in a job with good wages and benefits. Young women are now more likely to attain self-sufficiency than in the mid-1970's.

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<sup>2</sup> These wage rates were computed by the authors from the Outgoing Rotation Group (ORG) files of the Current Population Survey (CPS), available annually starting in 1979. All data in this paper are adjusted for inflation using the CPI-U-RS, which corrects for the potential overstatement of inflation in the standard inflation series, the CPI-U.

<sup>3</sup> In addition to being the first year of the ORG data, 1979 is near the business cycle peak (a recession started in early 1980). The most recent recession started in December 2007. Thus, a comparison of 1979 and 2007 reflects long-run trends between two business cycle peaks, not changes due to differences in business cycle conditions.

The severe recession that started in December 2007 and the simultaneous large declines in the value of homes and the net worth of families imply that the economic prospects of young adults in the next several years will be even worse than the data presented here suggest. Workers with the least labor force experience, such as young adults, are disproportionately hurt during recessions (“last hired, first fired”). And, some young adults who rely on parental support may find that the declining value of their parents’ net worth will require them to rely more on their own earnings and less on parental support. The full negative labor market effects due to this recession are not yet known. It is very likely, however, that the employment rates and wage rates of young adults will be lower in 2010 than they were in 2007 (the last year of data available when this paper was completed).

### **Trends in Labor Market Outcomes of Young Adults since the mid-1970s**

A young adult’s ability to work steadily and become economically self-sufficient is a primary, if not the most important, marker of a successful transition to adulthood. We describe changes in median earnings of young workers, changes in the proportion working in low-wage jobs, changes in employment rates and job stability, and changes in the returns to schooling. We describe how these changes differ by education, gender and race/ethnicity.<sup>4</sup> Over the last three decades, the two primary labor market trends for young adults are the declining relative economic status of those with at most a high school degree compared to those with a college degree or more, and the increasing relative economic status of women relative to men.<sup>5</sup>

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<sup>4</sup> We do not distinguish between native-born and foreign-born Hispanics. Differences between these two groups are discussed in the paper in this issue on immigrant youth.

<sup>5</sup> While ORG wage rates are first available in 1979, the March CPS has data on annual earnings from the mid-1960s onward. We analyze annual earnings beginning in 1973, as November 1973 was a business cycle peak; 1973 was also the year in which the lowest annual poverty rate was recorded by the Census Bureau. Our results would not differ qualitatively if we began the analysis for annual earnings in 1979.

We focus on young adults between the ages of 25 and 34. By these ages, most young adults will have completed their schooling and will be focused on establishing themselves in the labor market. Edelman, Holzer and Offner (2006) note that younger male high school graduates and dropouts have fared even worse economically than the age group discussed here. They define men between the ages of 16 and 24 who are neither enrolled in school nor employed at the time of the March CPS as “idle,” an indicator of extreme labor market problems. We replicate their analysis and find that the 2008 idleness rate among white men was 12 percent, among Black men was 21 percent, and among Hispanic men was 15 percent. In 2008, among women ages 16 to 24, 13 percent of whites, 21 percent of Blacks, and 26 percent of Hispanics were idle.

Andrew Sum (2009) notes that teenagers now have more difficulty finding summer jobs than was the case in previous decades. In July 1973, the summer employment rate for males and females between the ages of 16 and 19 was 52 and 40 percent, respectively.<sup>6</sup> By 2007, these rates had fallen to 34 and 36 percent for 16 to 19 year old men and women, respectively. Thus, while we focus on 25-34 year olds, economic trends for younger workers are similarly weak.

Median Annual Earnings by Education, Gender, Race/Ethnicity.<sup>7</sup> The median annual earnings (in constant 2007 dollars) of males between the ages of 25 and 34 who worked at some time during the year fell by 21 percent between 1973 and 2007 (from \$41,712 to \$33,000), whereas the median earnings of female workers increased by 62 percent (from \$16,685 to

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<sup>6</sup> Sum focuses on changes between 2000 and 2008. We computed the July employment rates for 1973 and 2007, two years near the business cycle peak, using his methodology and data from the Bureau of Labor Statistics.

<sup>7</sup> There is disagreement about how best to adjust for inflation. As mentioned, we use the CPI-U-RS, a more conservative inflation index than the official CPI-U. Some economists contend that the CPI-U-RS also overstates inflation. If this were true, our analyses understate real wage and earnings growth, and would tend to exaggerate negative growth in wages. Lerman (1999 and 2003) also suggests that changes in real earnings of the less-educated would be less negative if the analysis accounted for increased immigration by comparing the earnings of immigrants in their country of origin with their earnings in the U.S. Note that inflation adjustments do not affect comparisons by race, gender and education.

\$27,000). This large annual earnings increase for young women was due both to their increased employment and to their increased real wages (the latter were shown in Figure 1).

In Figure 2, we compare median annual earnings of young high school graduates by race/ethnicity and gender in 1973 and 2007. For white non-Hispanics, black non-Hispanics and Hispanics, the inflation-adjusted median earnings of male high school graduates fell by 26, 25, and 29 percent, respectively (left side of Figure 2).<sup>8</sup> For female high school graduates (right side of Figure 2), the median for whites, blacks, and Hispanics increased by 37, 7, and 7 percent, respectively. Thus, for each race/ethnic group, the earnings of young women increased relative to those of young men.

Figure 3 shows a similar pattern among young workers who are college graduates. The earnings of young women increased relative to those of young men for each of the three race/ethnic groups. The medians increased for women, but were mostly unchanged for men.

A comparison of the left sides of Figures 2 and 3 shows the widening educational differential for each race/ethnic group, holding gender constant. For example, in 1973, white male high school graduates earned 83 percent as much as white male college graduates (\$41,712/\$50,055); by 2007, they earned only 62 percent as much (\$31,000/\$50,000).

The Extent of Low-Wage Work. Trends in the median do not reveal how workers at other points in the distribution fared during a period of rising inequality. Thus, we examine changes in the percent of young adults who are “low-wage workers,” which we define as those earning less than \$9 per hour in 2007 dollars. This wage exceeds the 2007 minimum wage, \$5.85, and corresponds to the 15<sup>th</sup> percentile of the 2007 wage distribution for all young adult

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<sup>8</sup> Data in the figures refer to non-Hispanic Blacks and non-Hispanic Whites; for brevity, we use the terms Blacks and Whites. CPS sample sizes are too small to report trends for American Indians or Asian Americans.

workers. Working full-time, full-year (40 hours, 52 weeks) at this wage yields \$18,720, which falls between the official Federal poverty lines for a family of three and four persons.<sup>9</sup>

Figure 4 shows that, between 1979 and 2007, the percent of young workers who earned less than \$9 per hour increased for men in each of the race/ethnic groups and declined for women across the board. White males were 3 percentage points more likely to have low wages, whereas white women were 7 points less likely. Young Hispanic males were much more likely than white and black men to be low earners in 2007, and had the largest increase. Among young women, the declines were greatest for whites. Compared to young women in 1979, young women in 2007, especially the mothers of young children, had more education and more labor force experience and thus earned higher wages (Cancian and Reed, 2009).

Employment Rate Differences by Education, Race/Ethnicity and Gender. The level and trends in the employment rate (the percentage of young adults who worked at least one week in the calendar year) also differ by gender. Among all young men, the employment rate fell by 6.6 percentage points between 1973 and 2007, whereas for young women, the rate rose by 16.1 points. The gender gap in employment, therefore, fell from 35.4 to 12.7 points over this period.

Juhn, Murphy, and Topel (1991, 2002) document an increase in the proportion of the year workers spend either unemployed or out of the labor force—the non-employment rate. When we use this definition for young adult males, the percent of the year non-employed increased from 7.2 percent to 12.5 percent from 1973 to 2007. For young adult women, the fraction of the year in non-employment declined from 55 to 38 percent.<sup>10</sup> Less-educated black men have less

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<sup>9</sup> Results were similar when we used an alternative measure of low-wage work—the percent of workers who earn less than the poverty line for a family of four in each year (results available from the authors upon request).

<sup>10</sup> Following Juhn Murphy and Topel, we define the employment rate as the fraction of weeks during the year in which a young adult was employed. The non-employment rate is the percent of the year, also in weeks, spent unemployed or out of the labor force. Data by detailed year and demographic groups are available upon request from the authors.

attachment to the labor force than other men or women and their non-employment has increased the most over time. Black male high school dropouts between the ages of 25 and 34 spent 18 percent of the year on average non-employed in 1973, but 49 percent in 2007.<sup>11</sup>

Juhn, Murphy, and Topel attribute part of the rise in male non-employment to the lower real wages they were offered by employers who, in part because of labor-saving technological changes, reduced their relative hiring of less-educated men. Elsby and Shapiro (2009) suggest that choosing to work is analogous to getting on a “wage escalator,” whereby workers earn higher wages with each year of labor force experience. Because the “wage escalator” flattened after the mid-1970s, the payoff to work over a lifetime has fallen substantially for the less-educated.

Figure 5 shows trends in the employment rate for young high school graduates (defined as the percentage who worked at any time in the calendar year) by race/ethnicity and gender from 1973 to 2007. Among men, the employment rate of black high school graduates fell by 23 percentage points compared to a decline of 7.2 points for whites and a decline of 4.4 points for Hispanics. As a result, male Hispanic high school graduates in 2007 worked more than their white and black counterparts.

Employment rates increased across the board for each of the three groups of female high school graduates. Between 1973 and 2007, the male/female employment gap shrank from 39.6 to 16.8 percentage points for whites and from 31.8 to 25.3 points for Hispanics. By 2007, the gender gap in employment had been eliminated for black high school graduates-- employment rates were 75.5 and 72.7 percent, respectively for females and males.

One reason for the larger decline in employment for young black men relative to that of young white men is the dramatic increase in incarceration rates in the last three decades and the

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<sup>11</sup> Also see Corcoran and Matsudaira (2009) for analysis of non-employment by birth cohort and race.

negative effect of a criminal record on an employer's willingness to hire (Holzer, Stoll and Raphael, 2004).<sup>12</sup> Raphael (2007) reports that in 2001, among all adult men, 2.6 percent of non-Hispanic whites, 16.6 percent of non-Hispanic blacks, and 7.7 percent of Hispanics had served time in prison. Among younger cohorts, incarceration rates are higher--over two-thirds of black male high school dropouts, and one-third of those with less than a college education, had been incarcerated by the time they reached their early 30s (Western and Wildeman, 2009).

Holzer (2007) finds that the increased incarceration accounts for an employment decline among black men of 4 to 9 percentage points. Wilson (1987, 2009) concludes that young black men also fared worse than other young men because of their lower educational attainment (skills mismatch), their residential concentration in the inner city during an era when jobs were moving to the suburbs (spatial mismatch), and because of persisting employer racial discrimination, often reflected in how firms advertise for and recruit entry-level workers.

Job Instability. For young adults, fluctuations in employment and earnings are likely to affect the transition to adulthood.<sup>13</sup> Unlike more experienced workers, young workers have had little time to build savings that they can draw down when they lose a job, making it difficult for them to smooth out consumption. Economists use the term "churning" to refer to movements from employment to unemployment (involuntary job changes) and movements from one job to another (voluntary job changes). The former are more often associated with negative outcomes than the latter. In recent years, among lower-wage workers, higher wage increases are more likely to occur with voluntary movement from a job at one firm to a job at another firm than by staying with the same employer (Johnson and Corcoran, 2003).

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<sup>12</sup> Incarcerated men are not surveyed in the CPS, the main data source for this paper. If they were counted, the employment rate would be even lower and the trends more negative.

<sup>13</sup> We concentrate on jobs instability rather than earnings instability. Fluctuations in earnings and income have also increased in recent decades (Dynan, Elmendorf, and Sichel, 2007).

Regardless of the subsequent wage changes associated with churning, job instability can lead young adults to postpone marriage or childbearing decisions and to reduce the likelihood of independent living. Increased churning makes purchasing a home or having a child a riskier decision by raising the uncertainty of future employment and earnings.

The greater the extent of churning, the shorter the amount of time a worker spends with a single employer. Farber (2007, 2008) analyzes the evolution of job tenure with a given firm for recent cohorts and finds that between 1973 and 2006, average private sector job tenure for males, controlling for age differences, fell almost 25 percent, whereas female job tenure remained constant.<sup>14</sup> The proportion of males between the ages of 35 and 64 in long-term jobs, defined as tenure of at least 10 years, fell from about 50 percent to 35 percent between 1973 and 2006. Farber concludes that the “company man” is no longer a staple of the labor market as it was for earlier generations.

Farber (2007) also documents that job churning for young workers is high. Between 1973 and 2006, the fraction of 20 to 29 year olds working at private-sector jobs with tenure of less than one year was about 34 percent. Older workers are less likely than younger workers to have job tenure of less than one year, suggesting that higher job churning has mainly affected the young over the past 30 years.

Although employment instability can delay the transition to adulthood, job churning in young adulthood might lead to better outcomes in later years. For example, many voluntary job changes from one firm to another are associated with higher wages in the long run. On the other

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<sup>14</sup> Stevens (2005) finds that the average tenure of the longest job held by male workers, ages 58 to 62, was constant at about 22 years in both 1969 and 2002. Her results are not inconsistent with the possibility that workers today experience substantial job churning in young adulthood, delaying the transition to adulthood, but eventually settle into a steady job. Also, the latest cohort Stevens examines was between the ages of 25 and 34 in the 1960's, a very different labor market than the one facing young men today.

hand, increased involuntary job changes for young adults are associated with slower accumulation of labor market skills and experiences, which can reduce wages in the long run.

Neumark (2002) evaluates job churning and finds that it has negative effects on future employment and earnings. An additional year of job tenure in the first five years after leaving school leads to an increase, on average, in adult wages of about 7 to 13 percent for men and 12 to 24 percent for women. One additional job held in the first five years after leaving school reduces wages by 8 percent for males. Holzer and Lalonde (1999) also find that shorter job tenure and job instability for young workers reduce wage growth and employment opportunities in later adulthood. The empirical evidence, therefore, suggests that young adults now face more uncertain economic prospects that may have long-lasting effects on employment and earnings.

Educational Attainment by Gender. The increased relative earnings and employment of women are due, in part, to their broader access to jobs, especially managerial and professional positions. In addition, increased economic prospects for women are due in part, to their increased educational attainment, which results in part from their improved labor market opportunities. Between 1973 and 2007, among 25 to 34 year olds, college completion increased from 16.4 to 35.9 percent for women, but only from 23.7 to 28.9 percent for men. Thus, in 1973 young women were 7.3 percentage points less likely to have graduated from college as young men; by 2007, they were 7 points more likely. College completion for women overtook that of men in the late 1980s (Kane, 2006).

Some researchers have suggested that the increased economic status and increased educational attainment of young women relative to those of young men have contributed to delays in marriage and childbearing and increases in divorce rates and single motherhood (Ellwood and Jencks, 2004). Goldin (2006) labels changes, beginning in the late-1970s, in the

way that women view employment, education and family as “the Quiet Revolution.” She suggests that women prior to this time were secondary earners who worked if their families needed extra money, but that women now work because employment defines their “fundamental identity and societal worth (p.1).”

Goldin notes that increased divorce rates and easier access to contraception have contributed to women spending a smaller fraction of their adulthood as wives and contends that expectations of being married for fewer years led women to invest more heavily in human capital, such as education in career-oriented subjects. Bailey (2006) attributes the rise in women’s educational investment to greater access to contraception, particularly the birth control pill. Goldin, Bailey, and Fitzpatrick and Turner (2007) all point to major shifts in social norms regarding women’s roles and labor market opportunities, along with economic changes, that contributed to increased female educational attainment.

Increasing returns to higher education. Although there have always been substantial differences in labor market outcomes for young adults by educational attainment, they have widened in recent decades. Consider the difference between the wages of high-school and college graduates in their first 7 years after entering the labor force. In 2007, males in entry-level jobs with a college education earned 79 percent more than recent-entrant males with a high school degree; for females, this difference for recent entrants was 92 percent. In 1973, these educational premia were only 33 percent for males and 52 percent for females (Mishel et al., 2008). In addition, the gap in employment rates between young males with a college education and high school graduates increased from 0.2 to 5.8 percentage points between 1973 and 2007. College-educated workers are also less vulnerable to recessions, as they are not the marginal workers generally laid off.

Heckman, Lochner, and Todd (2007, 2008) estimate that the internal rate of return to a college degree compared to a high school degree increased from 13 to 18 percent between 1970 and 2000 for all white workers and from 14 to 24 percent for all black workers. Card and Lemieux (2001) show that for workers between the ages of 26 and 35, college graduates earned 20 percent more than high school graduates in 1975, but 40 percent more in 1995.

**Given the increased payoff to college, why haven't more males completed college?**

Economic theory predicts that the growing gap in economic status between less-educated and more-educated workers would lead a greater percentage of young adults (especially men) to seek a college degree. Yet, Autor, Katz, and Krueger (1998), Ellwood (2001), and Card and Lemieux (2001) all document a slowdown in the growth rate of the supply of college graduates. Goldin and Katz (2008) argue that increasing educational attainment until the 1950's caused the supply of skilled labor to outpace its demand; the declining growth in educational attainment, particularly among males, reversed this trend from the 1970's onward, leading to the widening wage gaps between less-educated and more-educated workers.

Given the widening wage and employment gaps, why haven't male college graduation rates increased more over the last three decades? Some analysts contend that rising tuition costs and reductions in grants have made college-going more difficult for young adults whose parents have low socioeconomic status. The National Center for Education Statistics (2005) tracked the educational attainment of eighth graders in 1988 through 2000 (when most were 25 and 26 years old). Among those who scored in the bottom 25 percent on a mathematics test during high school, 30.3 percent from high socioeconomic (SES) families completed a bachelor's degree or more, compared to only 2.9 percent from the lowest SES families. Among those with the highest

high school math scores, 28.8 percent from low SES families completed college compared to 74.1 percent from the most advantaged families.<sup>15</sup>

Kane (2006) argues that increased tuition and the decreased generosity of tuition subsidies and lower borrowing limits for student loans explains why college attendance has not increased more in response to the increased returns to education. He estimates that a \$1000 increase in college costs leads to about a 5 point decline in college enrollment.

Although the literature on the effects of federal Pell grants on college going is mixed, other public tuition subsidies substantially affect enrollment. Dynarski (2003) finds that college enrollment declined by 6 percentage points after the cessation of a tuition benefit for students who received Social Security benefits after a parent died. Deming and Dynarski (2009) find that broad-based, as opposed to highly-targeted, programs that have simple application procedures have the largest effects on enrollment. Thus, expanding access to Pell grants and simplifying the process for apply for financial aid could increase college enrollment.

If increasing college costs and/or falling subsidies have slowed enrollment, then some young adults who want to attend college either cannot find financing or are unwilling to borrow.<sup>16</sup> The most common source of educational finance is parental support. Thus, increased inequality in parental income since the mid-1970s, particularly the declining real earnings of fathers with no more than a high school education, has reduced the ability of some parents to support college costs.

Belley and Lochner (2008) highlight the increased association between family income and whether a young adult goes to college. They find that cognitive ability, as measured by the

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<sup>15</sup> Low socioeconomic background is defined by the NCES as the bottom quartile of a composite index of family income, parents' education and occupation; high SES is the top quartile.

<sup>16</sup> Keys and Cadena (2008) provide a behavioral explanation for why some college students do not want to incur debt and hence do not accept interest free student loans.

Armed Forces Qualification Test (AFQT), is the major correlate of educational attainment, but that its importance remained constant between 1979 and 1997. They estimate a 9 percentage point difference in college enrollment between youth in the 1979 cohort with family incomes in the lowest vs. highest quartiles, after controlling for test scores, but a 16 percentage point gap among the 1997 cohort.

One explanation for the increasing importance of family background on education is that low-income young adults face impediments to borrowing, known as “credit constraints.” The evidence that more students are delaying college completion and/or maintaining jobs while attending school is consistent with binding credit constraints and may help to explain why enrollment has not increased more in response to the increased returns to education.

Fitzpatrick and Turner (2007) conclude that credit constraints “prevent or delay students from earning degrees through a full-time, direct course of study.” They show that the fraction of students who combine work and college classes has increased, as has enrollment of “older” undergraduates. Among undergraduates 24 and older, almost 70 percent now combine work and classes. Belley and Lochner find that college students from higher-income families are less likely to work than those from lower-income families. They find mixed evidence, however, on the connection between family background and a delay in college education.

Carneiro and Heckman (2002, 2005) reject the credit constraints hypothesis and attribute most of the positive relationship between college enrollment and family income during high school to differences in the cognitive ability of students, which is correlated with parental income across childhood and which is evident in early childhood. To the extent that credit constraints operate, Heckman and Carneiro suggest that they mainly affect lower-ability students from low-income families who cannot secure financing for two-year colleges.

The American Council on Education (2004) reports that the proportion of college graduates who incurred college debt increased from 49 to 65 percent between 1993 and 2000, with much of the increase coming from students with high family incomes because it has become easier for them to borrow.<sup>17</sup> Although a larger proportion of college students now finance education through loans, Baum and O'Malley (2003) find most graduates feel that the benefits of taking on the debt outweighed the debt burden.<sup>18</sup> Therefore, if credit constraints do reduce educational investments with a high rate of return, then young adults should be willing to incur even greater college debt than is now the case if the constraints were removed. On the other hand, even if credit constraints are not binding, there may still be a role for public policy to encourage educational attainment through subsidized loans and grants, given the strong association between family SES and children's educational attainment.

The increased importance of parental income and parental education on college completion and the higher returns to education have major implications for policies regarding student loans and tuition waivers. Most high ability students enroll in college, regardless of family income. However, some academically-qualified students from low-income families postpone or forgo college even though it would increase their future employment and earnings.

### **Why are women going to school longer, working more and having fewer children?**

Goldin (2006) suggests that women's changing expectations and behaviors led to their increased educational attainment, increased labor force participation and delayed age of first marriage and childbirth--the key changes associated with the lengthening of the transition to adulthood. She does not consider these changes in women's behaviors as being direct responses

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<sup>17</sup> The 1992 Higher Education Act allowed students, regardless of need, to access unsubsidized loans.

<sup>18</sup> This finding contradicts Draut (2006) who argues that young adults are overburdened by debt. Even though a greater percentage of students are taking student loans, there is little evidence that recent graduates are overburdened by college debt.

to the declining labor market prospects of young men. However, the timing for both changes is similar. Men's labor market prospects began declining in the mid-1970s. Goldin's "quiet revolution" in women's employment, education and family behaviors began in the late 1970s.

According to Goldin, for the last three decades, young women have formed their adult identity before marriage, whereas young women in previous generations married at an early age and formed their adult identity after marriage. She argues that young women are now active economic actors "who bargain somewhat effectively in the household and labor market." Most are no longer passive actors whose employment decisions are made after those of their husbands.

As more young women came to expect that their own employment and earnings would be important in their own right, not as secondary to those of their husbands, more sought college and post-graduate degrees. Buchman and DiPrete (2006) note that the share of all bachelor's degrees earned by women increased from 35 to 58 percent between 1960 and 2004. In the late 1960s, women comprised only 5 percent of entering law students, but they comprised 50 percent by the early 2000s; similar increases are also found in medicine (Goldin, 2006).

Buchman and DiPrete suggest that higher educational attainment and declining gender discrimination in the labor market allow some women to delay or forego marriage because they have more difficulty finding a similarly-educated husband and have more ability to achieve economic independence on their own. This is similar to Goldin's view that higher expectations about women's abilities and opportunities have led them to seek more education, which has led to more labor force attachment over the life course and delays in marriage and childbearing.

### **Have the declining economic fortunes of young men reduced their marriage prospects?**

As documented above, the labor market prospects of less-educated men of all race/ethnic groups were worse in 2007 than they were in the mid-1970s. To what extent have the economic

difficulties of young men contributed to the family structure changes associated with the transition to adulthood? William Julius Wilson, in The Truly Disadvantaged (1987) suggested that labor market changes such as the decline in manufacturing jobs, the suburbanization of employment, and increased employer demand for educated workers reduced the probability that less-educated, inner-city males had good jobs that could support a family. This made them less marriageable and contributed to declines in marriage and increases in non-marital childbearing. However, despite the correlation between increasing non-marital childbearing and male labor market problems, researchers have had a difficult time establishing a causal link.

Ellwood and Jencks (2004), in a comprehensive review, conclude that “no consensus has emerged about why American families changed or why the amount of change varied by race and education (p.3).” They conclude that even though declines in men’s economic opportunities are associated with reduced or delayed marriage, the actual declines in men’s earnings have not been large enough to explain the large delay in marriage and substantial increase in nonmarital childbearing, even among the least educated. This is because “marriage patterns have changed nearly as much for advantaged and employed males as for others (p.60).”

### **How do labor market changes affect the living arrangements of young adults?**

Labor market difficulties—unstable employment, low wages--can constrain a young adult’s decision to move into or out of his/her parental home. Evidence about this connection however, is also mixed. It is difficult to sort out the causal effects of economic changes, because living arrangement choices have also been affected by noneconomic factors. Changes in social norms have made it more acceptable to marry later, to cohabit with a partner of the same or opposite sex, and to be a single parent. The delay in marriage means that more young adults now

live either with parents, with roommates, on their own, or cohabit with a partner, and that fewer live with a spouse.

Matsudaira (2009) examines changes in living arrangements of young adults and documents that since the 1960's, a greater percentage of young adults have lived at home. However, there has been a much larger increase in the percentage living with neither parents nor spouses. Between 1960 and 2000, among males between the ages of 25 and 29, there was a 3 percentage point increase in living with parents (from 15.1 to 18.2 percent), but a 26.3 point increase in living without a parent or spouse (from 13.6 to 39.6 percent). Most of this decline in marriage (from 71.3 to 42.3 percent), resulted in a greater percentage of young males cohabiting, living with roommates, or living on their own.

Matsudaira examines the correlation, by region, between the probability of living with at least one parent and two labor market measures, the employment rate of 35 to 44 year olds and average wages. He finds that a 1 percentage point increase in the region's employment rate decreases the likelihood that 19 to 24 and 25 to 29 year old males live with their parents by 1.28 and 0.61 percentage points, respectively. For females, the estimated effects are smaller, with 19 to 24 and 25 to 29 year olds 0.61 and 0.26 percentage points less likely to live at home, respectively. Thus, in a booming economy, young adults are more likely to leave home.

Hill and Holzer (2008) analyze the relationship between labor market outcomes and living arrangements by comparing two cohorts of 20 to 22 year olds. They find a weaker relationship between economic conditions and living arrangements than did Matsudaira--for all race, gender, and educational groups, 20 to 22 year olds in 2002 compared to those in 1984 were less likely to be married, more likely to live at home, and more likely to cohabit. Hill and Holzer show that for each cohort, those from higher-income families were more likely to live at home

than those from other families, suggesting that living arrangement choices were not primarily determined by finances. They conclude that declining male earnings and employment cannot explain the large declines in marriage rates and changes in living arrangements for young adults.

Kaplan (2009) analyzes data for a sample of young adults who never attended college to determine the extent to which labor market fluctuations caused them to move into and out of their parental homes. Less-educated young adults have unstable labor market outcomes—the annual rate of employment separations is 30 percent and there are significant changes in earnings from month-to-month. He finds that young adults are 54 percent more likely to move back home if they are not working and are 15 percent more likely to leave home if working. These living arrangements are dynamic ones—of those who moved out of their parental home, almost 40 percent moved back at some point by age 22. Because of increasing labor market volatility for the less-educated, having the ability to live with parents offers some financial insurance against labor market risks.

### **Policies to improve labor market outcomes and facilitate the transition to adulthood**<sup>19</sup>

Since the mid-1970s, labor market changes have reduced the employment and earnings of less-educated males. And, the economic prospects of young workers are not likely to improve substantially in the near future, because of the severe recession that began in December 2007. However, there are public policy reforms that can raise employment and earnings for young adults and increase their likelihood of making a successful transition to adulthood.

Levy and Temin (2007) make the case that the slow growth in earnings and rising inequality since the 1970's have been fostered by changes in economic policies. They label the policies emanating from the New Deal and World War II as the “Treaty of Detroit.” These policies—including a relatively high minimum wage, support for strong unions, and progressive

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<sup>19</sup> This section draws heavily from Cancian and Danziger (2009).

taxes—helped to constrain earnings inequality and to promote broadly-shared productivity. The “Washington Consensus” that emerged in the mid-1980s reflected different policies that discourage unionization, permit a low and falling minimum wage, and emphasize inflation-fighting and budgetary discipline. These policies contributed to labor market changes that fostered the wage stagnation and rising inequality we documented.

There are several public policy reforms that can improve the economic prospects of today’s young adults by making work pay and by expanding employment; other reforms can increase the educational attainment, and hence the earnings, of the next generation of young workers. The Obama Administration has proposed several reforms, consistent with the ones that emerge from the literature that would raise the employment and earnings prospects of young adults having a difficult time achieving labor market success. These reforms were included in the American Recovery and Reinvestment Act (ARRA) of 2009 and the President’s budget proposals for FY2010.

Making Work Pay for Low-wage Workers. Achieving this goal requires changes in government regulations about wages and working conditions (such as the minimum wage) and increases in work-related income supplements for low-wage workers (such as the Earned Income Tax Credit). Because the 1996 federal welfare reform greatly reduced access to cash welfare, there is an additional need for policies to provide work opportunities for those who are willing to work but cannot find steady employment either because of poor economic conditions or because they face substantial employment barriers (such as physical health and mental health problems, or criminal records) that make it difficult for them to work steadily even when unemployment rates are low. Work will obviously pay for a greater percentage of young adults when the economy is growing and jobs are available. However, the experiences of young adults during

the economic booms of the 1980s and 1990s showed that a growing economy on its own was necessary, but not sufficient, to raise the earnings of many less-educated workers.

One way to make work pay is to foster a labor market that rewards workers with the same skills equally, without regard to race, ethnicity, or gender. As noted, there has been substantial progress in reducing gender discrimination in the labor market in recent decades, as women's employment and earnings have increased relative to those of men. And, compared to the 1960s, racial and ethnic earnings disparities have narrowed. However, disparities in employment and wages between white non-Hispanics and racial and ethnic minorities remain large and some have widened. As mentioned, young black men face substantially reduced labor market opportunities relative to similar white men; this both reflects and contributes to high levels of incarceration (Western and Wildeman 2009). Reducing labor market discrimination should be a higher priority for public policy than it has been in recent years.

Several other policy changes can raise the wages of less-educated workers. Consider the federal minimum wage. Between the early 1960s and early 1980s, the minimum wage in 2009 dollars (inflation adjusted using the CPI-U-RS) ranged between about \$6.50 and \$8.00 per hour, about 40 to 50 percent of the average wage of nonsupervisory workers. Because Congress increased the minimum wage only a few times in recent decades, it ranged between \$5.15 and \$6.75 (in 2009 dollars) between the late 1980s and 2009. The minimum wage was constant in nominal terms at \$5.15 per hour from 1997 to 2007 when Congress passed a three-part increase to \$5.85 in July 2007, to \$6.55 in July 2008, and to \$7.25 per hour in July 2009. Autor et al. (2009) find that between 30 and 60 percent of the increased inequality at the bottom of the wage distribution was due to the falling real value of the minimum wage; this also accounts for almost one-third of the total increase in male wage inequality.

Despite controversy about the negative employment effects of a higher minimum wage, many young adults with no more than a high school degree will continue to have difficulty attaining self-sufficiency if the minimum wage is raised as infrequently in the next decade as it has been since the mid-1980s. A higher minimum wage would be an important step toward making work pay. One possibility is to set the minimum wage at 45 percent of the median wage of production workers and to adjust it annually as that median changes. In July 2009, such a minimum wage would have been about \$8.00.

If the minimum wage is set too high, it would significantly reduce employment of low-skilled workers. However, the empirical evidence on the employment effects of moderate increases in the minimum wage over the last several decades is mixed.<sup>20</sup> A meta-analysis by Neumark and Wascher (2008) reports that a majority of studies find negative employment effects of the minimum wage. In contrast, Autor et al. (2008), assume for their study that disemployment effects have been small.

Expanded income supplements for low-wage workers, especially those without children, could raise the take-home pay of young adult workers, without causing adverse employment effects. The Earned Income Tax Credit (EITC) provides substantial support for low-income families with children, without reducing work incentives (Scholz, Moffitt, and Cowan, 2009), but very modest benefits to childless workers. The maximum federal EITC for a family with two or more children (in current dollars) was \$400 in 1975, \$550 in 1986, \$953 in 1991, and \$4,824 in 2008. In 2008, however, for a single person or a married couple without children, the maximum EITC was only \$438.

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<sup>20</sup> Standard economic theory predicts that binding minimum wages reduce employment. Lee and Saez (2009), however, argue that minimum wages might be optimal even in competitive labor markets if redistribution towards low-skilled workers is valued. In that case, lost efficiency from unemployment is compensated, in a social welfare sense, by higher wages for low-skilled workers. Rocheteau and Tasci (2009) show that the effects of minimum wages are ambiguous if there are systemic problems in finding jobs (known as search frictions).

Because most young adults are either not married or do not yet have children, they do not benefit much from the EITC. Adam Carasso and colleagues (2008) analyze proposals to expand the EITC for childless workers and note that expanded credits for single individuals can increase marriage disincentives. Some proposals reduce marriage penalties, for example by taxing spouses separately, but they are more expensive (Berlin, 2007). Despite the higher costs, given the declines in the employment and earnings of young men since the mid-1970s, an expansion of the EITC for childless workers could facilitate the transition to adulthood.

Public policy changes can also increase the likelihood that private sector wage rates will increase. Unionized workers have wages, on average, that are 15 percent higher than those of similar non-union workers. Card (1996) finds that the union wage premium is higher for the lowest quintile of the wage distribution. This suggests that the large decline over the past 30 years in the percentage of the work force that is covered by a union contract has contributed to the increased extent of low-wage work among young workers.

The Employee Free Choice Act, considered by Congress in 2009, is designed to facilitate increased unionization and raise private sector wages. However, Hirsch (2008) contends that the current adversarial model of labor relations reduces the flexibility of firms to adapt in today's dynamic labor market. He proposes to facilitate a less-adversarial governance model by establishing a default form of collective voice for workers into labor law, without granting workers full collective bargaining rights. In contrast to current labor law, management would be highly involved in the firm's labor relations procedures.

Expanding Employment for Less-educated Workers. The U.S. has not operated a large public service employment program since the early 1980s when President Reagan terminated the Comprehensive Employment and Training Act (CETA). However, even before the severe

recession began in late 2007, there was evidence that the 1996 welfare reform and increased incarceration had increased the number of less-skilled workers who were willing to work, but could not find steady employment. A transitional jobs-of-last-resort program could help offset the declining employment rates of young males. Workers in last-resort jobs could perform socially-beneficial tasks for which there is little effective labor demand, such as labor-intensive public services in disadvantaged communities—neighborhood maintenance, weatherizing homes, assisting the elderly. Jobs could be time-limited and offer wages below the minimum wage, thereby providing an incentive for workers to accept available private sector jobs.

Investing over the Life-Course to Increase Educational Attainment. Increased investments in education and training over the life course could raise the employment and earnings of the next generation of young adults. The President’s Council of Economic Advisors (2009) projects that many jobs in growing industries over the next five to ten years will require “non-routine” skills. On the other hand, a large proportion of these new jobs are expected to pay low wages. The CEA endorses government policies that promote life-long educational programs from elementary through post-secondary schooling. This will require both increased funding and policies that promote access, especially for young people from disadvantaged backgrounds.

If early childhood and K-12 educational policies were more effective, the next generation would contain fewer high school dropouts and more college graduates. Educational policies remain appealing to the public, but in the short term they are more expensive than policies that make work pay for today’s young adults. And, the payoffs from successful programs—increased educational attainment, employment and earnings and lower rates of incarceration and non-marital births when these children reach adulthood—are not evident for many years.

The best way to raise the economic prospects of the next generation of young adults is to raise their high school graduation rate and skills and ensure that a greater percentage complete two-year community college degrees and certificates and four-year college degrees. The current education system falls well short of providing low-income students the skills they need to succeed in the 21st century labor market. Jacob and Ludwig (2009) and Magnuson and Votruba-Drzal (2009) document the importance of expanding the scope of early childhood education for low-income children. The ARRA expanded funding for Early Head Start and Head Start ([http://www.whitehouse.gov/assets/Documents/Recovery\\_Plan\\_Metrics\\_Report\\_508.pdf](http://www.whitehouse.gov/assets/Documents/Recovery_Plan_Metrics_Report_508.pdf)); and, the Obama administration has proposed increased funding for early childhood education and services (<http://www.whitehouse.gov/agenda/education/>).

“Second-chance” workforce development programs seek to raise the skills and wages of today’s disadvantaged young adults. Holzer (2009) shows that federal funding for education and training programs for adult workers, typically young adults, has declined dramatically since the early 1980s, a period during which the labor market rewards for skills have increased. He proposes additional workforce development spending to raise the employment and earnings of young adults. In part, the decline in federal funding reflects dissatisfaction with the inability of many previous workforce development programs to raise the employment and earnings of the disadvantaged. However, Holzer notes that some programs have produced modest, but cost-effective, results and that recent program innovations are promising. These include training programs that consider the local labor market demand for certain types of workers, that coordinate worker training with employers or industries that offer well-paying jobs and that provide additional support services that address potential employment barriers such as child care or transportation.

Although the U. S. had the highest percentage of young adults who were college graduates for most of the 20<sup>th</sup> century, it has fallen behind a number of other countries in recent decades (Haveman and Smeeding, 2006). President Obama has proposed increased federal support to make college more affordable. As the chapter by Thomas Brock notes, the ARRA includes a new tax credit for college students and increased the annual amount of Pell Grants. The FY2010 Budget also proposes indexing Pell Grants to inflation and making them an entitlement.

### **Summary**

Since the mid-1970s, the labor market prospects of young males have improved on average less than they did for young males who entered the labor market in the quarter century following World War II. And, the employment rates and inflation-adjusted wage rates of males with no more than a high school degree are lower today than they were in the mid 1970s. At the same time, the labor market outcomes of young women have increased relative to those of young men for all race/ethnic and education groups.

Policies to improve the labor market prospects of young adults are necessary to facilitate successful transitions to adulthood, even if labor market success, on its own, is not sufficient to achieve the other markers of adulthood (living independently, marrying and having children). There are numerous public policy reforms that can raise the employment and incomes of today's young adults and increase the educational attainment, and hence the labor market success, of the next generation.

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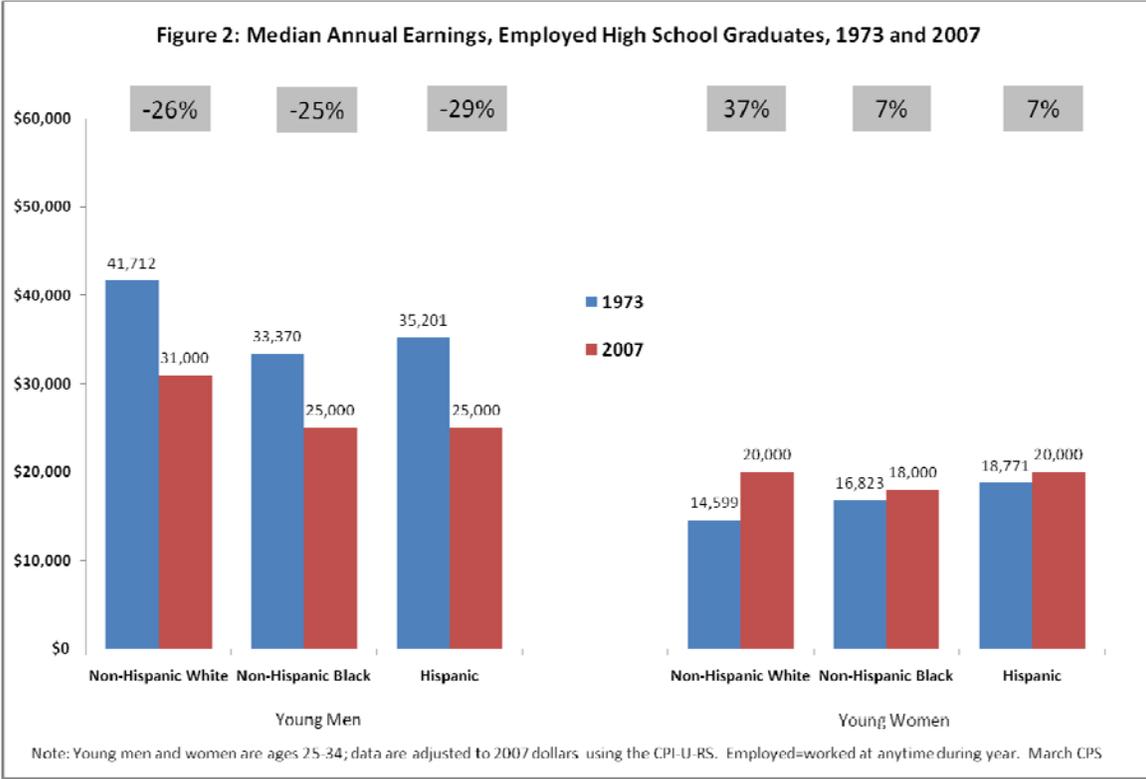
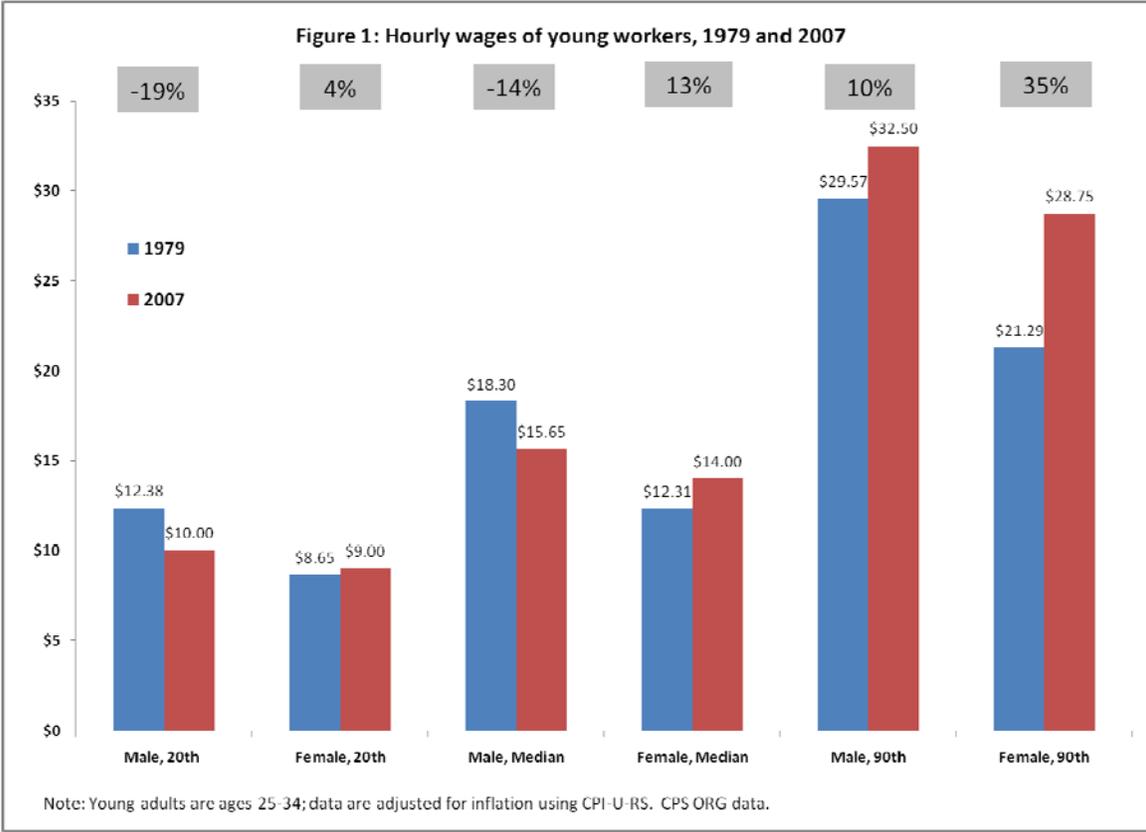
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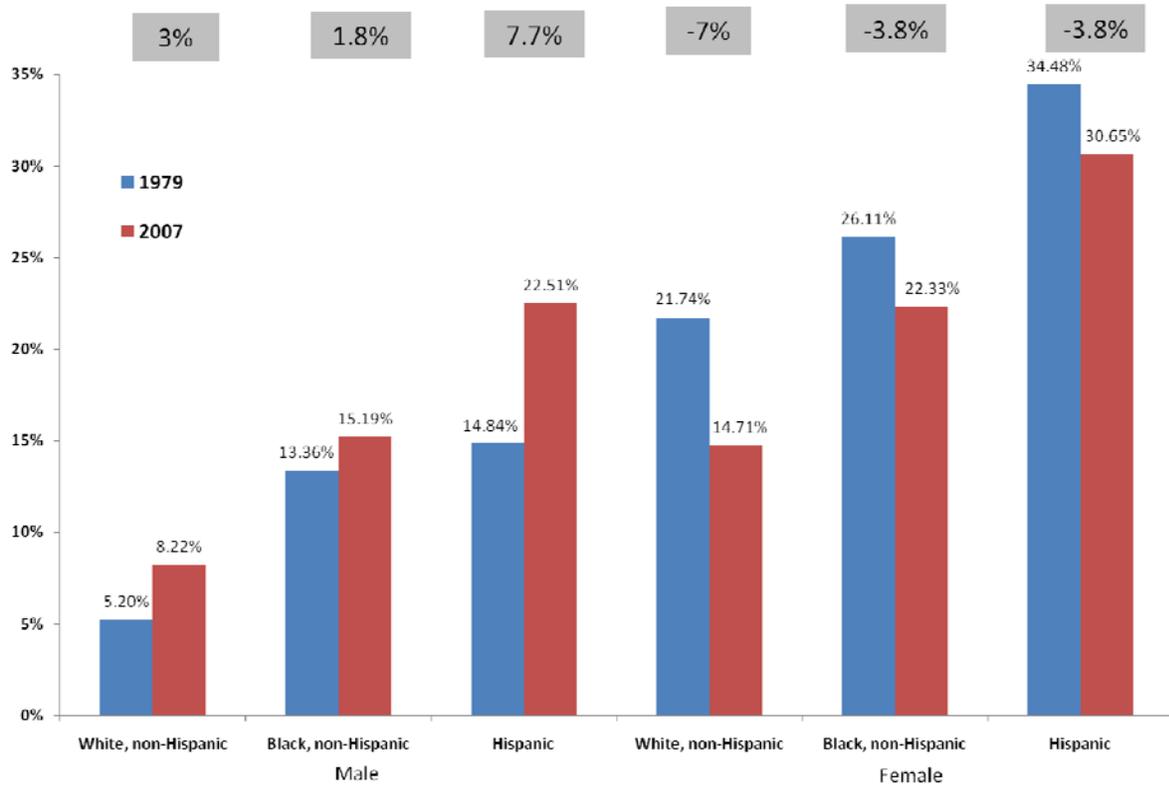
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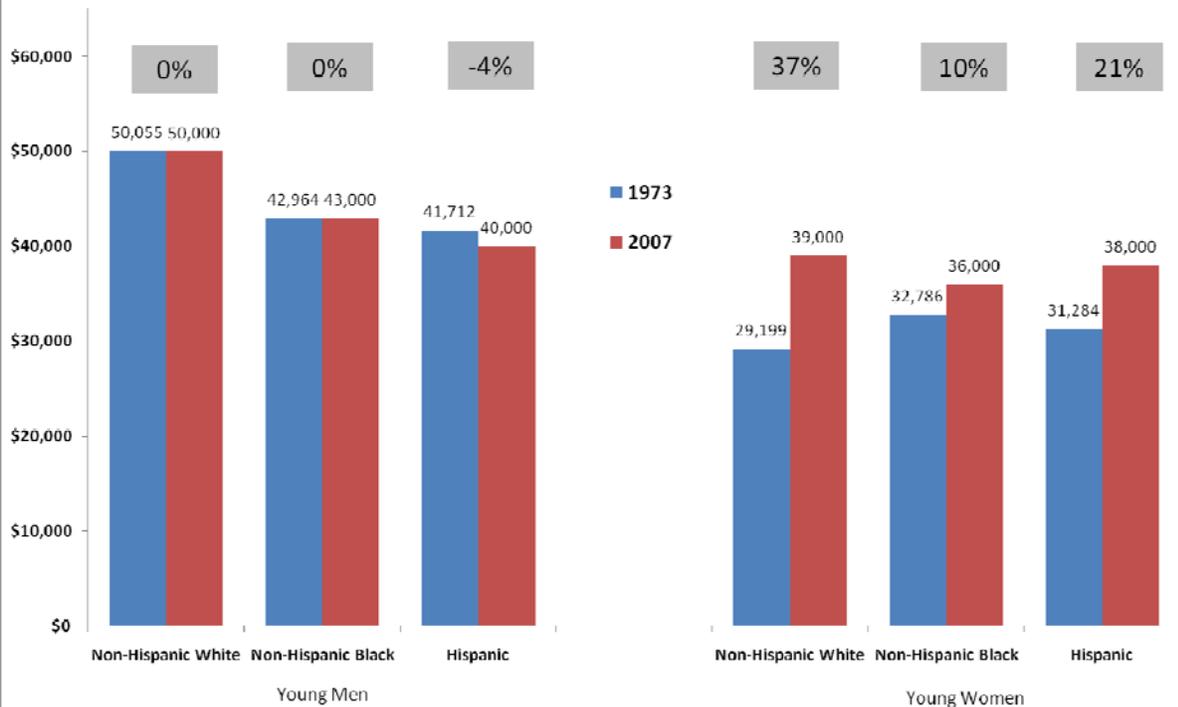


**Figure 4: Percent of 25-34 year olds earning under \$9 per hour, 1979 and 2007**



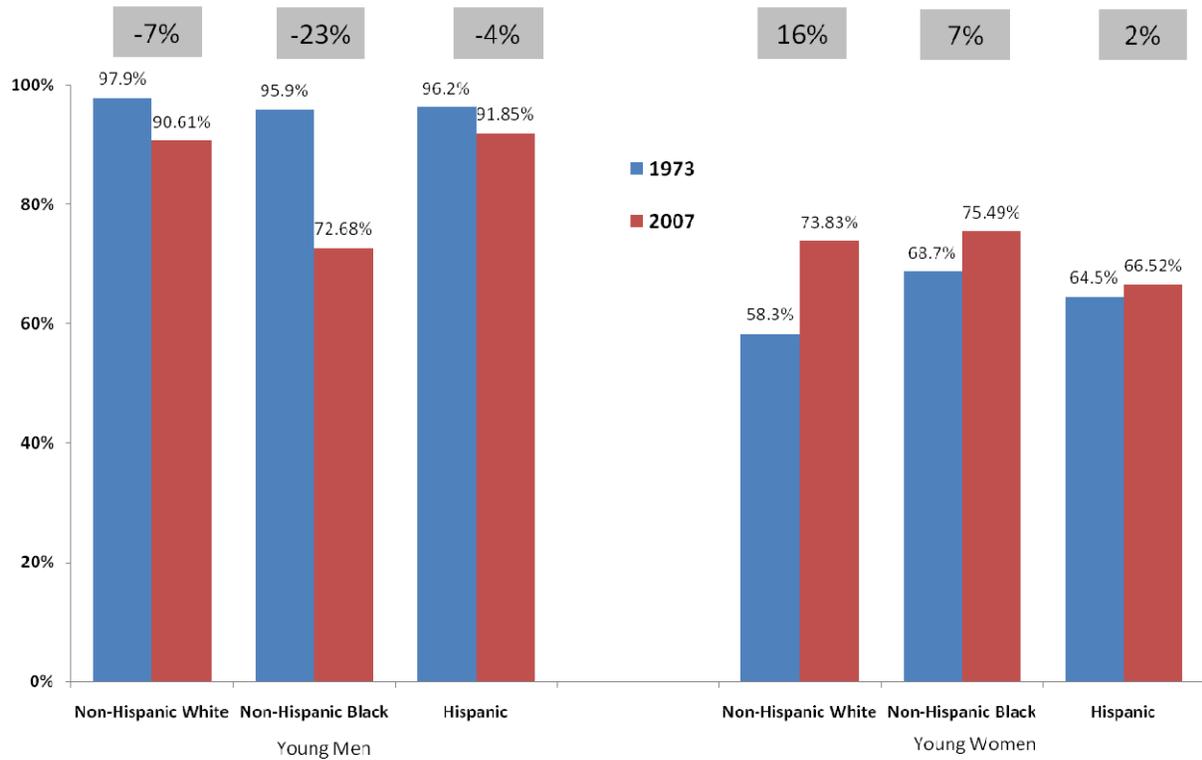
Note: Young adults are ages 25-34; data are adjusted for inflation using CPI-U-RS. CPS ORG data.

**Figure 3: Median Annual Earnings, Employed College Graduates, 1973 and 2007**



Note: Young men and women are ages 25-34; data are adjusted using the CPI-U-RS. Employed=worked at anytime during year. March CPS

**Figure 5: Employment Rate, High School Graduates, 1973 and 2007**



Note: Young men and women are ages 25-34. Employed=worked at anytime during year. March CPS data.