The Low-Wage Labor Market

Challenges and Opportunities for Economic Self-Sufficiency

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Preface

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At the Urban Institute, Demetra Smith Nightingale directed the project; Mildred Woodhouse capably handled the numerous administrative details that are essential when so many authors are involved; and Scott Forrey of the Urban Institute Press coordinated the production of the manuscripts. Finally, Felicity Skidmore's excellent editing of various parts of the volume was critical to the final product and very much appreciated.

Executive Summary

The low-wage labor market has come increasingly into the policy spotlight following welfare reform, as states strive to move welfare recipients into employment. In this volume, experts in labor market analysis synthesize the current literature on the low-wage labor market and highlight important policy implications flowing from their review.

Characterizing the Low-Wage Labor Market

- Current research suggests the labor market is not—as classical labor market theory depicts it—a single unified market in which each worker is paid according to his/her additional value to the firm and is promoted to better-paid positions as that value increases. Rather, it has two largely separate sectors—a primary sector, which functions more or less as classical theory depicts and a secondary sector, which has few ladders to job advancement, little job stability, and more gender and racial discrimination than the primary market.

- Analysts of the secondary market focus on several types of workers, including workers with low hourly wages, workers with low skills, and workers whose annual earnings are low because they work only part-time or intermittently. These groups overlap but are not identical. Different policies may be necessary for different groups.

- The share of workers with low earnings is substantial. In 1997, for example, over a third of female workers had hourly wages that would be insufficient to lift a family of four out of poverty even if they worked full-year, full-time.

- The share of workers with low or near-low earnings is high and has been increasing, up from 36 to 41 percent over the past decade. The recession of the early 1990s was particularly difficult for low-wage workers, when nearly one million low-wage jobs were lost.

- Employment outcomes in the low-wage market vary greatly across regions, with lower unemployment rates for less educated women in the Northeast and Midwest compared to the South and West, and more favorable outcomes in the suburbs and rural areas compared to central cities.

Policy Interventions Affecting Low-Wage Labor Markets

- The low-wage labor market should be able to absorb the new entrants associated with welfare reform as long as the economy is healthy. The needed adjustments may take some time, however. In the short run, many welfare recipients leaving the rolls may have trouble finding employment. The large inflow of new entrants into the low-wage labor market could also reduce wage levels in that market.

- Policy interventions designed to help low-wage workers include raising the minimum wage, public service employment, worker-targeted tax credits, and employer-targeted tax credits.

- Raising the minimum wage is not a strategy that is well targeted on the working poor, because the majority of the working poor are earning more than the minimum wage, and the majority of minimum wage earners are not poor (and include a substantial number of teenagers). Nonetheless, raising the minimum wage would likely improve the financial well-being for a substantial number of working poor adults, including nearly one million single parents.

- Opponents to raising the minimum wage claim that it would reduce employment opportunities for low-wage workers. The weight of evidence indicates that this effect would be minimal and impact primarily teenagers who are typically not poor. Opponents also claim that raising the minimum wage would decrease the availability of employer-provided training. The evidence provides some support for this concern.

- Subsidized public service employment (PSE) can increase earnings and the value of the output produced by low-wage workers. But PSE does not appear to create new jobs as much as shuffle workers around among existing jobs. The PSE evaluation evidence is restricted to older programs and more recent small-scale demonstrations, however.

- The Earned Income Tax Credit (EITC) is an effective means for increasing labor force participation, particularly among single mothers.

- Employer-targeted tax credits, such as the Work Opportunity Tax Credit and the Targeted Jobs Tax Credit, have received less favorable evaluations than worker-targeted credits. Most workers hired through such programs would have been hired in the absence of the credit.

- Tax credits paid to employers developing economically distressed areas, such as those associated with Empowerment Zone/Enterprise Community programs, have been similarly ineffective in generating new jobs. More recent programs, which place greater emphasis on community building, may yield more positive results.

Barriers to Entering the Low-Wage Labor Market

- Major potential barriers facing workers entering the low-wage market include skills mismatch (including lack of transportation), discrimination, spatial mismatch, and lack of access to informal information networks.

- Skills mismatch is a serious difficulty for many disadvantaged workers, with at least 30 percent of long-term welfare recipients not meeting the basic job readiness requirements of employers.

- Discrimination negatively affects employment rates of African Americans, even when differences in skills have been taken into account.

- While there has been disagreement as to whether there is a spatial mismatch of jobs and workers, the majority of evidence does support the conclusions that the disadvantaged workers from central cities do have trouble getting to jobs located in the suburbs.

- Informal hiring networks account for between 25 and 60 percent of hires and are a particularly important hiring mechanism for entry-level employment, jobs that do not require college education, blue-collar jobs, and jobs with small employers. Such networks tend to be tightly knit and ethnically homogeneous. African American workers, in particular, tend to be excluded from them.

Opportunities for Advancement and Benefits in the Low-Wage Labor Market

- Job turnover is higher in industries where disadvantaged workers tend to find employment than in the primary labor market. Job turnover tends to have high costs for disadvantaged workers, leading to more periods of joblessness, reduced earnings, and reduced opportunities for formal training.

- Low-wage workers leaving welfare for work in the wake of welfare reform are likely to experience little wage growth. Although some studies suggest wage growth of about 4.5 percent over a year (which translates into only about $400 per year for a low-wage worker), other studies yield lower estimates. Even these may be on the high side, since they are based mainly on the experience of women who have left welfare voluntarily and found jobs.

Conclusions and Policy Implications

- The nation's labor market will be able to absorb the influx of persons leaving the welfare rolls if the economy retains its current strength. There are a number of concerns, however, particularly in areas of the country with fewer opportunities for low-wage work, such as large urban areas and the South and West regions of the country.

- The jobs for which most welfare recipients can qualify, given their low skills and education, are concentrated in the secondary labor market—with low wages, few fringe benefits, little opportunity for advancement, and high job turnover.

- The nine expert reviews of the literature on the low-wage labor market highlight several policy options for improving the wage, employment, and economic self-sufficiency outcomes of low-wage workers:

  Policies to improve labor market access and job retention. These include continued funding and support for programs that provide labor market information,

job networking, job retention counseling, and career planning. Services such as child care and transportation also are important.

Policies to encourage or support occupational mobility/job advancement. These include developing information networks and policies to encourage businesses to delineate skill requirements and career ladders for entry-level jobs, as well as on-the-job training for such career ladders.

Policies to raise the incomes of low-wage workers and enhance employment security. These include the Earned Income Tax Credit, targeted public and community service jobs strategies, and minimum wage policies.

Introduction and Overview

Kelleen Kaye and
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Background

Increased emphasis on moving welfare recipients into employment as a result of welfare reform has raised questions about the labor market facing low-wage workers. What are the characteristics of this market (as opposed to the labor market as a whole)? Will it be able to absorb the welfare leavers? How is it affected by changes in the larger economy? What opportunities do low-wage workers have for advancement once they enter the labor market?

To help policymakers answer these questions, nine papers by experts in labor market analysis were commissioned by the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, to review current literature on the low-wage market and highlight policy implications that flow from the review. (The Data Appendix provides a statistical portrait of the labor market as a whole and the characteristics of low-wage workers.)

The important role of the low-wage labor market as welfare recipients and other economically disadvantaged persons move into employment is clear from the evidence marshaled in the review. There is a strong consensus that this labor market will be able to absorb people leaving the rolls, as long as the economy retains its current strength. However, there is often little opportunity for job advancement in this market. Suggestions made by the authors for improving economic opportunity for low-wage workers include ways to increase wages and sustain income directly, improve labor market access and job retention, support occupational mobility and job advancement, and enhance employment security.

Characterizing the Low-Wage Labor Market

The first two papers describe the low-wage labor market, how it varies over time, and how outcomes vary for different populations and regions. Jared Bernstein and Heidi Hartmann show how the labor market facing low-wage workers differs in important respects from the labor market as a whole. David Smith and Stephen Woodbury address how this market changes over time and through business cycles, and how it varies across different geographic regions.

What Is the Low-Wage Labor Market? As Bernstein and Hartmann point out, traditional labor theory views all workers as competing together in a single integrated market and being paid according to their marginal productivity (how much additional product they bring to the firm). In such a market, low-wage work can provide an opportunity to become employed in a stable job and advance up a career ladder. Theoretical and empirical work, however, suggests that the labor market is, in fact, divided into two largely separate sectors, often referred to as the primary and secondary labor markets. In the primary market, most jobs have opportunities for advancement, there is substantial job mobility, and workers typically have employment-related fringe benefits. In the secondary market, in contrast, there is generally considerable job instability but little opportunity to advance up the career ladder, few fringe benefits, and more gender and racial discrimination than in the primary market.

The workers in the secondary labor market of main concern to policymakers are those who are the primary source of income support in their households. Low-wage workers who provide secondary earnings to middle- or upper-income households are not viewed with the same concern in this policy area, nor are teens who earn low wages temporarily but whose human capital, current or future, gives them strong prospects for job advancement over their working lives.

It is important to note, as Bernstein and Hartmann do, that analysts view low-wage workers through different lenses. Some focus on those who earn low hourly wages, others on those who have low skills, and still others on those who, although their wage rates are somewhat higher, work too few hours (through involuntary part-time work) or too few weeks (through periods of lay-off or unemployment) to yield incomes above the poverty line on a yearly basis. The groups overlap but they are not the same. In particular, though many workers in the secondary market have low basic skills, some have higher skills but fall into the secondary market for other reasons. Different policy interventions may be needed for different situations.

Whatever choices analysts make to identify the low-wage market, *the share of all workers who have low earnings is substantial.* For example, as Bernstein and Hartmann note, 29 percent of all workers and 35 percent of females workers in 1997 had hourly wages that would be insufficient to lift a family of four out of poverty even if they were to work full-year, full-time. *Poverty is a serious problem for many groups of workers, particularly minorities, the less educated, and women with families.* Consider workers in the labor force for more than 27 weeks in 1996. Of those with no high school diploma, 16 percent had household incomes below the poverty line. The shares for black and Hispanic workers were 12 percent and 16 percent, compared with the poverty rate for all workers of 7 percent.

Poverty among workers can result from either low wages or spells of joblessness, particularly among the low-skilled. During 1997, according to Smith and Woodbury, the unemployment rates for men and women without a high school diploma were 13 and 14 percent. These are more than double the unemployment rates for men and women with higher levels of education.

Not all workers in the low-wage market lack education, however, as Bernstein and Hartmann explain. Of those workers with below-poverty hourly wages in 1997, for example, less than one-quarter lacked a high school diploma. But 40 percent had a high school diploma and 38 percent had at least some postsecondary education. As a result, *new entrants to the low-wage labor market, particularly those coming from welfare, may find it difficult to compete with the more highly educated working poor.*

Has the Low-Wage Labor Market Been Changing? *The share of workers with low earnings has been rising in recent years.* Bernstein and Hartmann document that the share of workers with below-poverty hourly wages has risen from 25 percent of all workers in the early 1970s to 29 percent in 1997. Smith and Woodbury find that the share of workers with low-wage or near low-wage jobs (below $7.50 an hour) rose from 36 percent in 1988 to over 41 percent in 1997. And among workers in the labor force for more than 27 weeks in the year, the poverty rate for women without a high school diploma increased from 14 percent in 1988 to 19 percent in 1997. (For changes in the characteristics of the working poor, see Appendix Tables 3.1 to 3.4.)

The hourly wage gap between women and men has narrowed since the 1970s. But this primarily reflects steep wage declines for men rather than wage improvements for women. Although real wages for both men and women fell from 1973 to 1997, the sharpest decline occurred for men, according to Bernstein and Hartmann. Men with and without a high school diploma suffered real wage declines of 17 percent and 30 percent. Real wages for women during this same period fell much less, 16 percent and 3 percent for women with and without a diploma.

Bernstein and Hartmann emphasize that these wage declines occurred in spite of increasing education and work experience among workers and increasing returns to human capital. They suggest that at least some of the reason may be changes in institutional factors such as minimum wage laws, macroeconomic monetary policy, the role of unions, and international trade policies.

In spite of the narrowing gender gap in hourly wages, women remain disproportionately represented in the low-wage market.

How Was the Low-Wage Labor Market Affected by the Last Recession? The economy is currently strong, and unemployment is at its lowest point since 1970. Policymakers need to worry about how the low-wage labor market will fare during a future economic downturn, however, since Smith and Woodbury show that *low-wage jobs are often the first to be cut during a recession*. Overall job growth among hourly paid workers, though remaining positive, slowed during the recession of the early 1990s, for example. But job growth among low-wage (less than $5.15 an hour) workers was negative, with nearly one million jobs lost. The drop was

particularly marked in occupations traditionally considered low-skill, such as sales, clerical, and household and personal services.

Unemployment increased for all workers during the recession of the early 1990s, with the increase being greater for low-skilled workers than for workers generally. Between 1988 and 1992, for example, unemployment for workers without a high school diploma rose from 12 percent to nearly 14 percent for women and nearly 17 percent for men. These compare with an increase from about 5 percent to about 7 percent for all workers. Unemployment might have been even higher among the less educated had it not been for a drop in the number of such workers, particularly women, competing for jobs.

Joblessness has continued to rise slightly for women without a high school diploma, even though unemployment rates had receded to their pre-recession levels for nearly all educational groups by 1997. Smith and Woodbury suggest this may be due to a declining demand for low-skilled workers between 1992 and 1997, combined with increased labor force participation for less educated women.

Do Labor Market Outcomes Differ by Geographic Area? Nationwide figures provide good indicators of the overall strength of the economy. But they often obscure regional differences in labor market opportunities. *Even during the current tight labor markets, employment difficulties remain more serious in some areas of the country.* While the national unemployment rate in 1997 was 4.9 percent, for example, state unemployment was over 5 percent in eight states, including California and New York.

When the focus shifts to disadvantaged workers, regional disparities remain substantial. Smith and Woodbury note that the Northeast was hit particularly hard during the recession of the early 1990s. Labor markets there were still slack in 1997, with relatively little job growth and unemployment rates among women without a high school diploma still substantially above 1988 rates, at around 7 percent. The Midwest experienced a milder recession and its labor market is currently very tight, with good job growth since 1988 and substantial declines in unemployment rates for less educated women. Unemployment rates for less educated women remain highest of all in the South and the West, reaching between 8 and 9 percent in 1997, in spite of reasonable job growth and a labor demand shift toward low-wage jobs.

Not surprisingly, labor markets tend to be stronger in the suburbs and rural areas than in central cities. From 1988 to 1997, the number of hourly paid jobs in the suburbs grew over 23 percent, in contrast to an increase of only 13 percent in the central cities. The last recession hit harder and faded more slowly in the central cities compared with suburbs and rural areas, and central-city unemployment rates for women with no college education had not dropped much below 10 percent by 1997. Thus, achieving self-sufficiency through employment could be particularly difficult for welfare recipients living in central-city areas. It should be noted that central-city labor markets have shifted more toward low-wage jobs than their suburban counterparts. This can be viewed as an increased opportunity for low-skilled workers to enter the labor market. But it is also a sign of reduced opportunities for job advancement.

The Effect of Various Policy Interventions on the Low-Wage Labor Market

The next three papers in the volume explore the impact of specific policy interventions to raise income or increase employment (or some combination of the two) among the working poor. Gary Burtless examines the effects of recently enacted welfare reform legislation, which, while not directly targeted on the working poor, is likely to increase employment among many people with tenuous attachments to the labor force. Mark Turner examines the effect of changes in the minimum wage on the supply and demand for labor in the low-wage labor market. Burt Barnow summarizes evidence regarding the effectiveness of public service employment and targeted tax credits in increasing employment or raising income levels among the working poor.

Will the Low-Wage Labor Market Be Able to Absorb Welfare Leavers? *In the short run many welfare recipients leaving the rolls may have trouble finding employment,* predicts Burtless, for two reasons. First, as indicated above, even during economically prosperous times, labor markets in particular regions or neighborhoods may offer very limited opportunities. Second, labor markets need time to expand and adjust, and welfare recipients may enter the job queue behind other, more qualified applicants. As of 1994, for example, 40 percent of recipients had not completed high school and roughly three-quarters of those on welfare had aptitude test scores that placed them in the bottom quarter of all test takers.

Burtless is more optimistic that *the labor market will absorb the new entrants associated with welfare reform in the long run*. Labor markets have more time to adjust, thus giving opportunities for employers to adapt to emerging markets and workers to adapt to new skill demands, changes in technology, or relocation of job opportunities. Burtless bases his optimistic conclusion in part on Bureau of Labor Statistics projections that the labor market will create seven million additional low-skilled jobs over the next 10 years, and in part on the fact that the U.S. labor market has absorbed large inflows of new workers in earlier periods. From 1964 to 1989, for example, the labor force grew by over two million workers per year as the baby boom generation entered the labor market. The vast majority (95 percent) of these new job seekers were able to find work.

Even if the market can absorb all the welfare leavers, however, Burtless cautions that *the large inflow of new entrants into the low-wage sector could put downward pressure on wages*—aggravating the policy concern that many jobs available to welfare recipients will not enable them to work their way out of poverty.

Do Minimum Wage Policies Improve Outcomes for Low-Wage Workers? Proponents of raising the minimum wage advocate it as a way of raising the incomes of working poor families. The idea is tempting, given that the legislated increases since 1970 (to a current level of $5.15 an hour) have failed to keep pace with inflation. In inflation-adjusted (real) terms, the minimum wage has fallen by 23 percent since 1970. (See Appendix Table 1.5).

However, according to Turner, the benefits of raising the minimum wage may be limited. First, the proportion of hourly wage workers paid at or near the minimum wage has fallen substantially since 1979, by nearly half for men and nearly two-thirds for women. Second, most

of the 11.2 million workers currently earning the minimum wage are not poor. Over one-quarter are teens, for example, and of the teens and young adults working at the minimum wage, over half are enrolled in school and living in families with incomes at least 150 percent of poverty. (For information about wage rates, see Appendix Tables 2.4 to 2.6.)

Even so, of the six million adults working at the minimum wage, 1.4 million live below 150 percent of poverty and nearly one million are single parents. Increasing the minimum wage could improve their financial well-being despite its inadequate targeting of the working poor generally.

Opponents of minimum wage increases have long believed that such policies have the disadvantage of reducing job opportunities, because employers will eliminate bottom-echelon jobs rather than pay more than those jobs are worth in terms of the additional output they produce. According to Turner, a majority of the evidence indicates that *any negative effects of the minimum wage on employment opportunities are small* and occur primarily among teens, a group of less concern in this policy area than are low-wage adults and at-risk groups such as women and minorities.

Turner also looks at two other potentially negative consequences of a minimum wage increase. The first is that higher minimum wages could encourage teens to drop out of school to enter the labor market. Turner's reading of the evidence suggests that *this is probably not a valid concern, and that raising the minimum wage would not adversely affect educational attainment,* although he notes contradictory findings and the need for additional research. The second potentially negative consequence is that higher minimum wages could discourage employers from providing training. Turner finds evidence supporting the validity of this concern—that *increasing the minimum wage could negatively affect the availability of employer-provided training.* One study, for example, found that raising the minimum wage to $6.15 an hour would reduce the probability of training by as much as 5.8 percentage points.

Does Public Service Employment Improve Labor Market Opportunities? Although many public service employment (PSE) programs have been sharply criticized in the past, Barnow finds that *PSE can be effective in improving employment outcomes among the economically disadvantaged.* Barnow reviews the history of PSE programs, including national programs operating during the Great Depression of the 1930s, and the Comprehensive Employment and Training Act (CETA) programs of the 1970s. Over the years, *PSE has changed significantly with respect to funding levels, eligibility requirements, and the work activities themselves.* For example, CETA was amended several times during the 1970s, to focus eligibility on the more seriously disadvantaged, limit the length of participation, and limit the wages that could be paid to PSE employees.

Nonetheless, criticism of the whole approach persisted. There were concerns that PSE programs selected (creamed) from the best participants, thus minimizing any beneficial effect of the program on improving individuals' job readiness. It was also felt that federal PSE funds were simply substituting for state and local funds, thus minimizing the job creation aspect of PSE. Significant federal involvement ended in 1982, when CETA was replaced with the Job Training Partnership Act (JTPA) programs. PSE is now carried on to a more limited extent at the state and local levels.

Because there have not been any large-scale PSE programs since 1982, Barnow's assessment of program effectiveness is limited to older studies and smaller-scale demonstrations. These, in fact, provide strong evidence that *at least some PSE programs have had significant positive impacts on increasing the earnings of participants.* Barnow reports on one program in which PSE increased the earnings of men and women on welfare by over $1,000 per year. On the important question of whether PSE creates new jobs rather than displacing existing ones, Barnow is less optimistic. The evidence regarding job creation, in his judgment, is much more ambiguous.

Are Tax Credit Programs Effective in Increasing Employment? Barnow also reviews tax credits as a means to increase employment among disadvantaged workers in the private sector. These credits can be paid to the worker—as with the Earned Income Tax Credit (EITC)—or to the employer—as with the Targeted Jobs Tax Credit (TJTC) or Work Opportunity Tax Credit (WOTC).

The EITC is intended to increase labor force participation by encouraging people to work who otherwise would not be drawn into the labor force at the prevailing wage. Barnow finds that the majority of evidence suggests *the EITC is an effective means of increasing labor force participation among single mothers and raising the family incomes of poor children.* Barnow notes, however, that the increased income associated with the EITC can provide a disincentive to work for some, particularly women in two-earner households. Furthermore, since the EITC does not directly create new jobs, it will benefit fewer workers in the overall labor market.

Employer-targeted tax credits such as the WOTC have been evaluated less favorably, according to Barnow's review. Although targeted employer tax credits are popular among some policymakers, most evidence indicates that the majority of workers hired through WOTC or similar programs would have been hired anyway. In one program, for example, only 0.13 to 0.30 jobs were actually created for each new TJTC hire.

Tax credits paid to employers developing in economically distressed areas, such as those provided with the Empowerment Zone/Enterprise Zone programs, have been found equally ineffective in generating new jobs. Their primary effects have been to relocate economic activity from near the zone to within it, according to Barnow. These findings are based on results from much earlier programs. *More recent programs are placing greater emphasis on community building, which may yield more positive results.*

Barriers to Entering the Low-Wage Labor Market

Many workers face serious barriers to employment, even when job openings are available. The next two papers in the volume address the problem of barriers. Harry Holzer identifies four major barriers to employment. Julia Henly focuses in more detail on one of these barriers—lack of access to information networks.

What Types of Barriers Do Disadvantaged Workers Face? Disadvantaged workers can face several barriers, including skills mismatch, spatial mismatch, discrimination, and insufficient information networks, according to Holzer's analysis. When there are changes in demand for

workers, adjustments in the types of labor available (supply) often lag by as much as several years, and many workers may not be well positioned to compete for jobs in the interim. Education/skills need to change to meet the new job demands. Where workers live needs to change to match the new job locations. And both these adjustments may be impeded by gender or racial discrimination and by lack of access to information networks.

Even for relatively low-skilled jobs, employers tend to seek basic skills such as job readiness, social skills, and basic cognitive skills, in addition to any job-specific skills. In a survey asking employers about what worker characteristics they look for in hiring entry-level workers, about half said they would not hire someone without a steady work history, two-thirds said they would not hire someone with a criminal record, and three-quarters said a high school diploma was "absolutely necessary" or "strongly preferred." Even for these basic job requirements, Holzer finds *skills mismatch is a serious barrier for many disadvantaged workers.* For example, 60 percent of long-term welfare recipients lack a high school diploma or GED, most score among the bottom 20 to 25 percent of aptitude test takers, and some studies estimate that at least 30 percent would not meet the basic job readiness requirements of employers. In addition, one-third of African American men ages 16 to 34 have a criminal record, with the rate rising to over 60 percent among young African American men who dropped out of school.

How important are spatial barriers? The big concern here is that disadvantaged workers living in central cities may have trouble getting to jobs in the suburbs. The importance of this factor, known as spatial mismatch, is in debate. But Holzer concludes that the majority of evidence indicates that *African American employment rates are depressed by spatial mismatch (which includes lack of transportation as well as residential mismatch).*

How Much Does Access to Information Networks Matter? Learning about job opportunities is a potential challenge for many disadvantaged workers, not only because of the geographic distance separating them from employers but also because many disadvantaged workers do not have access to the types of information networks employers use in seeking new hires.

Henly notes that informal networks are, indeed, one of the most widely used methods of job placement, accounting for between 25 and 60 percent of hires. Such informal networks are particularly important for entry-level hires, jobs that do not require college education, blue-collar jobs, and jobs with small employers. The earnings potential of a job appears very dependent on the characteristics of its referral networks, which is not simply a method for exchanging information, but a means for employers to screen applicants.

Such networks tend to be tightly knit and ethnically homogeneous, according to Henly, and African American workers are typically excluded from them. Because the networks are so important in the entry-level market, they may serve not only to help particular groups, but to exclude disadvantaged workers from entering the more favorable employment niches and ensure that they are retained in the less promising ones.

Formal employment agencies and other intermediary organizations have not been important sources of hires in the past. But Henly notes that since passage of welfare reform, intermediaries have become more common, reflecting a hope that they can play an important role in brokering employment for disadvantaged workers. Because such organizations provide

screening (as well as training and other services at times), they can help fill the role of informal networks. Some organizations are showing promise in working with hard-to-serve populations such as ex-offenders. While some observers may be optimistic about the potential role of intermediaries, Henly cautions that the current strong labor market may be responsible for what might seem like the effectiveness of intermediaries.

Opportunities for Advancement and Job-Related Benefits in the Low-Wage Labor Market

As noted, many disadvantaged workers do not earn enough to support a family above the poverty level and their jobs will not secure the economic independence of families unless they are accompanied by employment stability and wage advancement. The final two papers in the volume move beyond initial job entry to job retention and wage growth. Peter Gottschalk looks at the opportunities for wage growth and job advancement among low-wage workers. Julia Lane examines the extent to which job turnover is associated with advancement to a better job versus employment instability and periods of joblessness.

What Is the Potential for Wage Growth and Job-Related Benefits among Low-Wage Workers? Low-wage workers, particularly women who previously received welfare, experience little wage growth, according to much of the evidence reviewed by Gottschalk. According to one study, former welfare recipients working 32 hours a week year-round for $5.14 an hour can expect wage growth of about 4.5 percent over the year. This seems quite significant, until several factors are taken into account to put it into perspective. First, given the low starting wage, 4.5 percent amounts to only about $400 a year. Second, other studies yield lower estimates, particularly for those working fewer than 32 hours a week. Third, even the lower rates are probably overestimates, given that they are based on former recipients who voluntarily left welfare and were able to find employment. Current recipients with more substantial employment barriers may fare considerably worse. Experimental evidence regarding the impact of employment services was particularly discouraging. However, this in part reflects the fact that such experiments yielded only small increases in initial work experience.

One likely factor depressing wage growth for disadvantaged workers is the lack of employer-provided training. Many firms hiring disadvantaged workers tend to have less capital and provide less training to workers than firms hiring more skilled labor. Jobs in the service or clerical sector, for instance, provide substantially less training than jobs in the professional/technical or construction/maintenance fields (see Appendix Table 4.5). Not only do disadvantaged workers generally receive fewer hours of training, but the training they do receive is more often informal learning rather than formal instruction. This pattern holds true for female and minority workers, and for workers without a high school diploma. Job tenure influences the informal/formal mix. Workers having less than five years' tenure with their current employer receive relatively more training overall than workers with over five years' tenure but much less formal instruction.

For low-wage workers, the challenge of making ends meet is often compounded by lack of employer-provided benefits. *Workers earning less than $8 per hour are much less likely than other*

workers to have benefits such as job-related health insurance for their families, paid leave, access to flexible schedule options, or dependent care benefits (for information about access to benefits, see Appendix Tables 4.1 to 4.7). About 61 percent of low-wage workers have access to job-related health benefits for their families, for example, compared with 87 percent for other workers. For many workers, the combined lack of wage advancement and lack of benefits led to increased job instability, which further hurt chances for future wage advancement and benefit receipt. Over one-quarter of employers surveyed said there was a waiting period of a year or longer before benefits were provided to new employees.

How Does Job Turnover Affect Low-Wage Workers? Job turnover is prevalent in today's labor market, notes Lane. Almost one in three jobs is created or destroyed each year. Turnover also occurs when workers churn in and out of existing jobs. Four in ten jobs are occupied by new workers each quarter.

Although some degree of job turnover is a positive sign of flexibility and adjustment in the labor market, *turnover can have high costs for disadvantaged workers.* Unskilled workers tend to suffer lower annual earnings, reduced opportunities for formal training, and longer periods of joblessness each time they change jobs. Findings reviewed by Lane indicate that workers who are displaced from their jobs may suffer earnings losses of 10 to 25 percent up to several years later. Women and minorities are at higher risk for unemployment following displacement than men. (For information about employment status, see Appendix Tables 2.1 to 2.3.)

Not surprisingly, Lane reports that turnover is higher in industries where disadvantaged workers tend to find employment. Retail trade and business services, for example, account for only one in five jobs but nearly half of worker-based turnover.

Conclusions and Policy Implications

As long as the economy remains strong, the nation's labor market will continue to absorb the influx of would-be-workers leaving the welfare rolls. The labor force activity of low-skilled women overall has been rising, and employers in the current tight labor market are generally willing to hire welfare recipients. Historically, the labor market adapts to new supplies of workers as well as to new technology, industry shifts, and other structural changes in the economy; and it is very likely to do so again in this era of welfare reform.

However, concerns about the situation facing low-wage workers, whether or not they are coming from welfare, remain. Opportunities for work will not be strong in some areas of the country, and some workers may have difficulty entering and remaining in the labor market. In large urban areas with high concentrations of poverty and welfare recipients, for example, disadvantaged workers may face increased competition for jobs, spatial mismatch between jobs and job seekers, and lack of adequate public transportation.

In addition, because of their low skills and low educational levels, most welfare recipients will qualify for jobs that are relatively low-paying, concentrated in the secondary labor market, and subject to high turnover. Some labor economists also suggest that a large influx of welfare recipients, by increasing competition among low-wage workers for jobs, may depress wages.

The authors put forward several policy options for improving the wage, employment, and economic self-sufficiency outcomes of former welfare recipients and other low-skilled workers.

Policies to increase wages and sustain income

A modest increase in the minimum wage could increase the earnings of over one million parents (mostly single mothers).

Encouraging and simplifying the application of the EITC could increase the number of eligible families that use this tax credit. Also, retaining tax credits for hiring, such as the WOTC, could encourage some businesses to hire targeted worker populations, even though the overall effect on expanding employment is minimal.

Policies to improve labor market access and job retention

Continued funding and support for programs that provide labor market information, job networking, job retention counseling, and career planning may improve employment and job retention prospects for the poor who otherwise lack access to such information and assistance.

Low-income workers in general, and especially low-income working parents, tend to benefit from supports and services such as child care and transportation.

Policies to encourage or support occupational mobility/job advancement

Businesses and industries could be encouraged to delineate skill requirements and possible career ladders for workers who begin in entry-level jobs. In addition, financial incentives could be used to encourage businesses to provide on-the-job training for career ladders.

The continuing development of information networks should help workers better understand possible career opportunities and make more informed employment decisions.

Policies to enhance employment security

Targeted public and community service employment strategies could complement the regular labor market. For example, combining part-time public service employment with part-time regular employment might help a disadvantaged worker achieve full-time status if full-time work cannot be found in the regular sector. If designed well, public service employment can also provide substantive occupational experience and improved job skills.

Providing workers access to short-term (even part-time) community service jobs can serve as a bridge between jobs, to provide safety net income to workers not eligible for unemployment insurance.

Low-skilled workers, including most persons leaving welfare, can and do work, but they generally qualify initially only for low-wage jobs with high turnover and few benefits. Carefully designed public policies can help those workers remain continuously employed and thereby increase their incomes. Low-wage entry-level jobs can serve as a first step up the occupational career ladder, but only if the worker has access to services, information, further skills development, and support networks. Meanwhile, there may also be a need to consider policies to ensure a basic income safety net for working poor parents, especially during periods when they are between jobs.

Section I

What Is the Low-Wage Labor Market and Has It Changed over Time?

Chapter 1

Defining and Characterizing the Low-Wage Labor Market

Jared Bernstein and
Heidi Hartmann

Introduction

Reform of the nation's welfare system, particularly its welfare-to-work component, has focused the attention of policymakers, advocates, and the poor themselves on the low-wage labor market. Indeed, the success of welfare reform is largely dependent on moving recipients off the welfare rolls and into market work, which, given the education and skill levels of the typical welfare recipients, will be work at low wages.[1] This focus requires a realistic understanding of the low-wage sector: Can it successfully absorb those coming off the welfare rolls? What are their hours of work and earnings likely to be? What impact will welfare-to-work have on the living standards of former welfare recipients? What will be the impact on their children?

These questions can only be addressed, however, when the low-wage labor market has been adequately defined, a task that depends on the answers to a different set of questions: How does the low-wage sector differ from the rest of the labor market? Who works there? What is the industry/occupation structure of this sector? Are these characteristics changing? Is it becoming more or less likely that someone will be a low-wage worker? What policy initiatives

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might help low-wage workers? This paper defines and characterizes the low-wage labor market by addressing such questions.

The main findings of the paper are:

- Definitions of the low-wage labor market fall into two basic groups. Job-based definitions identify a set of jobs characterized by low wages, few benefits, and little upward mobility. Worker-based definitions are typically based on a worker's absolute or relative hourly wage, earnings (wages times hours worked), or educational level. Job-based definitions provide the theoretical foundation and worker-based definitions, the empirical basis for study of the low-wage labor market.

- Irrespective of definition, there is a strong empirical consensus that there has been a long-term decline in the real earnings of low-wage workers and/or an increase in their numbers as a share of the workforce.

- Low-wage workers are disproportionately female, minority, non-college-educated, nonunion, and concentrated in retail trade.

- These characteristics notwithstanding, the low-wage workforce is becoming more male and more highly educated, which is to be expected given widespread educational upgrading and the long-term wage decline among non–college graduates.

- The likelihood of being a low-wage worker has increased, even when the wage impacts of changes in education, experience, occupation, and industry are taken into account.

- Rising education and experience levels and occupational upgrading have combined to prevent the share of female workers in low-wage jobs from rising. This has not been the case for men, even though their total share of the low-wage workforce is still below that of women.

- Supply-side interventions, such as worker training, are clearly important. Increasing labor demand through policies that keep aggregate unemployment low—combined with policies that shore up labor market institutions such as the minimum wage and labor unions—can also help improve the economic prospects of those in the low-wage sector.

Defining the Low-Wage Labor Market

In the most basic economic model of the labor market, there are no identifiable characteristics that separate the low-wage sector from the rest of the market. The labor market is one in which a worker's wage is determined solely by the value of that worker's marginal product—that is, how much his or her labor adds to the total product of the firm. Consequently workers with lower productivity are paid less than those who contribute more to the firm's output. However, more nuanced treatments of the labor market have evolved over time that provide

both a theoretical justification and an empirical basis for studies focusing specifically on the low-wage sector of the market. These can be grouped into two major categories: job-based and worker-based (see table 1).

Table 1
Definitions and Concepts Used in Analysis of Low-Wage Labor Markets

Job-Based	Worker-Based
Segmented Labor Markets	**Wages**
-low mobility	-absolute wage levels
-low wages with slower-than-average growth	-characteristics and shares of workers earning "poverty-level" wages
-no fringe benefits	-relative wages
-high levels of turnover	-characteristics of workers in (e.g.) the bottom 20 percent of the wage scale
-little worker bargaining power	-trends in real wages by percentile
-no internal labor markets	
-race- and gender-based discrimination	
Wage Contours	**Employment**
-groups of jobs with "common wage-making characteristics"	-high levels of unemployment and underemployment among those with "low-wage profiles"
-wages in such jobs tend to move together and tend to be tied to the minimum wage	-low rates of employment
	-marginal labor force attachment
	-frequent cycling in and out of labor market
	Education level
	-wage trends and workers' characteristics by education level, typically high school or less

Job-Based Definitions: A Strong Theoretical Foundation

Job-based definitions focus on a set of jobs with characteristics that lead both to working poverty and reducing upward wage and income mobility. There are two major variants of this definitional approach: segmented labor markets and wage contours.

Segmented Labor Markets. The fundamental insight of this branch of analysis is that jobs are organized into two separate segments and that there is more labor mobility within each segment than between them.[2] Jobs in the primary segment are core jobs. These pay higher wages and are more likely to provide fringe benefits (such as health insurance and paid vacations) than jobs in the secondary segment. They also have ladders upward (often within the same firm), whereby workers can steadily improve their earnings and living standards over time. Jobs in the secondary segment, on the other hand, are peripheral jobs. They pay low wages, offer few benefits, tend to be nonunion, and generally have worse working conditions than core jobs in the primary sector. They are also less stable than core jobs, with high job turnover and much

churning but little upward mobility. Race- and gender-based discrimination are also more common in the secondary than in the primary segment.

Wage Contours.[3] The primary insights here are (1) that there are groups of jobs that share characteristics that together lead to wage levels within an identifiable range and (2) that wages in these groups of jobs move, over time, in a related manner. The group of jobs on a contour defined by the minimum wage provides a good example.[4] These jobs tend to be in low-wage industries like retail trade and personal services and in occupations like low-end sales, administrative support, and other service occupations. Workers on the minimum wage contour tend to be the traditional victims of labor market discrimination and have suffered most from declining real wages over the past 15 years.

Job-based definitions provide a compelling conceptual structure within which to understand the low-wage labor market. They offer a rich model of the determinants of wages and employment, which, unlike traditional labor market theory, can incorporate the role of labor market institutions (such as unions, minimum wage legislation, and international trading regimes), along with established power dynamics (such as race- and gender-based discrimination).

Their very richness, however, makes them difficult to use in empirical analysis. Few available data sets have the level of job-based information needed for such analysis. Since worker-based definitions are more empirically tractable, and since the job-based approach yields empirical results that mirror those based directly on a worker-wage definition (discussed below), the greatest contribution of the job-based approach is the solid and innovative theoretical grounding it provides for the empirical work on the low-wage labor market as defined by worker characteristics.

Worker-Based Definitions: The Primary Basis for Empirical Work

The set of definitions more typically seen in contemporary research on the low-wage labor market focuses on the characteristics of workers (or potential workers) themselves—such as wage level, earnings and hours worked, or skill level.

Wage Level. Defining the low-wage labor market by the wages of its workers is clearly tautological. Even so, it is certainly reasonable to define, or at least discuss, the low-wage labor market by referring to the wage level itself. After all, the definition one chooses will correlate strongly with low levels of compensation if it is to be useful. And looking at the other characteristics of persons who work for low wages can tell us quite a bit about who the low-wage worker is likely to be.

The disadvantage of a simple wage-based approach is that it treats all workers who happen to be receiving low wages at a given point in time as similar, which covers up the important issue of differential labor mobility. A college student in a low-wage job, for example, is typically of much less policy concern than a single mother stuck indefinitely in a dead-end job.

This is a less-severe problem than it first appears, however, and can be alleviated by taking snapshots of the wage distribution at different points in time. Such snapshots allow compar-

isons of the different characteristics of workers at different wage levels. Unless the rate of mobility (that is, the speed with which workers move up the wage distribution) changes, comparing snapshots over time presents a useful description of the conditions of the low-wage sector and the characteristics of those who work there. For example, as discussed further below, declining real wages in the low-wage sector have led to increasing shares of the workforce being in low-wage jobs over time, and these workers are older and more highly educated than their predecessors. Unless older, better-educated workers who start out earning low wages are jumping ahead more quickly than in the past—and there is actually evidence to the contrary—these findings imply that the low-wage sector has truly expanded and includes older and better-educated workers.

The Absolute Wage Approach. The easiest wage-based definition to understand and interpret is an absolute measure. Analysts look at the share of the workforce in the same real wage range in different years and observe both the characteristics of workers and the proportions of workers within those ranges at particular points in time. A common way of determining such wage ranges is to use the U.S. standard poverty level as a reference and divide the wage distribution by multiples of the wage rate derived from that level. Table 2, for example, divides the poverty level for a family of four ($16,400 in 1997) by 2,080 hours (52 weeks of work at 40 hours a week) to derive an absolute wage-level cutoff for the low-wage sector of $7.89 an hour. Using the poverty level for a family of three would yield a correspondingly lower wage-level cutoff for that sector.[5] The table then shows comparisons between that sector and two higher wage ranges defined, respectively, as wage levels between the poverty-level wage and twice that level, and wage levels above twice the poverty-level wage.

Besides being easy to interpret, the absolute measure has the advantage of facilitating comparisons of absolute living standards (that is, real consumption opportunities) between low-wage and other sectors. It is, of course, sensitive to how price changes over time are measured. Any bias in the Consumer Price Index, for example, will be reflected in a corresponding bias in absolute wage rate comparisons. Any absolute measure is also unavoidably arbitrary. This weakness can be alleviated by doing sensitivity tests. These tests, by replicating the calculation for wage levels around the central choice, show how sensitive the results are to the particular wage level chosen.

The Relative Wage Approach. The danger of bias from measured prices failing to accurately reflect changes in real living standards is removed if the wage-based definition uses a relative approach, for example, by referring to the bottom 20 percent of the wage distribution. This definition has intuitive appeal because all would agree the bottom 20 percent are worse off relative to the top 20 percent, for example. The downside of relative measures is that they are not as rigorously tied to changes in living standards as absolute measures. Thus, the living standards of relatively low-wage workers—those in the bottom 20 percent, say—could rise markedly if real wages rose throughout the distribution, yet they would still be classified as low-wage workers. In other words, this approach allows for no change in the proportion of the workforce that is defined as low wage.

One way to solve this problem within the relative framework is to define low earnings as a fraction of the median wage.[6] This measure will move with the median (a relative measure),

Table 2
Characteristics of Workers by Wage Range, 1997*

1. Wages	Low	Middle	High	Total
A. Average Wage				
All	$5.92	$11.20	$25.03	$13.51
Men	6.01	11.36	25.82	15.11
Women	5.86	11.02	23.57	11.76
B. Share of Total				
All	28.6%	43.7%	27.7%	100.0%
Men	22.5	43.2	34.3	100.0
Women	35.3	44.3	20.4	100.0
2. Gender				
Men	41.2%	51.7%	64.8%	52.3%
Women	58.8	48.3	35.2	47.7
	100.0	100.0	100.0	100.0
3. Race/Ethnicity				
White	63.0%	74.5%	83.2%	73.6%
Black	15.4	11.9	6.9	11.5
Hispanic	17.2	9.6	5.1	10.5
Other	4.4	3.9	4.7	4.3
	100.0	100.0	100.0	100.0
4. Age				
18-25	36.4%	13.7%	2.5%	17.1%
26-35	24.3	31.6	23.8	27.3
35+	39.3	54.8	73.7	55.6
	100.0	100.0	100.0	100.0
5. Education				
Less than high school	22.9%	9.1%	2.2%	11.1%
High school	39.3	37.8	19.6	33.2
Some college	24.0	22.5	15.7	21.0
Associate degree	5.5	9.6	9.8	8.5
College or more	8.3	21.1	52.7	26.2
	100.0	100.0	100.0	100.0
6. Industry				
Agriculture and forestry	3.2%	1.1%	0.4%	1.5%
Mining and construction	3.7	7.3	6.7	6.1
Manufacturing	12.9	20.1	20.1	18.0
Wholesale trade	2.8	4.4	3.9	3.8
Retail trade	31.7	12.0	5.5	15.8
Finance	4.0	7.2	7.8	6.5
Transportation and utilities	3.9	8.2	10.8	7.7
Business services	6.4	5.8	5.4	5.9
Personal and entertainment	8.9	3.7	1.9	4.7
Medical services	8.0	10.3	10.4	9.7

Education and social services	10.1	10.6	12.8	11.1
Professional services	2.3	4.0	6.2	4.1
Public administration	1.9	5.4	8.0	5.1
	100.0	100.0	100.0	100.0
7. Occupation				
Managers and professionals	9.4%	23.8%	55.9%	28.6%
Sales	16.2	8.9	8.8	11.0
Technical	1.4	4.4	5.0	3.7
Clerical	15.0	20.9	7.5	15.5
Private household services	1.6	0.0	0.1	0.6
Protective services	1.7	2.1	2.1	1.9
Other services	25.5	7.2	1.3	10.8
Operators and transportation	25.6	31.3	19.1	26.3
Farming	3.6	1.0	0.3	1.6
	100.0	100.0	100.0	100.0
8. Union Status**				
Union	5.7%	15.1%	22.7%	14.5%
Nonunion	94.3	84.9	77.3	85.5
	100.0	100.0	100.0	100.0

* Wage ranges are multiples of the poverty level for a family of four divided by full-time, full-year work (see text).
** Refers to union membership, excluding nonmembers who are covered by collective agreements.
Source: 1997 CPS ORG.

but it allows the share of workers who fall into the low-wage category to vary over time. Again, however, an increasing median (implying increasing multiples of the median) would mean that at least some in the low-wage category will increase their standards of living over time.

Another limitation of the hourly wage level definition is that it fails to account for the possibility that workers may not work enough hours to meet their families' economic needs. Even if the wage structure were to rise high enough for workers at all wage levels to be able to support their families if they worked full-time/full-year, there is still the issue of whether enough hours of work are available in the low-wage sector.

Earnings/Hours Worked/Time Employed. The problem of work availability is very real for the low-wage sector. There is considerable evidence that disadvantaged workers (for example, workers whose personal characteristics are correlated with low earnings or incomes) experience higher levels of unemployment or underemployment than those with characteristics associated with higher earnings, even when the economy is strong. Furthermore, the share of persons with low-wage characteristics (such as young, less-educated minorities) who fail to participate in the labor market has increased over time.

To take this factor into account, analysts use definitions based on a variety of measures of time working. Blank (1994), for example, looks at the unemployment of family heads and finds that in 1991 (a business cycle trough), 40 percent of the reported weeks of unemployment by family heads occurred in the bottom 20 percent of the income distribution. Another approach looks at weeks unemployed and weeks out of the labor market altogether.[7] This

approach has found that between the late 1960s and the late 1980s, the largest deterioration occurred among workers in the bottom 10 percent of the wage distribution. Yet another variant looks at employment, unemployment, and underemployment.[8] This approach reveals, for example, that in 1996–97, when the national unemployment rate was 5.2 percent, it was 19.7 percent for young (ages 16 to 25) African American women with a high school degree.

Results like these imply that, even in periods when wage levels are rising, low-wage workers will often not be able to work enough hours to fully meet their economic needs. Furthermore, they suggest that comparisons of the share of the workforce that is in the low-wage sector over time will progressively underestimate the size of the low-wage workforce. This is because the share of the potential low-wage workforce that is out of the labor market is not counted in the comparison because they earn no wage at all.

Education. A measure of the low-wage sector that does not depend on actual wage or earnings levels, although highly correlated with them, is education level. Low-wage workers are often those with a high school degree or less.

This approach has some intuitive appeal, particularly since the wages of those with college degrees increased sharply over the 1980s[9] while the wages of those with a high school degree or less fell steeply. But it has two limitations. First, as of 1997, the "high school or less" definition included 44.3 percent of the workforce.[10] Even avid critics of the U.S. labor market might be hard pressed to argue that such a large share of the workforce was "low-wage" or "low-skilled." Second, as with the relative wage approach, the sector of workers defined as low wage by the education approach will not change, even if rising real-wage levels in fact increase their standards of living.

Thus, there is a range of worker-based definitions of the low-wage labor market, each with its own strengths and limitations. Together they provide a portrait of the low-wage labor market and the workers in it, from which potentially useful policy conclusions can be drawn. The next section of the paper lays out the characteristics of low-wage workers, defined as workers who earn poverty-level hourly wages or less. This is followed by a discussion of how the low-wage labor market sector, variously defined, has been changing and the factors that have led to these changes.

Characteristics of Low-Wage Workers

A useful way to begin a statistical description of low-wage workers is with the poverty-level wage approach described in the previous section.

Table 2 shows the characteristics of U.S. workers in 1997 by wage range. The low-wage sector (column 1) is defined as those who earn $7.89 an hour or less—$7.89 being the hourly wage of someone who, if they worked 40 hours a week, 52 weeks a year, would have annual earnings equal to the 1997 poverty line for a family of four. The medium-wage sector (column 2) is defined as those who command wage rates that would put them between the poverty line and twice the poverty line if they worked full-time/full-year in 1997 ($7.90–$15.78).

The high-wage sector ($15.79 and above) is defined as those who command wage rates that would put their annual income above twice the poverty line if they worked full-time/full-year in 1997.

Table 2 holds no real surprises. Compared to the overall workforce, low-wage workers are more likely to be women, minority, non-college-educated, nonunion, in the retail trade industry, and in low-end sales and service occupations.

The top panel in this table (1A and 1B) presents average wages and the share of workers in each wage sector, by gender. For workers in the low-wage sector, the average hourly wage in 1997 was $5.92, about 44 percent of the average wage of the workforce as a whole. For women, the low-wage share of the workforce was 35.3 percent, about 12.8 percentage points higher than the low-wage share for men and about the same as the high-wage share for men. Clearly, by this definition, the low-wage sector consists of a nontrivial share of workers.

The rest of the table shows the shares of workers with particular characteristics within each wage range. Panel 2 shows that the majority of low-wage workers (58.8 percent) are women. Comparing the shares of the sexes in the different wage sectors with those in the total column reveals the extent to which workers in different wage sectors are disproportionately represented in the total labor force. Women, for example, constituting 47.7 percent of the total, are overrepresented in the low-wage sector. Minorities are also overrepresented in that sector. The share of Hispanics, for example, is 17.2 percent, compared with their 10.5 percent share of the labor market overall. Whites are the only racial group underrepresented in the low-wage category (63.0 percent versus 73.6 percent overall).

With respect to age (panel 4), workers in the low-wage sector are younger on average than in the more highly paid sectors. Just over 60 percent of low-wage workers average 35 years of age or less, compared with about 40 percent of the high-wage workers.

Education levels (panel 5) are relatively low for the low-wage sector. Nearly two-thirds have a high school degree or less, compared with under one-half of the medium-wage group and about one-fifth of the high-wage group. Virtually no high-wage workers have less than a high school degree. Figure 1 highlights the same information for the low-wage and high-wage groups. Over half of the high-wage group have a college degree or more, for example, compared with less than one-tenth of the low-wage group. Almost four-fifths of the high-wage group have at least some college, compared with just over one-fifth for the low-wage group.

By far the most populated industrial category for low-wage workers is retail trade, accounting for almost one-third of the low-wage workforce. Low-wage workers, in contrast, are underrepresented in the industries typically associated with higher-quality jobs for non-college-educated workers, such as manufacturing, mining and construction, and transportation and utilities.

For occupational categories, low-wage workers are disproportionately represented in low-end services occupations ("other" services include such occupations as food and cleaning services) and sales (such as cashiers and other sales jobs in retail). Finally, low-wage workers are much less likely to be members of unions than their higher-wage counterparts. Only 5.7 percent of the low-wage group are in unions, for example, compared with 15 percent in the medi-

um-wage group, 22.7 percent in the high-wage group, and 14.5 percent in the workforce as a whole.

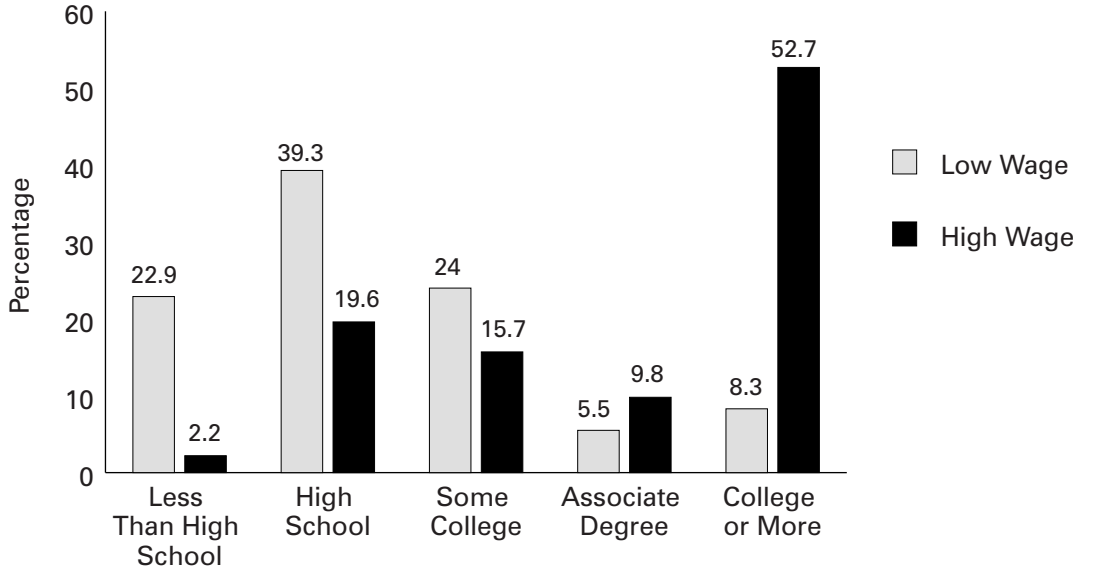
A limitation of the definitional approach to the low-wage labor market taken in table 2, as noted, is that it compares workers as if they all worked full-time/full-year, which ignores that fact that many in low-wage jobs do not work as many hours as they would like. Figure 2 shows the share of poor families with children that have at least one full-time/full-year worker. In 1997, less than one-quarter of poor families had such a worker, a slightly higher proportion than in previous decades.

Another potential limitation of table 2's approach is that it shows pre-tax, pre-transfer income, which is different from the amount of disposable income available to such a family. At the average wage rate for women in the low-wage labor market of $5.86 an hour in 1997, for example, a woman who worked full-time/full-year would have had a pre-tax income of $12,200. When the Earned Income Tax Credit, the cash value of food stamps, federal and state tax payments, and uncompensated work expenses (including child care) are incorporated into the calculation, this woman's family would end up with a slightly higher ($13,231) income to spend.[11]

Changes in the Low-Wage Labor Market over Time

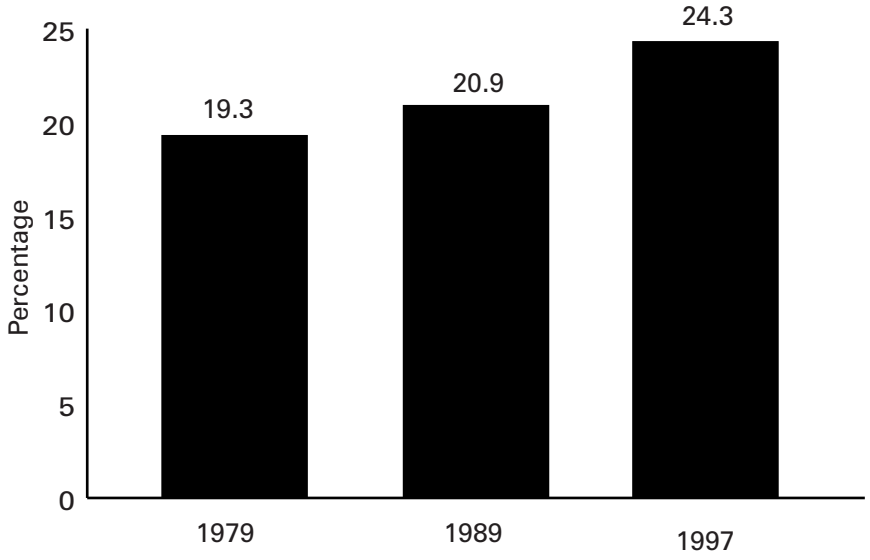
To put the 1997 picture of the low-wage labor market into a broader perspective, figures 3 through 6 look at trends over the 1973–97 period from a variety of perspectives. Whichever

Figure 1
Education Shares, Low- and High-Wage Workers, 1997



Source: Table 2.

Figure 2
Percent of Poor Families with Children with at Least One Full-Time/Full-Year Worker



Source: Authors' analysis of March CPS data.

perspective is taken, the story is essentially the same. Real wages have fallen for the low-wage sector of the labor force.

Wage-Rate Perspective. Figure 3 shows the share of workers earning poverty-level wages or less, by gender (the 1997 figures are the same as those in table 2, panel B, column 1). The middle line shows a rising trend for all workers, from 23.7 percent of the workforce in 1973 to 28.6 percent in 1997. This trend, as discussed in more detail below, has been driven exclusively by men. Women workers are still more likely to be in the low-wage sector than men, but their probability of being there has actually declined slightly over the last 25 years.

Employment/Hours Perspective. Figure 4 shows the trend in the proportions of persons, in families with children, who worked full-time/full-year and still had annual earnings below the poverty line for a family of four. Their share increased about 4 percentage points between 1979 and 1989. This is consistent with the trend in figure 2, which shows an increase since 1979 in the share of poor families with children that have at least one full-time/full-year worker. A greater share of female-headed than male-headed poor families with children had at least one full-time worker throughout this period. This share fell during the 1970s, grew 4 percentage points in the 1980s, and has been flat in the 1990s. By 1997, one-quarter of female-headed families with children had a full-time worker with poverty-level earnings.

Education Perspective. Figure 5 shows the trend in real hourly wages for workers with a high school education or less by gender for the 1973–97 period. The real hourly wages for men and women with less than a high school degree fell by 30 percent and 16 percent, respective-

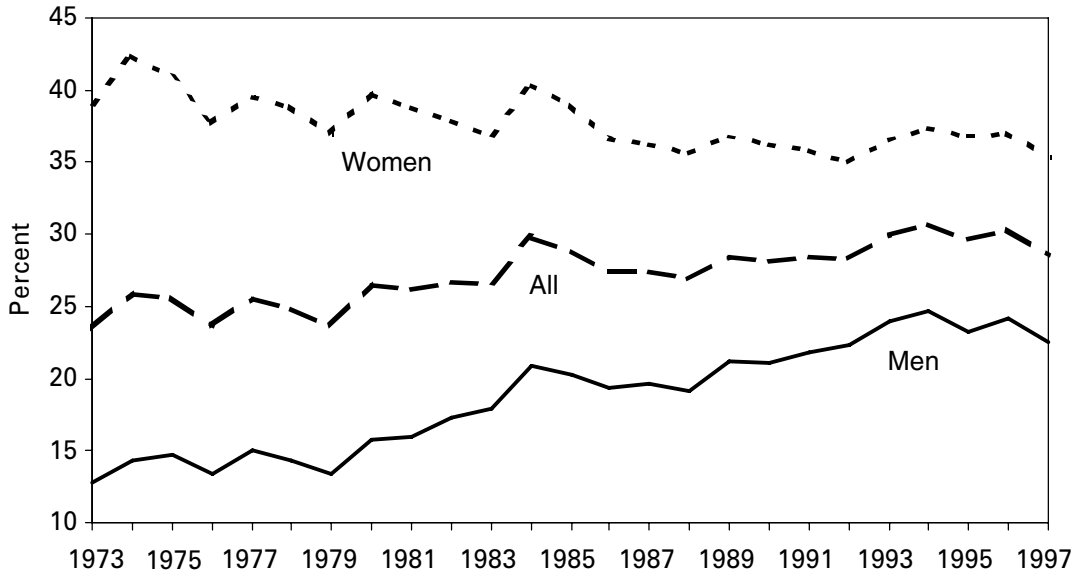
ly, over this period. For high school graduates, real hourly wages fell by 17 percent for men, but by only about 3 percent for women.

Relative Wage Perspective. Figure 6 shows real hourly wages for both men and women in the 10th and 20th percentiles of the wage distribution. For men and women in the 10th percentile, and for men in the 20th percentile, real wages fell by 16 to 18 percent. For women in the 20th percentile from the bottom, the picture was somewhat less discouraging. They suffered a real wage drop of only 7.6 percent.

Shifts in Worker Characteristics over Time. Table 3, which takes the same measurement approach as table 2, examines changes in the characteristics of low-wage workers. Over the roughly 25-year period, the average real wage of the workforce as a whole remained virtually unchanged. Within this overall wage stability, however, there were substantial differences by wage sector and sex.

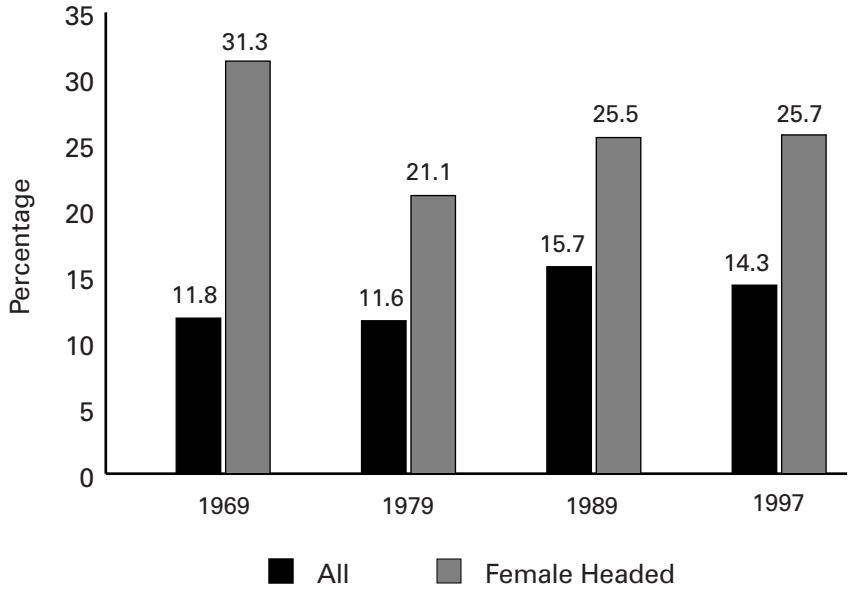
The low-wage sector lost substantial ground (real wages falling by over 7 percent). The middle-wage sector lost only slightly more than the workforce as a whole. The high-wage sector gained considerably (9.4 percent increase over the period). Wage growth was strongest for women, with real wage rates growing by almost 13 percent over the period. Within this overall average, however, women in the low-wage sector lost ground (with their average wage rate

Figure 3
Percentage of the Workforce Earning Low Wages, 1973–97, by Gender



Source: Authors' analysis of March CPS data.

Figure 4
Persons, in Families with Children, Who Work Full-Time/Year-Round and Have Annual Earnings at or below the Poverty Level, 1969–97



Source: U.S. Bureau of the Census (1992) and unpublished data.

dropping by 8 percent). Men lost ground overall, as did men in low-wage and middle-wage sectors. But the high-wage men gained almost as much as the high-wage women.

With respect to workforce, employment in the low-wage sector grew by 4.9 percentage points. Within this average, the share of men that are in the low-wage sector grew by over 9 percentage points while the share of women that are low-wage remained virtually unchanged.

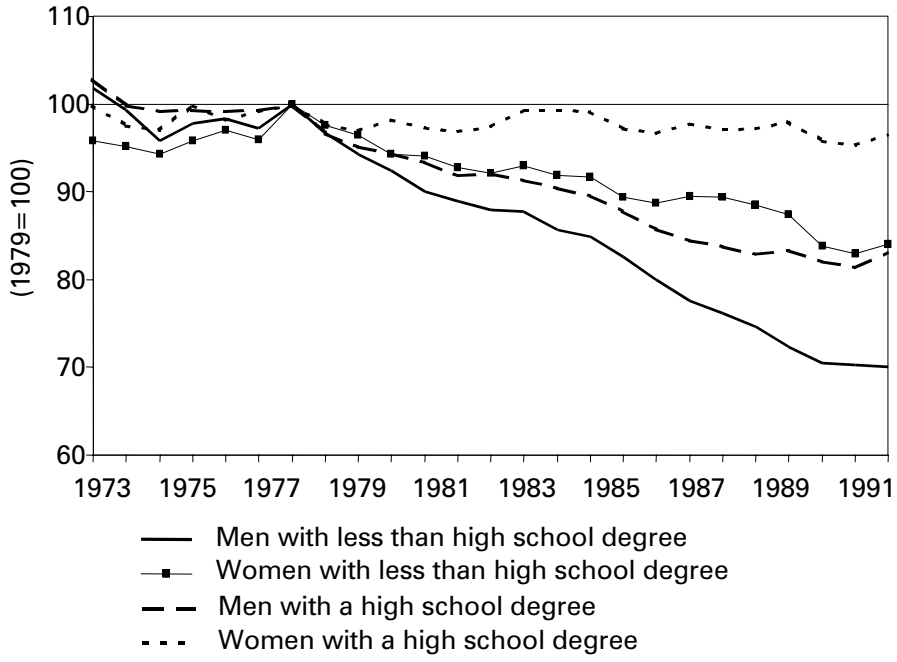
The rest of table 3 shows the changing characteristics of workers within each wage group over time. Like the rest of the workforce, the low-wage sector included more minorities and became older, more highly educated, and less likely to work in the manufacturing industry. Unlike the rest of the workforce, however, the low-wage sector included less women. Women made up an additional 4.3 percentage points of the total workforce, while their share in the low-wage group fell 9 percentage points. The "high school or less education" category declined by 13.5 percent.[12] It may seem surprising that, in a period when the economic returns to education were rising (particularly over the 1980s), a larger share of those earning low wages were better educated at the end of the period than at the beginning. But this is the unavoidable outcome of long-term educational upgrading combined with long-term wage decline. Between 1979 and 1997, for example, the share of the workforce with less than a high school degree fell from 20.1 to 11.1 percent. In the absence of this educational upgrading, even larger shares of men and women would have been in the low-wage sector in 1997.

By industry, low-wage workers became less likely to work in manufacturing and more likely to work in low-wage services like retail trade and "temporary" office services. The occupational shifts within the low-wage sector were primarily a 7.6 percentage point increase in the share of the low-wage sector employed in sales and an 8.4 percentage point drop in the share employed in clerical jobs (compared with an *overall* drop of 4.5 percentage points in the share employed in clerical occupations).

Explaining the Growth in the Low-Wage Labor Market

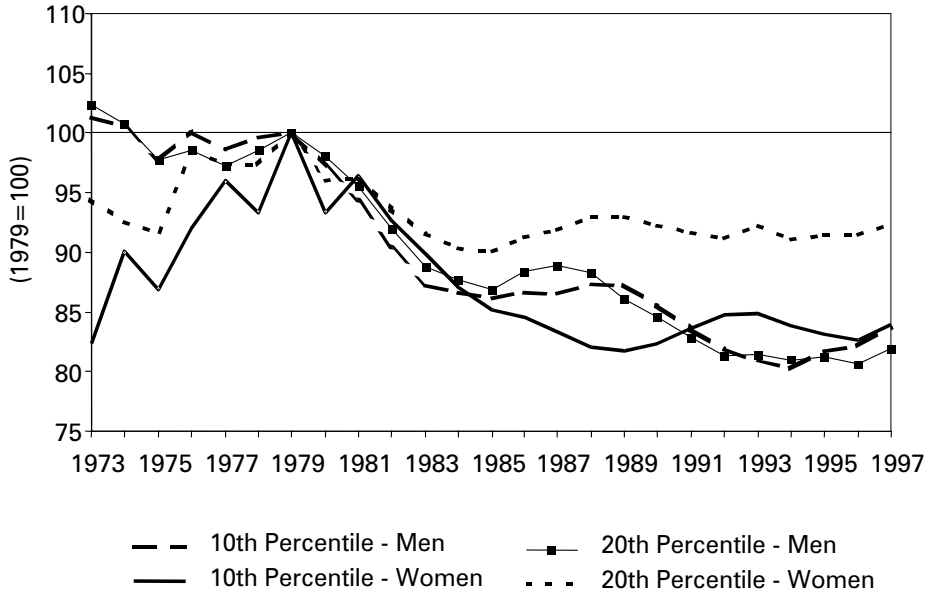
The discussion so far makes it clear that the probability of being a low-wage worker has increased, an increase that has been driven by an increasing share of men in the low-wage sector. In addition, the low-wage workforce has become more highly educated but has seen falling real wages. This section addresses some of the reasons behind these changes. The findings discussed are based on a statistical technique called regression analysis, which allows the contribution of different causal factors to be distinguished from one another.[13] Thus, the impact of changes in the economic returns to education, experience, occupation, and industry

Figure 5
Average Real Hourly Wages of Men and Women with a High School Degree or Less, 1973–97, Indexed to 1979



Source: Mishel, Bernstein, and Schmitt, 1999b.

Figure 6
Real Wages for Men and Women in the 10th and 20th Percentile of the Wage Distribution, 1973–97, Indexed to 1979



Source: Mishel, Bernstein, and Schmitt, 1999b.

can be separated from the impact of changes in the characteristics of the workforce, and from the impact of the changes in the likelihood of being in the low-wage market.[14]

Disentangling Impacts. Using education as an example helps to explain why it is important to disentangle the contributions of these three separate sets of factors, all of which have caused the low-wage sector of the labor market to grow. If the likelihood of being a low-wage worker falls over time, it might be because the education premium increases (that is, the extra earnings that come with additional education, say, being a high school graduate rather than a high school dropout, increase). In this case, the share of low-wage workers would fall even if the educational characteristics of the low-wage workforce remained unchanged. But what if the economic returns to education remained the same but the characteristics of the workforce improved (that is, a larger share of the workforce went to college)? In this case, the low-wage share of the workforce would also fall, but the cause would be different. It is also possible for the low-wage share to fall, even if the returns to education *and* the characteristics of the workforce remained unchanged, because of structural changes in the economy and/or institutional changes in the labor market. The next section discusses the relative importance of changes in the economic returns to work, in the characteristics of the workforce, and in the structural and institutional factors in explaining trends in the low-wage labor market over the past 25 years.

Table 3
Changes in Selected Workforce Characteristics by Wage Range,* 1979–97

	Low-Wage Workers	Mid-Wage Workers	High-Wage Workers	Total
Average Wage			Percent Change	
All	–7.3%	–1.3%	9.4%	–0.5%
Men	–6.6	–3.5	11.0	–5.6
Women	-8.0	1.3	12.1	12.9
Distribution across Wage Groups			Percentage Point Change	
All	4.9	–3.0	–1.9	0.0
Men	9.1	–0.3	–8.8	0.0
Women	–1.8	–6.6	8.5	0.0
Change in Characteristics within Wage Group			Percentage Point Change	
Women	–9.0	–1.0	17.7	4.3
White	–12.7	–7.3	–4.5	–8.5
High school or less	–13.5	–17.6	–26.0	–17.9
Ages 18 to 25	–7.6	–13.4	–6.3	–8.6
Manufacturing	–3.5	–8.1	–10.6	–8.1
Retail trade	1.8	0.0	–0.5	1.4
Business services	2.7 2.6	2.8 2.7		
Sales occupations	7.6	–4.4	3.6	5.3
Clerical occupations	–8.4	–3.7	–2.5	–4.5
Union**	–0.2	–9.6	–17.9	–10.1

* Wage ranges are multiples of the poverty level for a family of four divided by full-time, full-year work (see text).
** Since the 1979 CPS does not carry the variables necessary to determine union membership, the trends in union membership shown here are for 1978–97.

The Findings. Changing returns to work, other things equal, have lowered the probability of being in the low-wage sector for both men and women. Worker characteristics—educational and experience upgrading for men and women and occupational upgrading for women generally—have also lowered the probability of low-wage work, other things equal. Yet, the probability of low-wage work increased for the overall workforce. How can we explain this apparent riddle?

The answer is that the probability of low-wage work increased *within* groups of workers narrowly defined by age, race, education, occupation, and industry.[15] Even after controlling for changes in all of these characteristics and their returns, we are still left with the secular increase in the probability of low-wage work.

What would have happened if there had been no changes in the economic returns to work or workforce characteristics? The probability of being in the low-wage sector would still have increased for both sexes, but the increase would have been much larger for men than for women.[16]

Various changes in the structure of the U.S. economy and labor market account for the increased probability of a worker being in the low-wage sector, irrespective of changes in the economic returns to work and the characteristics of the workforce. Explanations fall into two general camps: (1) a shift in labor demand against low-wage workers, driven by globalization and technological change, and (2) erosion of the institutions that used to bolster the economic conditions of the low-wage sector.[17]

Labor Demand Shift. The demand-shift argument interprets the sharp increase in educational returns over the 1980s as evidence that the demand for labor has shifted against the low-skilled worker. This shift, in turn, is due to an increasing mismatch between the skills these workers bring to the labor market and the skills employers seek, according to this argument. There is some evidence to support the demand-shift argument, particularly for workers at the very lowest skill level.[18] But this cannot be the complete explanation, for several reasons. First, it fails to account for the increasing share of the workforce in the low-wage sector, irrespective of educational change. Second, wages have fallen for some groups of workers at *all levels of education* (even though the fall has been sharpest for the least educated).[19] Third, if a labor demand shift were the complete explanation, one would expect to find persistent increases in the returns to education combined with declining employment opportunities for low-wage workers. But neither is true in the current economic recovery. Returns to education have significantly slowed for both men and women. Furthermore, low-wage employment, particularly at the low end of the service sector, has been growing quickly over this economic recovery, and the Bureau of Labor Statistics projects that some of the largest sources of future job growth will be in the low-wage categories (such as cashiers, retail sales workers, and low-wage clerical workers).[20]

Eroded Labor Market Institutions. This argument holds that a set of labor market institutions that have historically bolstered the wages of those in the low-wage sector have weakened in their protective role. Such institutions include minimum wage laws, unions, monetary policy, and trading regimes that protected jobs in favored industries. The real value of the minimum wage has fallen. Unbalanced trade in manufactured goods has expanded. The Federal Reserve has kept the unemployment rate at specific targets set to keep inflation down rather than employment up. All these factors have, indeed, reduced the ability of low-wage workers to keep their wages ahead of inflation.

Policy Options to Help Low-Income Workers

So, low-wage workers are being hurt in the current economy not only by weak labor demand for the least skilled but also by the eroding of institutions that have historically protected them. In the current debate, however, the weak demand explanation has received most of the attention. The eroding institutions argument has received short shrift given its importance.

Workers with higher skills are always less likely to be low-wage workers and, in this regard, policies that stress skill upgrading are sure to be helpful. But the findings reported here show

that the low-wage share has become better educated over time—and that this educational upgrading has failed to lower the share of low-wage workers because of real-wage declines *even within education categories.* Thus, skill improvements alone will not solve the problem of the increasing share of the workforce in the low-wage sector, particularly in the short and medium term. The steady increase in the likelihood of low-wage work—irrespective of changes in the economic returns to work and the characteristics of the labor force—makes a powerful case for policies that improve the demand side of the labor market, address the erosion of labor market institutions, and supplement the earnings low-wage workers can command with wage and income supports.

Increasing Labor Demand. The post-1996 period of the current economic recovery provides excellent evidence that increasing the demand for low-wage workers can play an important (and underappreciated) role in raising the wage levels and employment opportunities of low-wage workers. Persistently low unemployment rates have led to dramatic real wage gains for low-wage workers[21] And the tight labor market has led to historically large declines in the unemployment rates of disadvantaged workers who have been left behind in prior economic recoveries. Between 1996 and the first half of 1998, for example, the overall unemployment rate declined by 0.9 of a percentage point, to 4.5 percent. But the unemployment rates for workers traditionally lower down in the hiring queue declined more than the average—a 1.5-percentage-point drop for African Americans, a 2.0-point drop for Hispanics, and a startling 3.5-point drop for young (ages 18 to 35) minority high school graduates (a particularly disadvantaged group).

This suggests the need to rethink the question of when wage growth threatens to become inflationary, *in the sense of triggering ever-increasing price growth.* Conventional wisdom held that inflation would begin to spiral upward with the unemployment rate pegged at 6.0–6.5 percent. This parameter guided Federal Reserve monetary policy through much of the 1980s and 1990s, with low-wage workers suffering as a result. But the recent sharp decline in the unemployment rate to 4.5 percent—with no accompanying acceleration of inflation (indeed, inflation is also at a historic low)—has taken the unemployment rate as a key indicator into uncharted territory. The evidence is quite clear about the distributional consequences of the unemployment/inflation tradeoff. Declines in unemployment are more beneficial to lower-income families, whose wages are more sensitive to labor market tightening. Inflation at modest levels does more damage to those at the top of the income scale. (Spiraling inflation, obviously, hurts everyone).[22]

Strengthening Labor Market Institutions. Minimum wage law and union membership are the major factors at issue here. The general consensus is that the declines in the real minimum wage and in union membership explain up to two-fifths of the increase in wage inequality since the 1970s.[23]

The minimum wage has played an important historical role by providing a wage floor below which employers could not set wage rates. This floor is particularly important for female workers, who, as already noted, represent close to 60 percent of minimum wage workers. In recent years, the 10th percentile of the female wage distribution has, for all practical purposes, been set by the legal minimum. Thus, the fall in the minimum wage of 30 percent in real terms over

the 1980s played a major role in both the expansion of low-wage work and the increase in wage inequality, particularly among women. Here again, the conventional wisdom among economists has changed. It was generally held that increases in the minimum wage led to job loss among the low-wage workers it was supposed to protect. But now a growing body of empirical research has shown that this is not true, at least for increases of the magnitude implemented in the United States. The most recent 90-cent increase, for example, lifted the earnings of low-wage workers without leading to job losses.[24]

Unions have also played a historical role in the labor market, increasing the bargaining power and compensation both of their members and of workers outside the unionized sector. As with the decline in the minimum wage, empirical research has identified the decline in union membership among the workforce as an important contributor to the increase in wage inequality. As noted earlier, low-wage workers have historically been underrepresented by labor unions. However, recent efforts to organize low-wage service workers do look promising.

Wage and Income Supports. A stated goal of welfare reform is to make work pay.[25] One policy that has been implemented to increase the wages of low-wage workers beyond what they command in the market is employer-based wage subsidies. The problem with this approach is that, as the minimum wage literature has pointed out, the demand for low-wage labor is relatively insensitive to changes in its price—implying that large employer-based wage subsidies will be required to generate the desired increase in employment, and that the negative trends over the past few decades have made such an approach ever more expensive. Nevertheless, certain approaches have had some success, particularly those that are combined with training and job development.[26]

An employee-based wage subsidy—such as the Earned Income Tax Credit—is generally considered a more effective way to subsidize work. Transportation and child care subsidies will also help, by directly raising the spendable incomes of low-wage working families.

Conclusion

The advent of welfare reform, with its emphasis on welfare to work, has led to an increased interest in the low-wage labor market. Such interest is well served by examining the ways in which labor market analysts have defined the low-wage labor market in prior literature. A typology has been applied in the previous sections, drawing both on the early work of segmented labor market theorists as well as that of more contemporary empirical analysts.

Then some of the wage-based definitions were applied, which showed that under each definition wages and earnings have fallen for these workers. Examining the characteristics of low-wage workers (defined using absolute wage levels) reveals few surprises: such workers are disproportionately female, minority, with at most a high school degree. Over time, the share of women in the low-wage workforce has declined, and low-wage workers are better educated now than in the past. In addition, the likelihood of low-wage work has increased over time, driven by an increase in the number of men in this segment of the workforce. The low-wage share of female workers would have grown significantly had women not upgraded their education,

experience, and occupations. However, even after controlling for changes in both returns and characteristics, there has been a large, secular increase in the likelihood of work at low wages.

Explanations for the increase in low-wage work stress both a shift in labor demand against low-wage workers and the erosion of labor market institutions, which, in prior years, served to increase the earnings of such workers, both in relative and absolute terms. Both of these explanations have some validity, but concerns regarding eroding institutions get too little attention relative to the demand-shift arguments. Policies can be designed to both increase demand for low-wage workers and reinvigorate key institutions.

Appendix

Data and Methods

Wage Data: The wage data for tables 2, 3, and A1 come from the Outgoing Rotation Group (ORG) files of the Current Population Survey (CPS) for 1979–97. The sample includes all wage and salary workers, ages 18 to 64, with positive hourly wages between $0.50 and $100 in 1989 dollars. For hourly paid workers, the reported hourly wage is used; for weekly workers, the hourly wage is constructed by dividing usual weekly earnings by usual weekly hours. Top-coded weekly earnings were replaced with the estimated value of the mean weekly salary above the top code, using the assumption that the upper "tail" of the distribution follows a Pareto format. Quantile estimates, such as those shown in figure 6, use a smoothing procedure to accommodate "clumps" in the reported distribution of earnings. The construction of this wage series is discussed in greater detail in Webster (1999).

Table A1, Oaxaca decomposition: The wage data for this table also come from the CPS ORG, as described above. We use the following equation to decompose the changes in characteristics (Xs) and returns (Bs):

$$\Delta p = \sum_{i=1}^{k} \overline{\mathrm{B}_i}(X_{t_1} - X_{t_0}) + \sum_{i=1}^{k} \overline{X_i}(\mathrm{B}_{t_1} - \mathrm{B}_{t_0}) + (\alpha_{t_1} - \alpha_{t_0})$$

where Δp is the change in the probability of low-wage work (in our case, the change in the likelihood of earning less than $7.90 in 1997 dollars), B bar is the average of the returns between the two time periods, *X* bar the average of characteristics between the two time periods, *a* the intercept term, and *I* indexes the independent variables, *1* through *k*. Variables in the regression include education, potential experience (age-education-6), industry, occupation, race, region, and marital status. The regressions use the CPS ORG population weights, and separate equations were estimated for men and women.

Thus, the first term represents that part of the change attributable to changing characteristics, the second term represents that part of the change attributable to shifts in returns, and the third term captures the change in the intercept.[27]

Table A1
Decomposition of Changes in the Probability of Low-Wage Work

Men	**1979–89**		**1989–97**		**1979–97**	
Total Change	0.078		0.013		0.091	
	Characteristics	Returns	Characteristics	Returns	Characteristics	Returns
Education	–0.010	–0.008	–0.007	0.014	–0.017	0.006
Industry	0.008	–0.043	0.004	0.027	0.011	–0.014
Occupation	0.007	0.021	0.000	–0.019	0.007	0.001
Experience	–0.009	–0.059	–0.012	–0.021	–0.020	–0.080
Race	0.003	–0.017	0.004	–0.016	0.006	–0.033
Marital Region/ Marital Status	0.007	–0.022	0.001	0.020	0.008	–0.002
Intercept	na	0.200	na	0.018	na	0.218
Sum	0.007	0.071	–0.010	0.022	–0.005	0.095
Women	**1979–89**		**1989–97**		**1979–97**	
Total Change	–0.002		–0.017		–0.018	
Education	–0.019	–0.015	–0.016	0.011	–0.033	–0.006
Industry	0.003	0.001	0.003	0.027	0.006	0.027
Occupation	–0.013	0.044	–0.008	0.005	–0.022	0.050
Experience	–0.012	–0.016	–0.012	–0.022	–0.024	–0.038
Race	0.001	–0.024	0.002	–0.002	0.003	–0.025
Marital Region/ Marital Status	0.001	–0.046	0.001	0.011	0.002	–0.035
Intercept	na	0.092	na	–0.015	na	0.076
Sum	–0.038	0.036	–0.031	0.014	–0.068	0.049

Source: CPS ORG data. Dependent variable is the probability of low-wage work, measured using wage categories from table 2 (multiple of poverty line, or less than $7.90 in 1997). Oaxaca decomposition uses linear probability model, with CPS population weights. See data appendix for details.

Endnotes

1. Workfare (publicly subsidized work) is supposed to be a stopgap for those unable to find private-sector work in the short term.
2. See Harrison and Sum (1979), Gordon (1972), Piore (1975), and Howell (1997).
3. This concept was introduced by former Labor Secretary John Dunlop (1979).
4. See Spriggs and Klein (1994) and Spriggs and Schmitt (1996).
5. All the poverty-level wage calculations in this paper refer to the poverty-level wage for a family of four. Using the poverty-level wage for a family of three does not change the qualitative or quantitative results.
6. The Organization for Economic Cooperation and Development (OECD) (1997) defined the low-wage cutoff as two-thirds of the median wage. Interestingly, the OECD finds no evidence of higher mobility among low earners in the less-regulated United Kingdom and United States compared to other countries in its study.
7. See Topel (1993).
8. See Bernstein (1997).
9. This trend has since slowed.
10. See Mishel et al. (1999a), table 3.21.
11. This family would have been ineligible for health coverage under Medicaid in 1997. Subsequent program changes have now made the children in such a family eligible for Medicaid coverage, raising the family's living standard a bit higher (Currie and Yelowitz 1998).
12. This comparison involves crossing the coding change in the Current Population Survey (CPS) education variable. The education category that changed the most was "some college." Those who had completed 13 to 15 years of schooling in pre-1992 files were labeled "some college." The new coding differentiates between those with associate degrees and those with some college. Since these are percentages that together cover everyone, the coding change only introduces error to the extent that those with high school or less would have been classified differently under the two coding schemes. Evidence from the 1990 CPS, which includes both coding formats, suggests a coding-induced shift from high school to some college—making the changes shown in table 3 overestimates of the educational upgrading that took place over the period.
13. See appendix at the end of this chapter.
14. The economic returns and the workforce characteristics may in fact affect each other to some degree, but not enough to change the nature of the broad trends discussed in this paper.

15. Evidence for this is seen in the increase in the intercept term shown in table A1.

16. The combination of the findings for women is particularly worth noting. The net effect of declining economic returns to work and the negative structural factors would have led to a 4.9 percent increase in the share of the female workforce in the low-wage sector between 1979 and 1997. But their actual share in the low-wage sector fell over the period, by 1.8 percent. Thus, improvements made by women in education, occupation, and experience more than reversed the impact of the negative factors.

17. A recent example of the demand-shift argument was made by Johnson (1997). Institutional arguments can be found in Fortin and Lemieux (1997), Howell (1997), and Mishel et al. (1999a).

18. See Holzer (1996).

19. For example, the real wages of entry-level (one to five years' experience), college-educated workers fell by about 7 percent for both men and women during the 1989–97 period (Mishel et al. 1999a).

20. Of the 10 occupations projected to add the most jobs over the 1996–2006 period, 7 call for high school or less in terms of skill demands, and 5 are in the lowest pay category (Silvestri 1997, table 4).

21. See Mishel et al. (1999a).

22. See Blank and Blinder (1986) and Blank and Card (1993).

23. See Fortin and Lemieux (1997).

24. See Bernstein and Schmitt (1998). A policy related to the minimum wage is the living wage movement, which has been successfully passed in ordinances in numerous cities enforcing pay levels above the minimum for workers in firms with city contracts (Bernstein 1998).

25. As with immigration, various analysts have argued that the welfare-to-work component of welfare reform has the potential to further increase the supply of low-wage workers.

26. See Katz (1998).

27. Danziger and Acs (1997) do a similar decomposition.

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Chapter 2

Low-Wage Labor Markets: Changes over the Business Cycle and Differences across Region and Location

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and
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Introduction

The health of the entry-level or low-wage labor market is central to the success of efforts to move welfare recipients into employment. With the unemployment rate near its lowest level in 30 years, the labor market currently appears to be relatively favorable to welfare-to-work efforts. However, there are reasonable concerns that when the next recession hits, many low-skilled jobs will vanish and the gains achieved by former welfare recipients who have made the transition to work will disappear.

This paper addresses four questions that concern low-wage labor markets and the prospects of former welfare recipients. First, how has the labor market for low-skilled workers fluctuated over the last business cycle? The unemployment, employment, and labor force participation of workers with different levels of education during the last decade are addressed in the first section.

Second, what happened to the number of low-wage and near–low-wage jobs over the last business cycle, and what is the occupational mix of low-wage and near–low-wage jobs? These questions are addressed in the second section.

Third, are there differences across regions of the U.S. in the health of the labor market and, in particular, in employment prospects of former welfare recipients? These questions are addressed in the third section.

Fourth, are there differences among central cities, suburbs, and nonurban areas in the health of the labor market and the employment prospects of former welfare recipients? These questions are addressed in the fourth section.

Although much has been written on the low-wage labor market in relation to minimum wage laws, there is a notable dearth of literature addressing the health of the low-wage labor market over the business cycle, and especially the question of how former welfare recipients might fare. The likely reason is that, until relatively recently, little serious consideration was given to the idea of moving welfare recipients into the labor market. The general view was that most welfare recipients are relatively low-skilled women with young children whose time is better spent in child care activities than in the formal labor market. Of course, this may be a correct view, but policy has moved in another direction.

The paper relies on tabulations of the Current Population Survey (CPS) from 1988, 1992, and 1997 (see the appendix for a discussion of our use of the data). These three years were chosen to reflect the state of the labor market near the peak of the last economic expansion (1988), at the trough of the last recession (1992), and at a point well into the current economic expansion (1997). In other words, these three years, at roughly four-year intervals, correspond to good times, recession, and (again) good times.

The Economy and the Prospects of Low-Skilled Workers

How did low-skilled workers fare over the last business cycle? What have been the general trends in the low-skilled labor market since the late 1980s? These questions are addressed by examining the unemployment rates for workers with different levels of education, focusing especially on workers with high school or less.

Less Education, More Unemployment

In good times and recession alike, workers with less education fare worse than those with more education. Moreover, things appear to have gotten worse for less-skilled workers (that is, workers with high school or less) during the 1990s. Figure 1 shows the unemployment rates for women (figure 1a) and men (figure 1b) by educational attainment in 1988, 1992, and 1997. Five groups of workers are broken out as follows:

- Those who have not completed high school ("less than high school");

Figure 1a
Unemployment Rate for Women by Education, 1988, 1992, and 1997

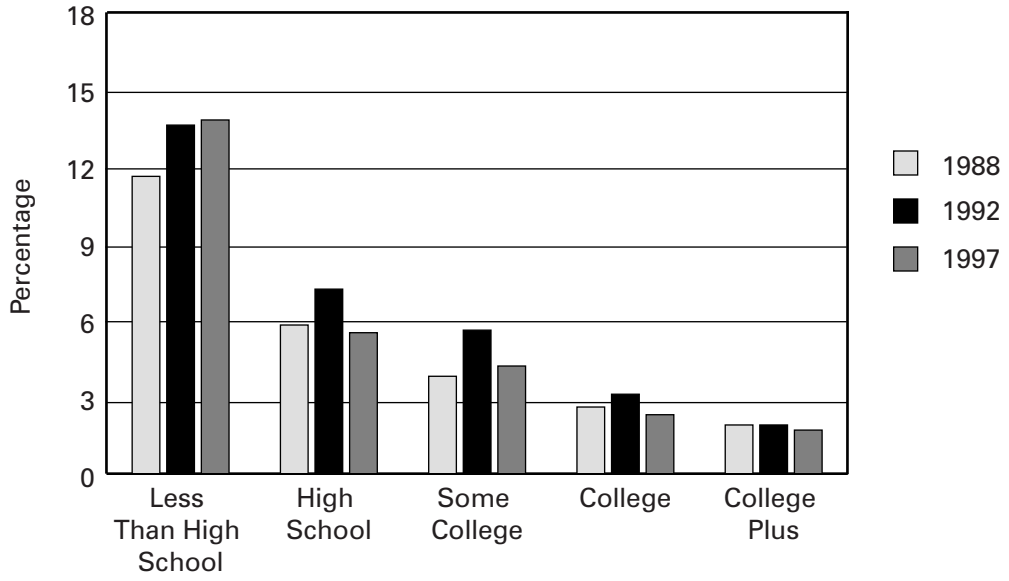
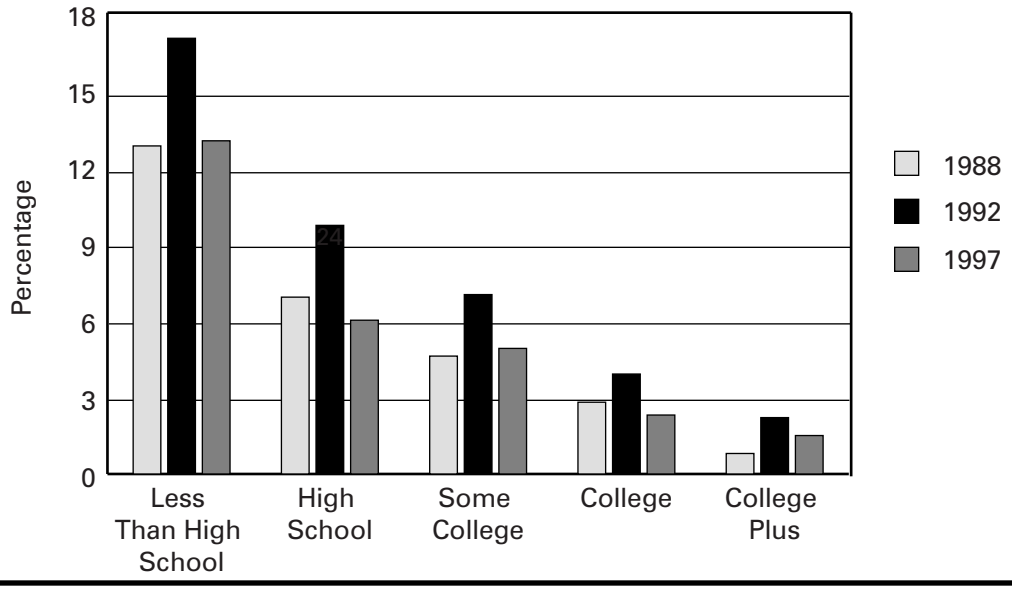


Figure 1b
Unemployment Rate for Men by Education, 1988, 1992, and 1997



- Those with a high school diploma but no further formal schooling ("high school");
- Those with some schooling beyond high school—including vocational training and associate degrees—but less than a four-year college degree ("some college");
- Those with a four-year college degree ("college"); and
- Those with education beyond college ("college plus").

Figure 1 illustrates three points. First, in recession and economic expansion alike, the unemployment rate is higher for workers with lower educational attainment. In 1997, women and men with less than high school faced an unemployment rate of 13 to 14 percent. In contrast, the unemployment rate was 5.5 to 6 percent for high school graduates, 4 to 5 percent for men and women with some college, about 2.2 percent for college graduates, and less than 2 percent for those with more than four years of college. Even in good times, then, the labor market prospects of workers who have not completed high school are relatively bleak.

Second, for all groups except the most highly educated women, the unemployment rate rose sharply in the last recession (as shown by the increases between 1988 and 1992). Third, although by 1997 the unemployment rate had returned to its pre-recession level (or nearly so) for other groups of workers, the unemployment rate for women with less than high school actually increased in the postrecession period. That is, the unemployment rate for women with less than a high school education remained high (and even increased somewhat) as the economic upswing of the 1990s progressed. This is the main finding in figure 1 that needs to be explained, since it raises an important concern for efforts to move former welfare recipients into the labor force.

Explanations

Why did the unemployment rate for women with less than high school not fall during the current recovery? Three factors appear to be at work.

Declining Demand for Low-Skilled Labor. First, it is widely believed that the demand for low-skilled workers in the United States has been falling over time, mainly as a result of skill-biased technological change (see, for example, Mark 1987; Bound and Johnson 1992, 1995). By itself, the decrease in demand for low-skilled women would reduce employment and put downward pressure on the wages. In the presence of an effective minimum wage, such a drop in demand would lead to increased unemployment.

Rising Labor Force Participation. An important trend on the supply side of the labor market for low-skilled women is apparent in figure 2: The number of women with less than high school who are seeking jobs has been on the rise. In particular, the labor force participation rate for women with less than high school increased between 1992 and 1997 from about 31.5 percent to 34 percent. [The labor force participation rate is defined as the sum of employment and unemployment (the labor force) as a percentage of all noninstitutionalized workers ages 16 and over (the population that is eligible to participate in the labor force).]

Figure 2a
Labor Force Participation Rate for Women by Education, 1988, 1992, and 1997

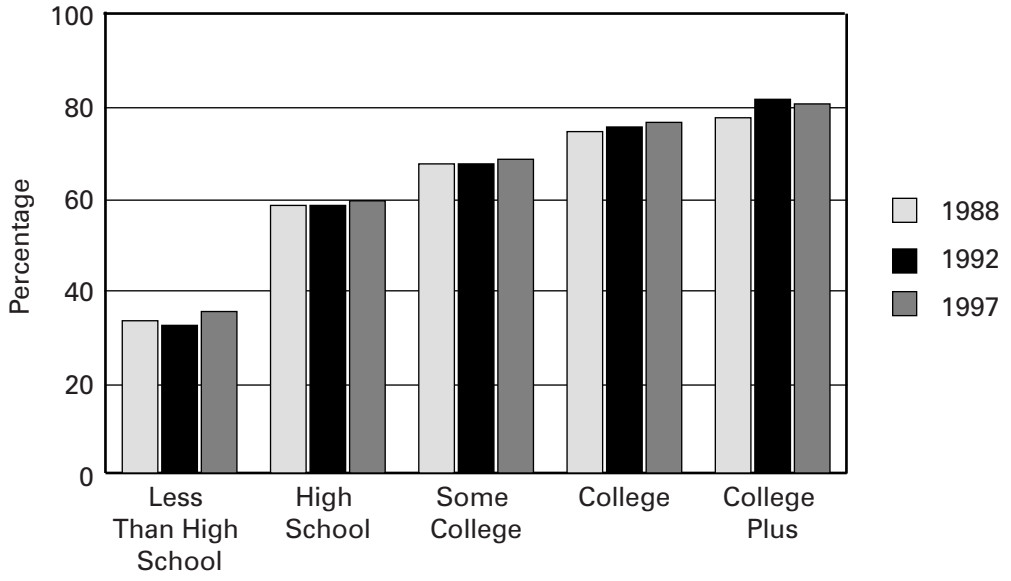
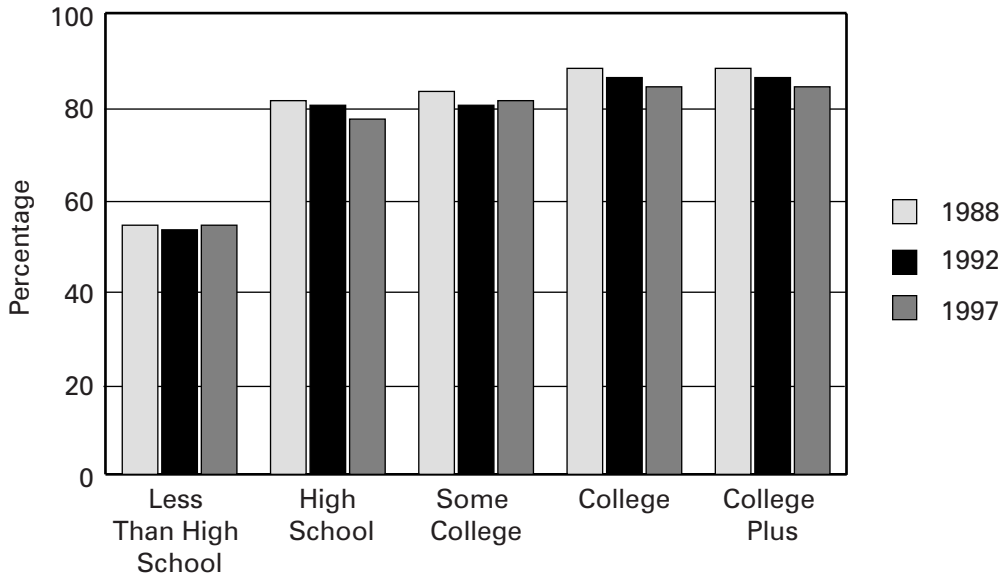


Figure 2b
Labor Force Participation Rate for Men by Education, 1988, 1992, and 1997



The increase in labor force participation of women with less than high school may have occurred in part because of anticipated changes in Aid to Families with Dependent Children (AFDC). Anecdotal reports from welfare caseworkers suggest that many welfare recipients reentered the labor force even before Temporary Assistance for Needy Families (TANF) became law.[1] In any case, increased labor force participation is exactly what can be expected as a result of TANF.[2] If what occurred between 1992 and 1997 is a precursor to what can be expected as TANF proceeds, then we can expect further increases in the labor force participation rate for women with less than high school. If such a trend does develop, then the supply of low-skilled workers competing for jobs would increase, and the employment prospects for low-skilled former welfare recipients would worsen at least in the short run.

Fewer Women with High School or Less. A third trend is acting to blunt the two factors just discussed and to improve the labor market for low-skilled women. Specifically, the population of women with high school only or less than high school has fallen sharply since 1988. This can be seen in figure 3, which shows the population of women and men in each of the five educational categories examined for 1988, 1992, and 1997. (Population is defined as the sum of employed workers, unemployed workers, and noninstitutionalized individuals over age 16.) Whereas the number of women with some college and college degrees has risen rapidly since 1988, the number of women with less than high school has fallen by nearly 13 percent, and the number of women with only high school has fallen by 10 percent. This shift in the composition of the population from less to more education and skill should reduce the supply of low-skilled labor and put upward pressure on the wages of low-skilled women. In other words, the reduced supply of women with less than high school and high school only should, by itself, improve the labor market situation of the women who remain in the low-skilled labor market.

Clearly, though, the first two factors—declining demand for low-skilled labor and increasing labor force participation rates of low-skilled women—have dominated the labor market for low-skilled women. As a result, the unemployment rate of low-skilled women has been on the rise.

All three factors apply to men as well, but men's unemployment rates fell after the recession. The difference probably reflects the fact that women's opportunities are more restricted than men's and that opportunities for women are segregated from those for men.

Long-Term Trends versus the Business Cycle

The failure of the unemployment rate for women with less than high school to fall during the current recovery suggests that long-term or secular factors (such as technological change and trends in labor force participation) are more important than the business cycle in determining the employment status of low-skilled women. This suggestion is supported by what happened to the unemployment rate for low-skilled women during the recession of the early 1990s. As with most groups of workers, the unemployment rates for women with less than high school and high school only increased during the last recession. But in percentage terms, the increase in the unemployment rate for women who had a high school education or less was actually *less severe* than for women with more than high school (except for those with school-

Figure 3a
Population of Women by Education, 1988, 1992, and 1997

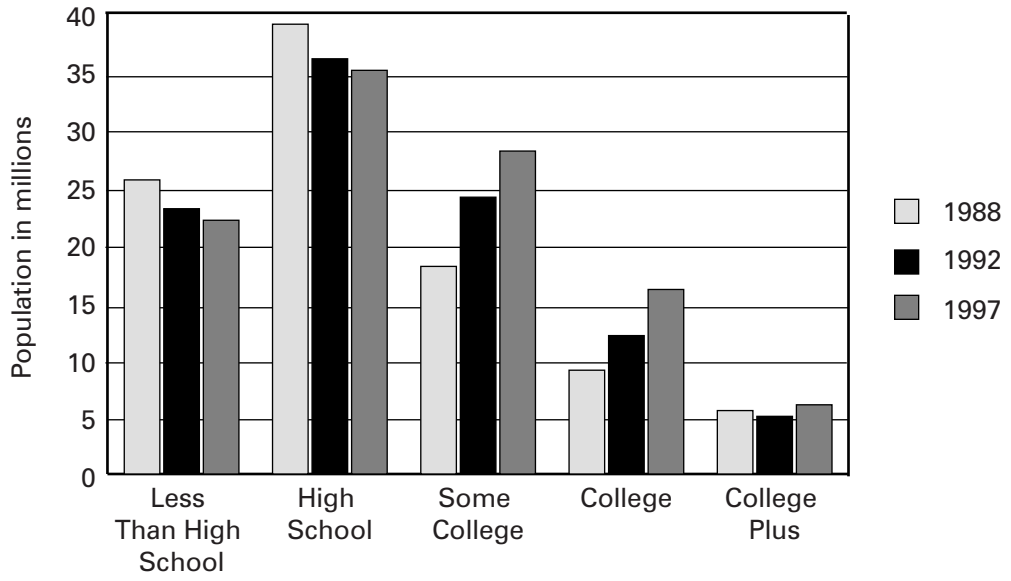
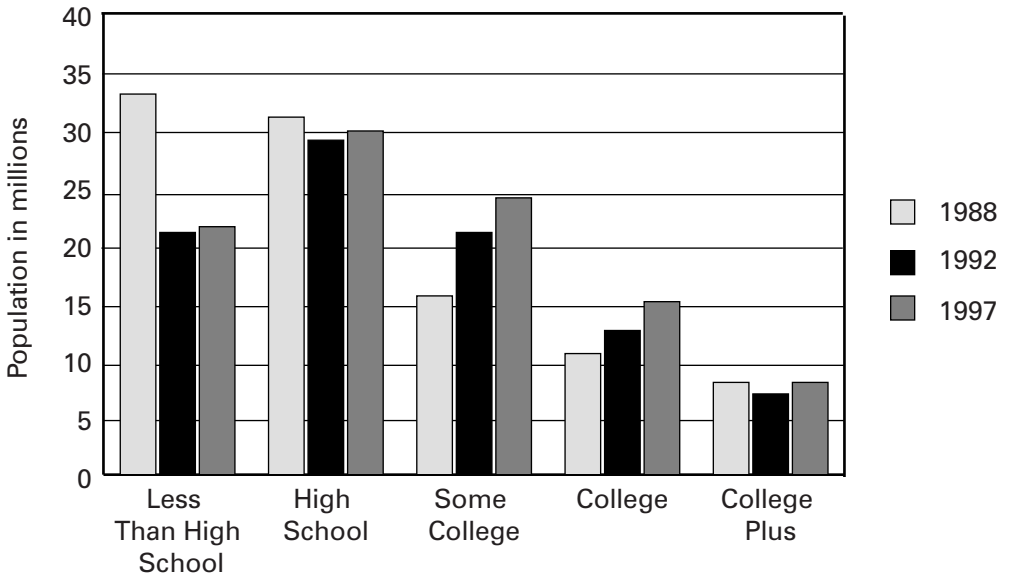


Figure 3b
Population of Men by Education, 1988, 1992, and 1997



ing beyond a college degree).[3] This does not imply that the last recession was in any sense kind to workers with high school or less, but it does suggest that, in relative terms, the recession of the early 1990s was not as hard on workers with less education (and was harder on workers with greater education) than earlier recessions had been. A likely explanation is that the secularly falling population of women with high school or less blunted what would otherwise have been a more substantial increase in the unemployment of low-skilled women. Whether this scenario—in which the employment of women with high school or less turns out to be less volatile than the employment of women with more education—would repeat itself in a future recession is an open question.

Summary

The labor market prospects for former welfare recipients are far less promising than for more-skilled groups of workers. First, in both good times and bad, workers with high school or less face substantially worse labor market prospects than workers with more schooling. Second, there is a consensus among labor economists that the demand for low-skilled labor is in long-run decline, mainly as a result of technological change. This falling demand can be expected to increase the unemployment of low-skilled labor relative to other workers. Third, it appears that the labor force participation rate for women with less than high school has been rising and can be expected to continue rising as TANF proceeds. This rising labor force participation rate implies a growing number of low-skilled job seekers. Both the second and third factors push in the direction of a higher unemployment rate for low-skilled workers. The one bright spot for former welfare recipients is that the population of women with high school or less than high school is falling, as the composition of the labor force shifts toward more educated workers. As a result, a smaller population of workers will be available to compete for the low-skilled jobs that workers with only high school or less typically occupy. Clearly, this does not eliminate the need to anticipate the next recession and to contemplate measures to create jobs for these workers, but it may make the problem less severe than it might otherwise be.

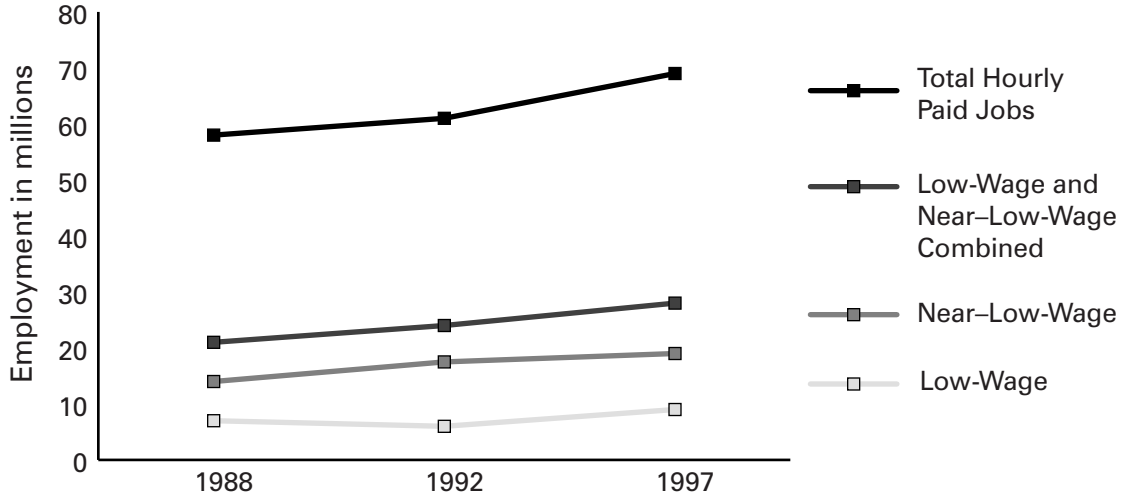
Low-Wage Jobs

In this section, low-wage jobs themselves are examined. How many low-wage and near–low-wage jobs are there? What are the low-wage occupations? What happened to the number of these jobs over the last business cycle?

In order to address these questions, it is useful to focus on workers in hourly employment. This is reasonable because most welfare recipients who enter the labor market will be seeking a job that pays an hourly wage. Also, the Current Population Survey provides data on the hourly earnings of one-quarter of the workers in the CPS sample (see the data appendix for details).

Low-wage jobs are defined by using the September 1997 minimum wage, which was $5.15 an hour. That wage is then adjusted by the Consumer Price Index (CPI-U) to obtain a cutoff point of $4.48 for 1992 (slightly above the 1992 minimum wage of $4.25) and $3.75 for 1988 (when the minimum wage was $3.35 an hour).

Figure 4
Hourly Paid Jobs, Total and by Wage Level



To define *near*–low-wage jobs, a somewhat arbitrary cutoff of $7.50 an hour for 1997 is used. Thus, near–low-wage jobs for 1997 are defined as jobs that paid between $5.15 and $7.50 an hour. The $7.50-an-hour cutoff is then adjusted by the CPI-U to obtain a near–low-wage range of $4.48 to $6.53 an hour for 1992 and $3.75 to $5.46 an hour for 1988.

How Many Low-Wage Jobs Are There?

Figure 4 gives a general picture of hourly paid jobs over the last recession and recovery. The total number of hourly jobs shows a typical cyclical pattern: there was slow growth from 58.1 million in 1988 to 60.6 million in 1992 (or about 4 percent), then rapid growth during the recovery to 69.1 million in 1997 (about 14 percent).

In contrast, the growth of hourly jobs at or near the minimum wage was more steady: low-wage and near–low-wage jobs combined grew from 21 million in 1988 to 24 million in 1992 (or 14 percent), and then to 28.5 million in 1997 (or 18.6 percent).

However, the patterns for low-wage and near–low-wage jobs differ significantly from each other. Low-wage jobs took a large hit during the last recession, falling from 7.1 million in 1988 to 6.2 million in 1992. They then recovered to 8.9 million in 1997. Near–low-wage jobs, however, showed signs of being countercyclical, growing rapidly from 13.9 million in 1988 to 17.8 million in 1992 (or 28 percent), then growing more slowly during the recovery to 19.5 million in 1997 (or 9.6 percent).

The cyclical pattern shown by low-wage jobs is expected. Both human capital theory and empirical evidence suggest that low-wage, low-skilled workers are more likely to be laid off in a recession than are high-wage, skilled workers. In contrast, it appears that near–low-wage jobs

are sufficiently skilled (and filled by workers who are sufficiently skilled) that employers maintain the jobs through a recession, rather than eliminating the jobs and laying off the workers.

Mainly, the data in figure 4 make it clear that the number of low-wage jobs (that is, jobs earning roughly minimum wage) fell significantly during the last recession. Such a drop can be expected to repeat itself in the next recession.

Occupational Mix of Low-Wage Jobs

Figures 5a and 5b show a breakdown of low-wage and near–low-wage jobs by occupation. Three conclusions are clear from figure 5. First, low-wage and near–low-wage jobs combined are concentrated in service, sales, and clerical occupations, followed by labor (a catchall category for low-skilled labor) and operative jobs (that is, jobs that involve tending or operating a machine). The largest of these—service and sales occupations—have been rapidly growing segments of the labor market.

Second, low-wage jobs in occupations where they are concentrated tend to show the same pattern through the last business cycle: a loss of jobs between 1988 and 1992 followed by

Figure 5a
Low-Wage Hourly Paid Jobs by Occupation

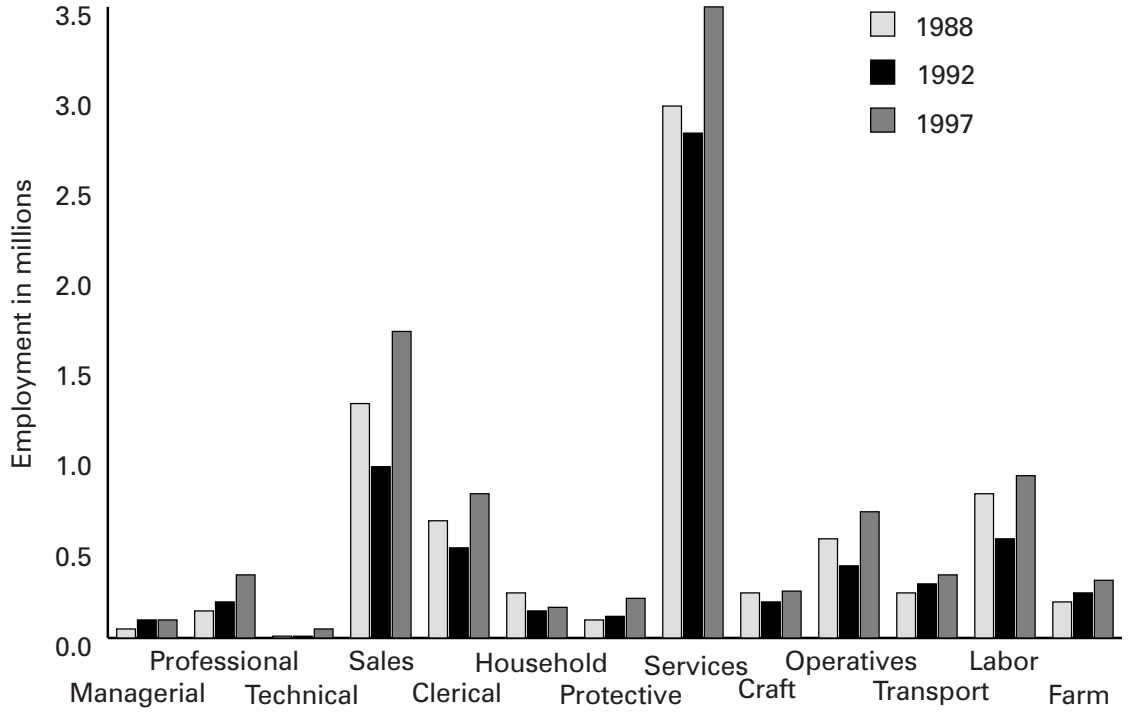
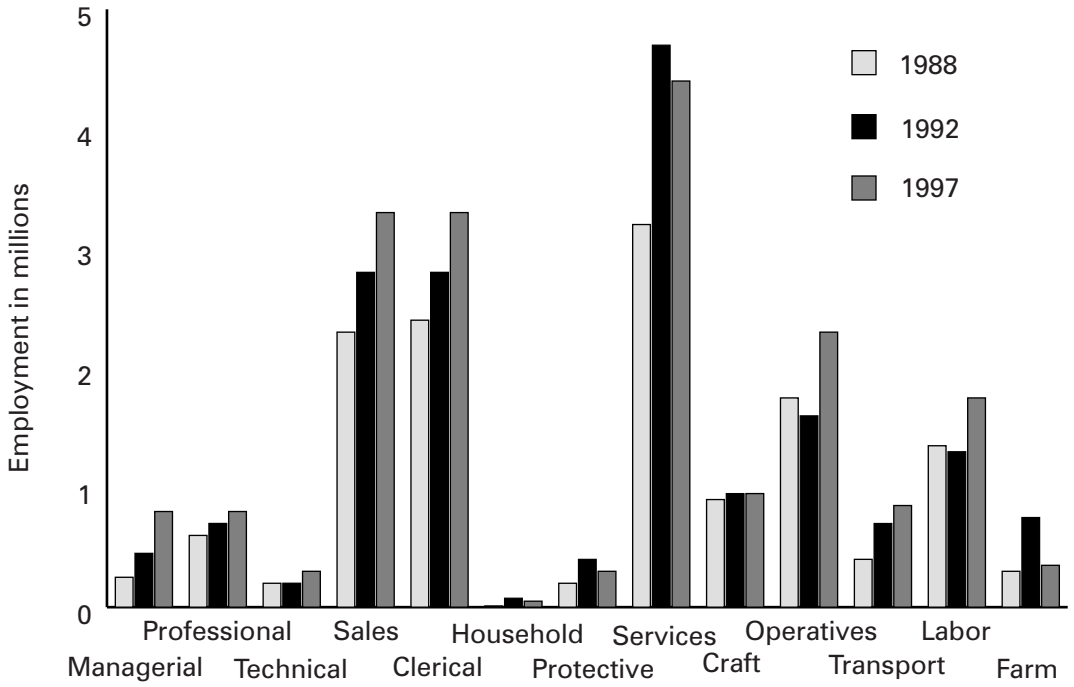


Figure 5b
Near–Low-Wage Hourly Paid Jobs by Occupation



recovery between 1992 and 1997. This is the same cyclical pattern that can be seen for low-wage jobs overall in figure 4.

Third, *near*–low-wage jobs in occupations where they are concentrated show a somewhat different pattern: an increase in employment between 1988 and 1992 (except among operatives and laborers) followed by further increases (or, in services, a modest drop) between 1992 and 1997. This reflects the somewhat countercyclical pattern that can be seen for near–low-wage jobs overall in figure 4. It follows that most of the occupational segments of the near–low-wage labor markets follow aggregate movements in near–low-wage jobs.

Regional Differences in Jobs and Unemployment Rates

There has been concern that former welfare recipients will have greater difficulty finding jobs in some regions than in others. In light of this concern, it is important to ask how low-wage labor markets vary by region. In this section, regional differences over the past decade are examined using three labor market indicators:

- The growth of paid jobs;
- The mix of low-wage, near–low-wage, and higher-wage jobs; and

- The unemployment rate facing women with high school only or less than high school.

Figure 6 displays data on the first two of these indicators. The job prospects of former welfare recipients depend both on the overall growth of jobs in a regional economy and on the mix of low-wage, near–low-wage, and higher-wage jobs in a region. Where overall job growth is good, and where the mix of jobs is shifting toward higher-wage jobs, labor markets tend to be tighter. In such labor markets, former welfare recipients are likely to face good job prospects and opportunities to upgrade their skills and to qualify for jobs that pay well above the minimum wage.

Figure 7 displays data on the third indicator—the unemployment rate for women with high school only or less than high school in each major region. These unemployment rates should be related inversely to the employment prospects of former welfare recipients in each region.

The data in figures 6 and 7 are used to examine the job prospects of former welfare recipients in each of the four major regions of the United States.

Slack Labor Markets in the Northeast

In the Northeast, the total number of hourly jobs grew only modestly between 1988 and 1997—by less than 9 percent (see figure 6), compared with nearly 19 percent nationally. Also,

Figure 6
Hourly Paid Jobs by Wage Level and Region, 1988, 1992, and 1997

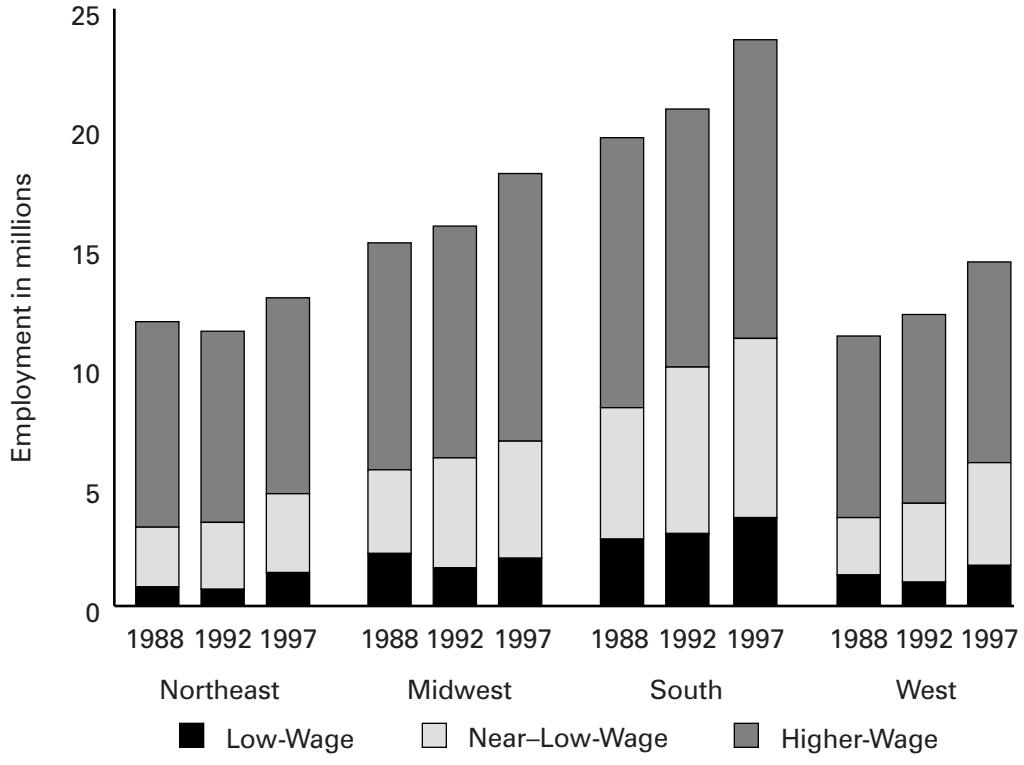
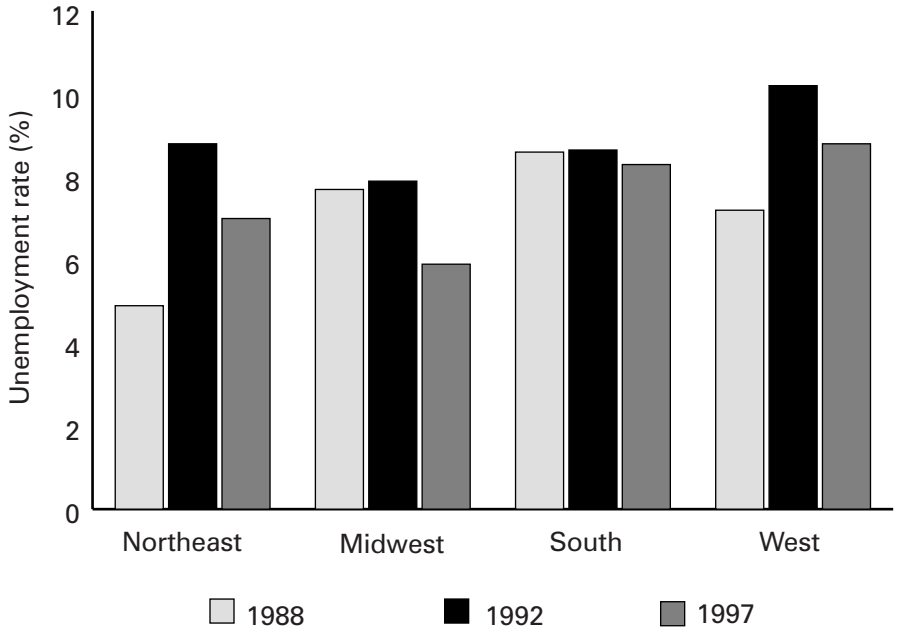


Figure 7
Unemployment Rate for Women with High School or Less by Region, 1988, 1992, and 1997



the mix of hourly jobs shifted toward low-wage and near–low-wage jobs—low-wage and near–low-wage jobs accounted for about 28 percent of all hourly jobs in 1988, but they were 36 percent of all hourly jobs by 1997. The growth of low-wage jobs in the Northeast was especially strong following the recession of the early 1990s. Relatively slow job growth and the shift toward lower-paying jobs suggest that labor markets in the Northeast are relatively slack.

A look at the unemployment rate for women with high school or less tends to confirm the view that the labor market is slack in the Northeast. Figure 7 shows that the unemployment rate for women with high school or less rose dramatically in the Northeast during the last recession (that is, between 1988 and 1992). Moreover, the Northeast has struggled to recover since 1992: The 1997 unemployment rate for women with high school or less was 7 percent, well above its pre-recession (1988) level.

Tight Labor Markets in the Midwest

In the Midwest, the total number of hourly jobs grew by 18 percent between 1988 and 1997, roughly the national average (see figure 6). In the Midwest, low-wage and near–low-wage jobs together accounted for 37 percent of all hourly jobs in both 1988 and 1997. However, the mix of low-wage and near–low-wage jobs shifted: The number of low-wage jobs fell while the number of near–low-wage jobs grew rapidly (by over 36 percent). Good job

growth and the shift toward higher-paying jobs suggest that labor markets in the Midwest are relatively tight.

As can be seen in figure 7, the Midwest experienced only a mild recession in the early 1990s: The unemployment rate for women with high school or less barely budged between 1988 and 1992. Moreover, the unemployment rate for women with high school or less fell significantly between 1992 and 1997 and stood at just under 6 percent in 1997. The evidence is strong that labor markets in the Midwest are tight and favorable for former welfare recipients to both enter the job market and move up to better jobs.

A Shift toward Low-Wage Jobs in the South

In the South, the total number of hourly jobs grew at just below the national average between 1988 and 1997—by 16 percent (see figure 6). However, in the South, the mix of hourly jobs shifted toward low-wage and near–low-wage jobs. While low-wage and near–low-wage jobs accounted for 42 percent of all hourly jobs in 1988, they were 49 percent of all hourly jobs by 1997. (Low-wage and near–low-wage jobs grew at about the same rate.) Overall job growth in the South has been good, but the shift toward low-paying jobs suggests that labor markets in the South are weaker than those in the Midwest, with fewer options for moving into better jobs.

Like the Midwest, the South experienced only a mild recession in the early 1990s, and the unemployment rate for women with high school or less barely rose between 1988 and 1992 (see figure 7). In the South, though, the unemployment rate for women with high school or less fell very little following the recession and stood at about 8.4 percent in 1997.

Overall, the data in figures 6 and 7 suggest that, although jobs in the South have grown at roughly the national average rate, the pace of job growth in the South has not been enough to keep up with the number of new job seekers. In other words, labor markets in the South appear to be rather slack.

High Unemployment in the West

Of the four major regions, the West had the strongest growth of hourly jobs overall between 1988 and 1997—the total number of hourly jobs grew by over 26 percent (see figure 6). However, a disproportionate amount of this growth was concentrated in low-wage and near–low-wage jobs. Whereas low-wage and near–low-wage jobs accounted for 33 percent of all hourly jobs in 1988, they were 41 percent of all hourly jobs by 1997. That is, job growth in the West has been good, but there has been a strong shift toward low-paying jobs, suggesting slack in the labor market.

Like the Northeast, the West experienced a severe recession in the early 1990s. This is reflected in the dramatic rise in the unemployment rate for women with high school or less between 1998 and 1992 (see figure 7). Also like the Northeast, the West has struggled to recover since 1992, and the 1997 unemployment rate for women with high school or less was nearly 9 percent—the highest of any region and well above the pre-recession level.

Summary

Of the four major regions of the United States, only the Midwest has a labor market that could be characterized as highly favorable to former welfare recipients. In the Midwest, hourly job growth has been rapid, the mix of jobs has shifted toward higher-paying jobs (suggesting growing demand for labor), and the unemployment rate has dropped to a level well below that preceding the recession of the early 1990s.

In the other three major regions, while former welfare recipients may find jobs, many may face difficulties in remaining employed and moving up in the job market. In the Northeast, job growth has been slow and skewed toward low-wage jobs, and the 1997 unemployment rate for women with high school or less was still above its 1988 level. In the South, job growth has also been skewed toward low-wage jobs, and there, too, the unemployment rate for women with high school or less has been persistently high—almost 8.5 percent in 1997. In the West, job growth has been concentrated in low-wage jobs, and the unemployment rate for women with high school or less, although it has fallen from over 10 percent in 1992, was still nearly 9 percent in 1997.

Differences in Jobs and Unemployment Rates by Urban Location

There has also been concern that, as a result of locational mismatches, former welfare recipients in central cities will have greater difficulty in making the transition to work than will former welfare recipients in suburbs and nonurban areas. A complete examination of this issue would require a careful look at the location of current welfare recipients and the corresponding location of low-wage and near–low-wage jobs. Although such an examination is beyond the scope of this paper, in this section the variation in low-wage labor markets among central cities, suburbs, and nonurban areas is examined using the same three labor market indicators examined in section 3 above: (1) the growth of hourly paid jobs, (2) the mix of jobs, and (3) the unemployment rate facing women with high school or less.

Figure 8 displays data on the first two of these indicators. As noted at the beginning of the third section, the job prospects for former welfare recipients depend both on the overall growth of jobs in an area and on the mix of low-wage, near–low-wage, and higher-wage jobs in an area. Figure 9 shows data on the third indicator, the unemployment rate for women with high school or less in each urban location. The data in figures 8 and 9 are used to examine the job prospects for welfare recipients in central cities, urban areas outside central cities, and nonurban areas.

Slack in Central Cities

Figure 8 shows that, between 1988 and 1997, hourly job growth in central cities was about 13 percent—below the growth of jobs in either the suburbs (urban areas that are not within a

central city) or nonurban areas. Also, although the mix of hourly jobs shifted toward low-wage and near–low-wage jobs in all three locations, the shift was most pronounced in central cities, where low-wage and near–low-wage jobs accounted for 34.4 percent of all hourly jobs in 1988 and grew to 42.6 percent of all hourly jobs by 1997. The relatively slow overall job growth and the strong shift toward low-wage and near–low-wage jobs both suggest that labor markets in central cities are slack. It follows that the job prospects for former welfare recipients are relatively weak in central cities, where welfare recipients are disproportionately located.

A look at the unemployment rate for women with high school or less in central cities tends to confirm that the job prospects for former welfare recipients in central cities are relatively bleak. Figure 9 shows that the unemployment rate for women with high school or less rose more in central cities than elsewhere during the last recession (that is, between 1988 and 1992). Moreover, during the recovery the unemployment rate for women with high school or less has fallen less in the central cities than elsewhere. In short, concerns that former welfare recipients face greater labor market difficulties in central cities than in other locations seem well justified.

Figure 8
Hourly Paid Jobs by Wage Level and Urban Location, 1988, 1992, and 1997

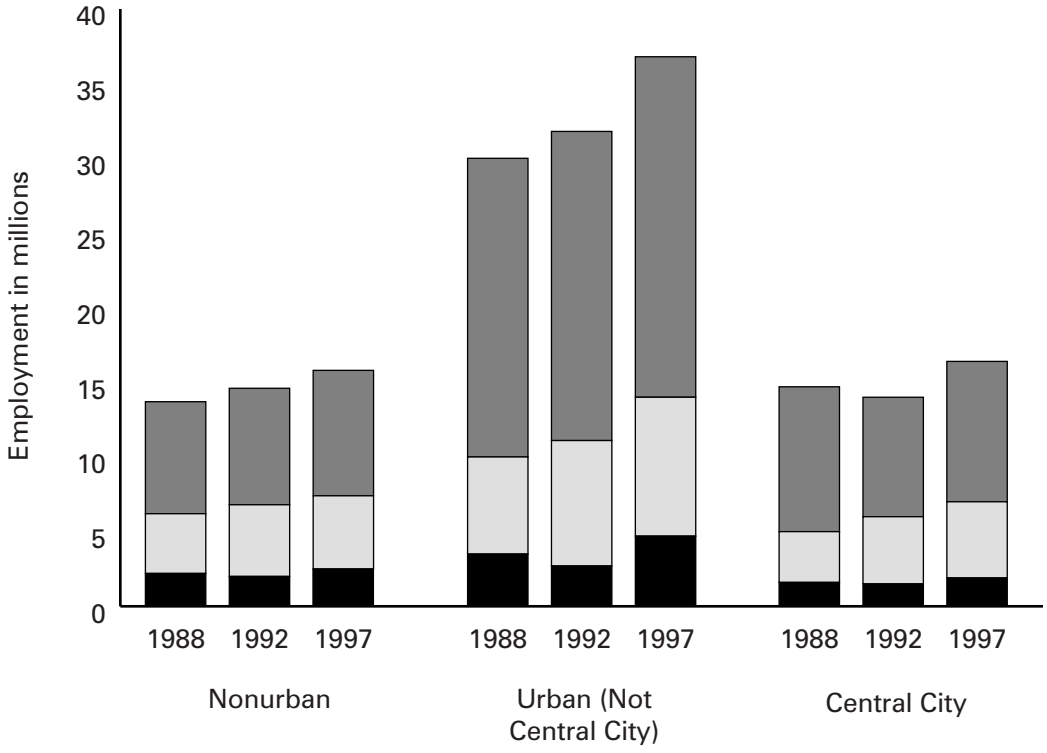
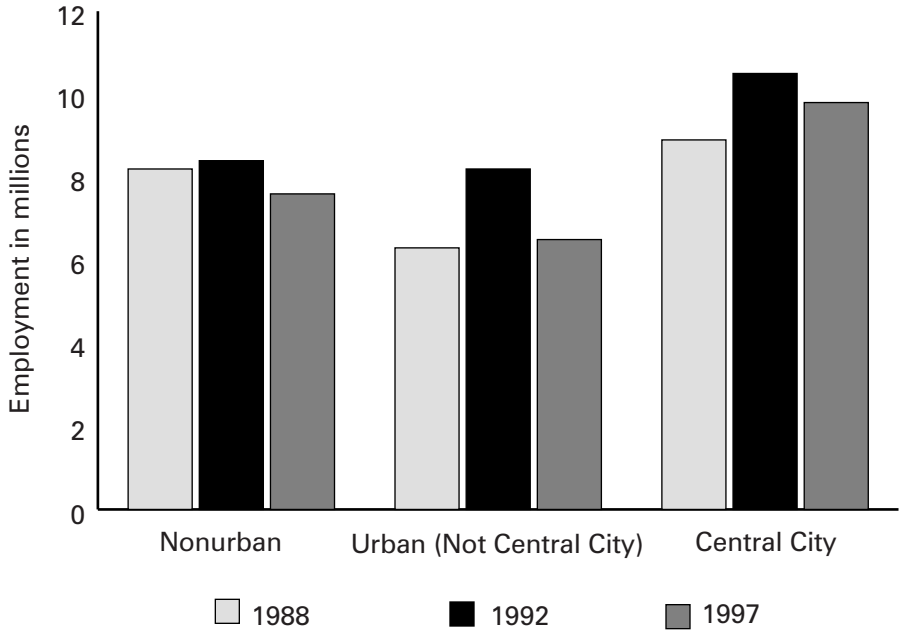


Figure 9
Unemployment Rate for Women with High School or Less by Urban Location, 1988, 1992, and 1997



Tight Suburban Labor Markets

In contrast to central cities, suburbs (urban areas that are not within a central city) had strong hourly job growth between 1988 and 1997. Figure 8 shows that, between 1988 and 1997, hourly job growth was over 23 percent in suburbs. In addition, the mix of hourly jobs shifted less toward low-wage and near–low-wage jobs in suburbs than in central cities: In the suburbs, low-wage and near–low-wage jobs grew from 33 percent to 38 percent of all hourly jobs. Both of these factors suggest that suburban labor markets are relatively tight.

The suburban unemployment rate for women with high school or less also suggests a relatively favorable employment outlook in the suburbs. Although the unemployment rate for women with high school or less rose to slightly over 8 percent in 1992, it had fallen to 6.5 percent by 1997—lower than in either central cities or nonurban areas (see figure 9).

A Mixed Picture in Nonurban Labor Markets

In nonurban areas, hourly job growth between 1988 and 1997 was 15.5 percent—in between the growth of hourly jobs in central cities and suburbs (see figure 8). Also, the shift of hourly jobs toward low-wage and near–low-wage jobs was less pronounced in nonurban areas than elsewhere; in nonurban areas, low-wage and near–low-wage jobs grew from 44 per-

cent to 47 percent of all hourly jobs. These factors suggest a relatively favorable outlook for former welfare recipients in nonurban areas.

Nonetheless, the proportion of low-wage or near–low-wage work remains quite high in nonurban areas. Furthermore, the unemployment rate in nonurban areas for women with high school or less has been persistently higher than in suburbs. That rate was above 8 percent in both 1988 and 1992 and fell by less than one point, to 7.7 percent, by 1997 (see figure 9).

Summary

Overall, the job prospects for former welfare recipients appear to be weakest in central cities and strongest in the suburbs. The outlook in central cities is clouded by slow overall job growth, a strong shift toward low-wage jobs, and a high unemployment rate. These are potentially troubling trends, given the relative concentration of former welfare recipients in central cities.

Main Findings and Policy Implications

The main findings of the first two sections can be summarized in three points:

- First, in good times and bad times alike, women with high school only or less than high school have far higher unemployment rates than women with more education.
- Second, the labor market for low-wage workers has not improved in concert with the improving opportunities for high-skilled workers during the economic recovery of the 1990s. In particular, the unemployment rate of women with less than high school has remained at roughly the level it reached during the last recession.
- Third, the number of low-wage jobs is highly cyclical, falling disproportionately during the recession of the early 1990s.

In short, former welfare recipients face formidable barriers in making the transition to employment. The main reasons for the problems facing low-wage workers are long-term rather than cyclical. There has been a long-term decline in the demand for low-skilled workers, and the labor force participation rate for women with high school or less has been rising secularly.

In the third and fourth sections, the differences in the labor market prospects of former welfare recipients were examined (a) across the four major regions of the United States and (b) among central cities, suburbs, and nonurban areas. Only the Midwest has a labor market that appears to be highly favorable to former welfare recipients. In the Northeast, South, and West, labor market indicators suggest that the job prospects for former welfare recipients are far less favorable. The job prospects of former welfare recipients in central cities are less favorable than in suburbs or nonurban areas. The implication is that efforts to find jobs for former welfare

recipients will face greater difficulties in the central cities of the Northeast and West than in suburbs, nonurban areas, and the Midwest generally.

Overall, the trends discussed in this paper suggest that policymakers will need to anticipate the consequences of the next recession and consider measures to assist former welfare recipients when the inevitable downturn arrives. Efforts to upgrade the skills of former welfare recipients and to place them in jobs using various forms of job search assistance will, of course, be helpful. Ultimately, though, the findings suggest that weak demand for low-skilled labor is the greatest barrier facing former welfare recipients.

Appendix

The Current Population Survey

The figures presented in this paper were generated from tabulations of the March 1988, March 1992, and March 1997 Annual Demographic Files of the Current Population Survey (CPS). The CPS is a monthly survey of a sample of roughly 55,000 households nationwide. It provides information on the employment and unemployment status and other characteristics of the civilian population 16 years of age and older. In March, the CPS collects additional data from respondents in order to provide a more complete picture of each respondent's experience in the labor market (this is the Annual Demographic File). We created figures 1, 2, 3, 7, and 9 by tabulating the full CPS sample of individuals ages 16 and over who were not institutionalized or in the military. Appropriate sample weights were applied to the tabulations to arrive at the population estimates reported.

Each month, data on the hourly earnings of workers are collected from one-quarter of the CPS sample (see, for example, Mellor and Haugen 1986). The relevant questions are: (1) Is ____ paid by the hour on this job? (2) How much does ____ earn per hour?

Figures 4, 5, 6, and 8 were created by tabulating the one-quarter of the CPS sample who were questioned about their hourly earnings in March 1988, March 1992, and March 1997. Again, appropriate sample weights were applied to the tabulations to arrive at the population estimates reported. Because the population estimates underlying figures 4, 5, 6, and 8 are based on smaller samples than those underlying figures 1, 2, 3, 7, and 9, they have larger sampling errors associated with them.

Endnotes

1. Gallagher et al. (1998).

2. Acs et al. (1998).

3. For women with less than high school, the unemployment rate rose by 16 percent; for women who were high school graduates, by 22 percent; for women with some college, by 50 percent; and for women with a college degree, by 25 percent. For men with less than high school, the unemployment rate rose by 34 percent; for men who were high school graduates, by 39 percent; for men with some college, by 56 percent; and for men with a college degree, by 57 percent.

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Section II

Policies Affecting the Low-Wage Labor Market

Chapter 3

Can the Labor Market Absorb Three Million Welfare Recipients?

Gary Burtless*

Introduction

Congress passed the Personal Responsibility and Work Opportunity Reconciliation Act in August 1996. The law changed the nature of a crucial part of the U.S. safety net by ending individual entitlement to benefits. Under new state programs, poor children may no longer be automatically entitled to cash benefits. Although the 1996 law gives states more program flexibility in many areas, it also imposes tough new federal requirements. Each state must now ensure that a rising percentage of its adult aid recipients is engaged in approved work. The head of each family on welfare is required to work within two years after assistance payments begin. Work-hour requirements are stringent, states will face increasingly harsh penalties for failing to meet them, and states will not be permitted to use the federal grant to pay for cash benefits that last longer than 60 months for a particular family. Although exceptions can be made for some hardship cases, Congress's clear intention is to limit benefits for the great majority of families to no more than five years. States may adopt even tighter restrictions on the length of benefit payments. Almost two dozen states have already decided to impose time limits shorter than 60 months.

 I gratefully acknowledge the research assistance of Stacy Sneeringer. The views are those of the author and should not be ascribed to the Brookings Institution or the Urban Institute.

This paper considers an important question about the new limits on benefits: Is the labor market capable of providing enough jobs so that welfare recipients leaving the rolls will be able to find employment? Because the employment rate of public aid recipients has historically been very low, it is reasonable to expect states to significantly boost the percentage of recipients who hold jobs. It is also realistic to expect that the great majority of new jobs will be unsubsidized jobs in the private labor market. The U.S. labor market has enormous capacity to produce private-sector jobs, even for unskilled workers, if an ample supply of workers is available to fill these jobs. Unfortunately, aid recipients have such limited education and skills that few of them qualify for well-paying jobs. Most will have a tough time finding jobs quickly, and many who find jobs will lose them within a few months to a year. The evidence suggests that the overwhelming majority of assistance recipients will earn between $5.25 and $7.50 per hour if they are successful in finding jobs. The trend in wages over the past two decades—though not over the most recent five years—has been adverse for workers with limited skills. If welfare reform forces millions of aid recipients to find jobs, the added supply of unskilled workers could reinforce the long-term trend toward lower wages.

The critical question remains: "Will aid recipients succeed in landing a job, however low the wage?" Evidence through 1998 suggests that for most recipients the answer is "yes." Between 1994 and March 1998 the welfare caseload fell 36 percent, or about 1.8 million cases. Over the same period unpublished Bureau of Labor Statistics tabulations show that the number of separated, divorced, and never-married mothers who hold jobs increased almost 1 million (18 percent). It is likely that many of the mothers who found new jobs would have been collecting public assistance if they had not been working. Whether the U.S. labor market can continue to absorb such large numbers of single mothers remains an open question. The women who have left the rolls so far probably have job qualifications that on average are better than those of parents who continue to collect benefits. Mothers who are still dependent will probably find it harder to land jobs. In addition, the surge in employment has been helped by extraordinarily high employer demand, reflected in the lowest unemployment rate in a quarter century. When employer demand weakens, low-skilled and less experienced workers (such as most single mothers on welfare) will face tougher obstacles in finding and keeping jobs. It is also plain, however, that the surge in single mothers' employment can continue. Many states, including some of the largest ones, have not fully implemented a comprehensive welfare-to-work strategy. When they do, we should expect to see further drops in their rolls and increases in the proportion of single mothers who look for and hold jobs. These jobs will typically be poorly paid, however, and the net family incomes of these women may not improve.

Two Views of the Job Market

Economic theory by itself does not tell us whether enough jobs can be found to employ all welfare recipients expected to leave the rolls. Labor market analysts are divided in their views on this question. Broadly speaking, analysts can be classified in two schools of thought.

One group, consisting mainly of conventional economists, holds that wage and employment levels are largely determined by standard supply and demand factors.[1] The wage and employ-

ment levels for a particular occupation in a local labor market are determined by the abundance of workers in that market who possess the willingness and necessary skills to enter the occupation on the one hand, and the demand of local employers for persons in that occupation on the other. Occupations in which qualified workers are abundant relative to employer demand will offer low wages; occupations in which qualified workers are relatively scarce will see high and possibly increasing wages. Since it takes time, money, and special aptitude for workers to accumulate the skills necessary to enter some occupations, the number of qualified workers in those occupations will be low and the average wage will be high. Occupations requiring less education, specialized skill, or aptitude can be filled by a much larger percentage of the local workforce, and wages in those occupations will be commensurately low.

In this conventional supply-and-demand model, unemployment is either temporary or is caused by some imperfection in local wage determination that interferes with the market-clearing process. Temporary unemployment is inevitable in any market where people are constantly entering or reentering the labor market, where struggling firms must sometimes lay off workers, and where dissatisfied workers quit their jobs in search of better ones. In the supply-and-demand model, however, unemployed workers are assumed to quickly become reemployed at the prevailing wage in their occupation. This will not be true if an imperfection in wage setting causes wages to depart from the "market-clearing equilibrium" level, however. One such imperfection is the legal minimum wage, which may prevent wages from falling far enough so that employers are willing to offer jobs for every worker wishing to find one. Another imperfection may be union-negotiated wage settlements or personnel department rules that might boost wages above the level needed to clear the local labor market. Unemployed workers would be willing to work at the union-negotiated wage, but employers will not find profitable opportunities to offer enough positions so that all the unemployed can hold jobs.

A second group of analysts subscribes to the "queuing model" of unemployment.[2] According to this theory, limits on overall demand or problems inherent in capitalist labor markets are what prevent employers from offering enough jobs for all workers who are willing to hold them. This job shortage produces a queue of job seekers for each job vacancy. Unemployed workers in the queue are identified by a variety of characteristics, such as their job skills, educational attainment, race, ethnicity, and gender, characteristics that employers use to distinguish among more and less desirable job candidates. Workers with the most desirable traits are the first to be hired and are the most likely to hold on to their jobs in a downturn; workers with the least desirable traits are the last to be hired and the first to be let go when employers are forced to scale back their operations.

Predicting the Consequences of Reform

Both models accurately describe some aspects of the U.S. job market, but they provide differing predictions of the consequences of welfare reform. Reform will unquestionably increase the supply of unskilled and semi-skilled job seekers, that is, the number of unskilled workers willing to hold a job at any given wage level.

The conventional supply-and-demand model predicts that the increased willingness of less-skilled workers to hold jobs—the increase in supply—will depress the market-clearing wage.

This, in turn, will persuade employers to offer additional jobs, because unskilled labor can now be hired more cheaply. At the new equilibrium, the number of less-skilled workers holding a job will increase while the wages they earn will shrink. The basic model offers no exact forecast of the number of additional workers who will hold jobs. But it predicts that the level of involuntary unemployment at the new equilibrium will be about the same as it was before welfare reform. One caution is that the legal minimum wage, as noted, might prevent market wages from falling far enough so that all willing workers find jobs. In that case, some workers would be willing to accept jobs at the minimum wage but employers will find they cannot profitably offer any additional jobs at that wage. Consequently, the existence of a minimum wage may mean that welfare reform will push up involuntary unemployment among workers with the least skills.

The queuing model predicts no increase in the availability of jobs but predicts instead a lengthening of the queue of job seekers. Many welfare recipients pushed off the rolls and into the job market will be forced to join the queue of job seekers. Some recipients possess traits that make them attractive to employers, and these recipients will displace other job seekers in the queue who would otherwise have been hired. Most recipients have little education, few skills, and scant work experience, however. A large percentage are members of racial or ethnic groups that still face discrimination in the workplace. Consequently, welfare recipients will find themselves at the tail end of the job applicant queue, and few of them will obtain jobs. Those who find jobs will displace other recipients, or former recipients, or similar workers who would otherwise have found employment. The ultimate effect of welfare reform will be to increase the ranks of the unemployed and to inflict severe hardship on recipients deprived of public aid.

In forecasting the availability of jobs for welfare recipients, it is clearly important whether the supply-and-demand model or the queuing model is more accurate. The relevance of the two models depends crucially on the time frame of analysis. In the short run, employers have little flexibility in altering their product lines or methods of production to take advantage of a surge in the number of unskilled job applicants. They may be unwilling to make a commitment to new product lines or production methods until they are certain unskilled workers' wages will remain low and the supply of unskilled workers remains secure. In the short run, then, the number of job vacancies in a local labor market will almost certainly shrink as welfare recipients are forced to seek and accept jobs. Thus, the number of unemployed workers (that is, jobless workers willing to accept jobs at the prevailing wage) will almost certainly rise.

The queuing model provides a plausible description of how local labor markets will operate in the short run. In the long run, the relevance of the supply-and-demand model increases. Over a period of several years employers have many opportunities to reconfigure their production methods to take advantage of a more abundant and cheaper unskilled workforce. They may consider introduction of new labor-intensive goods or services that would have been unaffordable when unskilled workers received a higher wage. Many of the fastest growing occupations, such as home health care aide, child care worker, and lawn service technician, would not make much economic sense, for example, if the relative wage received by unskilled workers were as high in 1998 as it was in 1968. The fall in the relative wage of unskilled workers has made it possible for employers to expand many businesses that would have been unprofitable at a higher prevailing wage.

The distinction between the short and long runs is important for another reason, too. Many people who are pessimistic about the capacity of local job markets to absorb welfare recipients view residential and business locations as fixed. They recognize that the geographical distribution of jobs differs greatly from the residential location of welfare recipients forced to seek jobs. The spatial "mismatch" between jobs and job seekers severely limits the employment opportunities available to recipients.[3]

While this view is plausible for short time intervals, such as half a year, it is less relevant when the period of analysis is extended. People who live in localities, states, or regions where well-paid jobs are scarce or unemployment is high frequently move to areas where job prospects are better. For example, among Americans between 20 and 29 years old, the age group in which geographical mobility is highest, one-third of all people moved from one residence to another between March 1995 and March 1996. In the same period, 12 percent of 20- to 29-year-olds moved across county boundaries and 5 percent moved across state lines.[4] Business location moves are less frequent but not uncommon. Businesses often base their location decisions on the availability of a large, adequately skilled, and relatively inexpensive workforce. Locations in the Southeast and mid-South have long been favored by manufacturing establishments because wages of unskilled and semi-skilled workers are lower in that region than they are in other parts of the country. The migration of manufacturing jobs to the South has helped raise southern wages closer to the national average wage. Even if existing local employers are unwilling to offer new jobs to welfare recipients, new employers or employers relocating from another region can fill the job gap—in the long run. Alternatively, unsuccessful job seekers can look for work in another area. Jobless workers who are unwilling to relocate can eventually benefit from other workers' mobility. If their unemployed neighbors move to another area to find work, remaining residents in a neighborhood will face less competition when a new job vacancy opens up.

Job Qualifications of Welfare Recipients

Most adults who receive Temporary Assistance for Needy Families (TANF) are young mothers with limited schooling and very low scores on standardized tests of ability and achievement. Even if these women were not responsible for the care of young children, they would face severe problems finding and holding well-paid jobs. Child care responsibilities make their employment problems even more formidable.

The educational attainment of aid-dependent mothers, though increasing, remains low. A survey conducted by the Department of Health and Human Services (DHHS) shows that 40 percent of mothers receiving welfare in 1994 had failed to complete high school.[5] In comparison, more than 85 percent of all 25- to 34-year-old American women in 1994 had completed high school. About 1 percent of recipient mothers had graduated from college, compared with 23 percent of all 25- to 34-year-old women. Adult welfare recipients also perform poorly on standardized tests of ability and achievement. Among 25-year-old women who received Aid to Families with Dependent Children (AFDC) year-round in the mid-1980s, for example, almost three-quarters obtained an aptitude test score that placed them in the bottom one-quar-

ter of all test takers. Only 12 percent obtained a score in the top half of test takers.[6] Limited education and poor performance on standardized tests greatly restrict the kinds of jobs that most aid recipients can obtain.

The poor preparation of welfare recipients is reflected in their actual job experience. Few recipients work and few have much recent work experience. Less than 9 percent of the cases included in the 1994 DHHS survey reported current wage income, for example. Some mothers who reported no earnings to welfare offices probably earned unreported wages or received irregular labor income that went unreported. In addition, many women who initially file for assistance benefits have earned some wages in the recent past.[7] Most evidence confirms, however, that a majority of single women who are long-term recipients of cash assistance do not currently work and do not accumulate much work experience. In the fifth year after women were enrolled in these welfare-to-work experiments during the 1980s, the employment rate averaged 38 percent among women who had been enrolled in the experimental welfare-to-work programs and 36 percent among women who had been enrolled in the control group.[8]

The circumstances are now different. In spite of recipients' educational deficiencies, poor aptitude test scores, and limited work experience, welfare reform will boost their overall employment and labor force participation. Working-age adults who have relied on cash assistance under TANF will be forced under new state programs to search for work, enroll in training programs, or accept workfare jobs. The question is, how many will actually find jobs?

To form an estimate of the likely effect of reform on overall employment, it is helpful to consider the number of working-age adults who receive welfare and will be affected by reform. In 1994, when the welfare caseload reached its peak, 5.05 million families received AFDC. Of these, 4.18 million (or 83 percent) contained at least one adult member and 0.32 million (8 percent) contained two adult members.[9] The new federal law and reformed state programs imposed new work obligations on adults who receive welfare. On the assumption that one-fifth of adults would be exempted from the requirements because of a physical or mental incapacity or some other temporary or permanent barrier to employment, approximately 3.34 million adults would have been affected by tough work requirements if such requirements had been in place in 1994.

For purposes of comparison, this is about 2.6 percent of the average number of labor force participants in 1994 and 42 percent of the number of unemployed in that year. Some welfare recipients were already employed in 1994, and reform is unlikely to change the employment status of women who already work. But tabulations of the 1994 Survey of Income and Program Participation (SIPP) survey suggest that 12 percent of recipient mothers were unemployed (that is, jobless but seeking work) and 74 percent were out of the labor force (jobless and *not* seeking work).[10] If all these out-of-the-labor-force mothers had been forced to look for work in 1994, the aggregate number of unemployed would have risen almost 2.5 million and the unemployment rate would have jumped 2.3 percentage points (from 6.1 percent to 8.4 percent).

Evidence

Can the U.S. job market accommodate such an influx of welfare recipients into the labor force? Analysts point to three kinds of evidence on this question: BLS estimates of occupational and job growth over the next decade; responses of employers to surveys on the availability of jobs and the qualifications necessary to obtain new jobs; and the historical experience of job seekers after the supply of labor increases.

BLS Occupational Forecasts

Every two years the BLS makes detailed projections of the future growth in industrial and occupational employment. Its most recent forecast was published in November 1997 and covers the period from 1996 through 2006.[11] The occupational projections are helpful for assessing welfare recipients' job prospects, because each occupation can be classified by the educational and skill requirements needed for entry into the occupation. The overwhelming majority of welfare recipients are high school dropouts or people who have failed to obtain schooling and institutional training beyond high school. The occupations most suited to workers with these limited qualifications require only short-term on-the-job training. Workers can develop the skills needed for acceptable performance in these occupations with a brief orientation or with less than a month of on-the-job instruction and experience. No formal schooling beyond high school is required. In 1996, almost 54 million people worked in these low-skill occupations, and their jobs accounted for 40 percent of total U.S. employment.[12]

Significantly, more than half of the detailed occupations with the largest projected job growth between 1996 and 2006 require only short-term training. Table 1 shows BLS estimates of projected employment gains in the 11 low-skill occupations expected to see the largest absolute gains in net employment. The first column shows the total number of people employed in the occupation during 1996. The second and third columns show the projected increase in the number employed in the occupation, measured in absolute and percentage terms, between 1996 and 2006. The last two columns show the annual requirement for new employees in the occupation measured on a gross and net basis. New employees are needed in an occupation not only because net employment in the occupation will grow but also because workers will leave the occupation to find jobs in other occupations or to retire. Over the 1996–2006 period approximately 1.27 million cashier jobs will have to be filled each year, although only 0.19 million will represent net new jobs for people with the skills needed to become cashiers.

Overall, the BLS predicts that net employment in low-skill occupations will rise 7.2 million in the 10 years after 1996. The percentage gain in net employment in these occupations is only slightly below the increase in total employment (13.5 percent versus 14.0 percent). The bureau therefore projects that employment growth in the lowest-skill occupations will be approximately as fast as growth of total employment. Whether this job growth is fast enough to absorb welfare recipients leaving the rolls is uncertain. The number of job openings in low-skill occupations certainly seems large enough to employ 2.5 million welfare recipients, at least eventually. The 11 occupations listed in table 1 are projected to offer 6.5 million job openings

per year over the next decade, although less than 1 million of those job openings represent net additions to the stock of employment in unskilled occupations. Welfare recipients and former recipients will obtain a share of these jobs, but the percentage they obtain depends critically on their relative qualifications compared with those of other workers who will compete for the same jobs, including teenagers, poorly educated immigrants, and less-educated childless adults.

Employer Surveys

Some of the most discouraging forecasts of the job prospects of welfare recipients are derived from employer responses to surveys about job vacancies and future skill needs. Evidence indicates that the number of job openings, as documented in help-wanted ads or

Table 1
Job Growth in Selected Occupations Requiring Only Short-Term On-the-Job Training

Occupation	1996 employment (000s)	1996–2006 change in employment (000s)	Percentage change	1996–2006 average annual job openings (000s)	
				Due to growth and total replacement needs[a]	Due to growth and net employment needs[b]
Cashiers	3,146	530	16.8	1,265	190
Retail salespersons	4,072	408	10.0	1,272	170
Truck drivers	2,719	404	14.9	482	78
Home health aides	495	378	76.5	180	44
Teacher aides and educational assistants	981	370	37.7	296	50
Nursing aides, orderlies, and attendants	1,312	333	25.4	340	51
Receptionists and information clerks	1,074	318	29.7	336	52
Child care workers	830	299	36.1	322	39
Helpers, laborers, material movers	1,737	275	15.8	598	86
Food counter and related workers	1,720	243	14.1	841	125
Food preparation workers	1,253	234	18.7	559	87

a. Job openings due to growth plus total replacement needs represent *gross* annual average job openings stemming from projected employment change over the 1996–2006 period and replacement of workers who leave their jobs to work in another occupation, stop working because of retirement or other reasons, or die.
b. Job openings due to growth plus *net* replacement needs represent annual average job openings stemming from projected employment change over the 1996–2006 period and net replacement of workers who leave their jobs to work in another occupation, leave the labor force because of retirement or other reasons, or die. Net replacements are less than total replacements because a measure of entrants is subtracted from the number leaving the occupation.
Source: Bureau of Labor Statistics, unpublished data from 1996–2006 occupational employment projections.

employer listings with the Employment Service, falls short of the number of unemployed workers at every stage of the business cycle, including periods of peak employer demand.[13] Most Americans who lose their jobs become reemployed within a few weeks or months, suggesting that the job shortage is not terribly severe. A minority of workers, especially the unskilled, often remain jobless for long periods, however. In May 1998, for example, more than 800,000 workers reported being unemployed for six months or longer in spite of an economic expansion that had lasted more than seven years and an unemployment rate of just 4.3 percent.

The difficulty that unskilled workers face in finding jobs is suggested by a well-known study of Harlem fast food outlets.[14] The authors focused on job applications for some of the nation's least skilled positions, as cashiers and food preparation workers in fast food restaurants. In spite of the low wages and poor fringe benefits offered by these jobs, the analysts report that there were 14 job applicants for each job opening in these restaurants. In this kind of environment, an unskilled worker could easily file dozens of job applications without securing a single job offer. Applicants' job prospects might be much better at fast food outlets in the low-unemployment suburbs, but many inner-city residents lack the knowledge or transportation to find suburban jobs.

Some of the most discouraging forecasts of all come from analyses of employer skill needs as described by employers themselves. Data from a multicity survey of employers on the reported skill requirements of the most recent job vacancies actually show that very few of the jobs, even those open to workers without a high school diploma, can be filled by applicants who lack some general skills, including the ability to read and write or to interact respectfully with customers. In addition, many job openings require applicants to possess certain job-specific skills, which might only be obtained through on-the-job work experience in a previous job.[15]

The results of a comparison between employers' skill requirements and geographical locations with job seekers' skills and residential locations are disheartening.[16] They suggest that 9 to 17 percent of actual and potential job seekers will have severe problems finding jobs in the short run, with the largest problems occurring in metropolitan areas such as Detroit and Los Angeles, where large unskilled populations are geographically concentrated. They also imply that up to 20 percent of white and 40 percent of Hispanic and African American welfare recipients will have severe difficulty obtaining a job. These estimates are derived from surveys conducted before the 1996 reform was passed and most state reforms were implemented. When the percentage of welfare recipients seeking work increases, as must occur when state reforms are fully implemented, the short-term job finding problems of recipients may worsen.

Historical Experience

If the short-term job prospects of welfare recipients seem discouraging, historical evidence about the long-term job creating capacity of the U.S. market is more reassuring. Over the long run, the U.S. labor market has absorbed huge numbers of extra workers without a significant rise in joblessness. From 1964 through 1989, when the baby boom generation reached adulthood and entered the job market, the labor force grew by 50.4 million persons, or slightly

more than 2 million a year. Most of this surge was driven by the jump in U.S. fertility between 1946 and 1964, but part was also due to a growing demand for jobs among women, who entered the workforce in record numbers, and a fivefold increase in the rate of immigration. From 1964 to 1989 the number of Americans holding jobs climbed by 47.7 million, or slightly more than 1.9 million workers a year. About 95 percent of new job seekers in this period were able to find jobs, though the number of people available for work swelled by two-thirds. The unemployment rate rose only slightly, increasing from 5.0 percent to 5.2 percent. To be sure, unemployment climbed sharply in the 1970s and early 1980s when the labor market was unable to absorb promptly an enormous number of new entrants. But most of the rise in joblessness during those decades was due to business cycle developments, not to the rapid rate of workforce growth.

Many people find it implausible that so many extra job seekers can be absorbed so quickly by the labor market. They overlook an important characteristic of flexible capitalist labor markets. In the long run employers are free to change their product lines and production methods to exploit the availability of abundant, low-wage labor. Moreover, the doubters ignore the possibility that wages can rise or fall in response to the entry and exit of large numbers of potential workers. In the 1970s, for example, the wages received by younger workers fell in comparison with those earned by older workers, in large measure because younger workers became much more abundant. Wages received by new college graduates temporarily fell in comparison with wages received by young workers with less education, because of the rapid rise in college completion rates. Faced with a huge increase in the availability of workers who had limited job experience, employers adopted production methods that took full advantage of less-experienced workers. Restaurant meals were prepared and served by eleventh-grade students and high school dropouts rather than by experienced cooks or waiters. Gardening and domestic cleaning were performed by unskilled and semi-skilled employees rather than by homeowners themselves. In the end, 95 percent of new job seekers were successful in finding jobs. Of course, many of the new jobs were not particularly well paid. The huge increase in the abundance of less-experienced workers is one reason that pay in many occupations fell.

Even though most welfare recipients would eventually find jobs if forced to do so, the influx of these unskilled workers could depress the wages received by all less-skilled workers. If 2.5 million to 3.0 million recipients were forced to accept jobs, for example, the wages available to less-skilled workers would almost certainly fall below the wages that would prevail if welfare had been left unchanged. Employers might modify some existing jobs and develop new ones to take advantage of the abundance of less-skilled single mothers, but a likely long-term effect of an influx of less-skilled workers is a reduction in hourly wages. With fierce competition for unskilled and semi-skilled jobs, wage rates would be driven down, at least modestly, and welfare recipients could face worse job prospects than those faced by women who left the welfare rolls in the 1980s and early 1990s.

Recent Experience

Welfare reform and other changes in government policy have almost certainly affected the labor market status of several hundred thousand former recipients and mothers who would

have been recipients if reform had not occurred. The sharp decline in the rolls from their peak in 1994 is at least partly due to state-level reforms that began even before Congress passed the federal reform law in August 1996 (figure 1). The decline may also be due to changes in the Earned Income Tax Credit (EITC) that greatly increased the amount of earnings supplementation available to low-wage mothers with two or more children. The increased generosity of the EITC after 1993, combined with tougher state work requirements, has contributed not only to a decline in the welfare rolls but also to an unprecedented jump in labor force participation and employment among divorced, separated, and never-married mothers.

The change in labor force behavior of the group most likely to receive welfare benefits—separated, divorced, and never-married mothers who live with their own children under 18—is shown in figure 2. The top panel in the figure shows a sharp rise in the labor force participation rate of unmarried mothers in relation to that of married mothers who live with their spouse. The jump began in 1994. The labor force participation rate of separated, divorced, and never-married mothers remained relatively constant from the late 1970s through 1993, while the participation rate of married mothers living with husbands rose steadily over that period. Starting in 1994, the participation rate of unmarried and separated mothers began to rise, increasing 11 percentage points (or 17 percent) in the five years from 1993 to 1998. The jump in the employment-population ratio of separated and unmarried mothers, shown in the lower panel, is equally impressive. The employment-population ratio increased 11.1 percentage points (or 19 percent) between 1993 and 1998 after rising very little over the previous 17 years.[17] There is no evidence in figure 2 that the labor force participation and employment rates of married mothers increased by comparable amounts. The liberalization of the EITC, new welfare-to-work reform programs at the state level, and the 1996 federal welfare reform apparently induced major changes in the labor market behavior of unmarried mothers.

Figure 1
Number of AFDC Cases, 1960–98

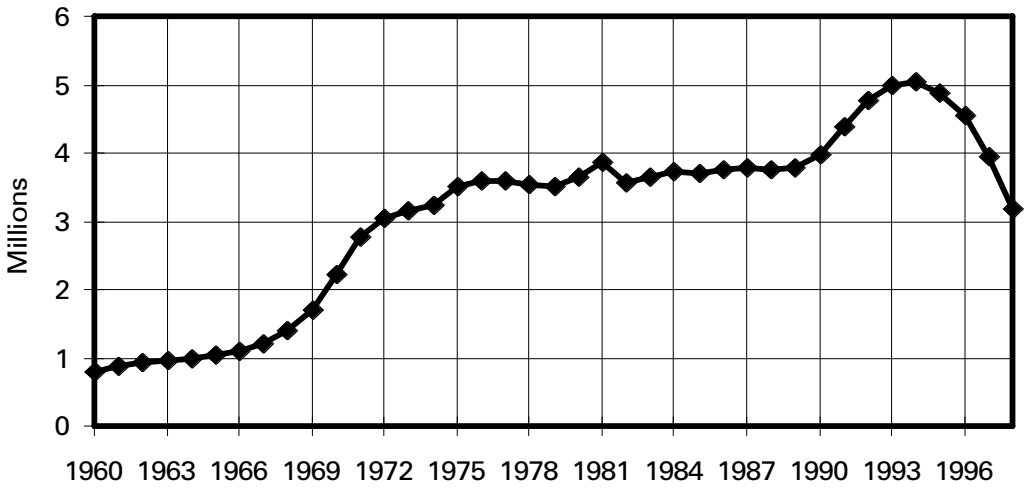

Figure 2
Labor Force Participation Rate and Employment-Population Ratio of Married and Unmarried Mothers, 1978–98

It is illuminating to compare the amount of caseload reduction with the increase in the number of unmarried mothers who are employed or in the labor force. From 1994 to March 1998 the number of AFDC or TANF cases fell approximately 1.8 million, or 36 percent. Over the same period the number of separated, divorced, and never-married mothers in the labor force increased 882,000 (14 percent) and the number actually holding jobs increased 972,000 (18 percent). These tabulations suggest that a large part of the decline in the AFDC/TANF caseload was associated with a jump in employment among the mothers most likely to receive welfare.[18]

The entire increase in the number of mothers seeking work was matched by an increase in the number of mothers who actually hold jobs. The unemployment rate of separated, divorced, and never-married mothers actually fell 2.9 percentage points (22 percent) between 1994 and 1998, and the unemployment rate of never-married mothers fell 4.4 points (23 percent). If the American job market has had a serious problem absorbing mothers who have been pushed off the welfare rolls, the fact is not evident in these data.

Where Do the Jobs Come From?

As we have seen, the educational and skill deficiencies of welfare recipients restrict their access to well-paying occupations, but they do not preclude employment altogether. An unskilled welfare recipient, if she is able-bodied and moderately resourceful, can usually find an employer willing to offer her a job if she is willing to accept a low enough wage and an inexpensive package of fringe benefits. In many urban labor markets, for example, jobless workers with few qualifications apply to temporary employment agencies for short-term work. Although the pay is uncertain and irregular, workers who are diligent and persistent can usually obtain temporary work assignments, at least occasionally, and can often find permanent employment if their job performance impresses a manager who has provided a short-term assignment. Other job opportunities for less-qualified workers can be found in low-wage retailing, cleaning services, agriculture, manual labor, and informal child care. With relatively little training, less-educated women can work as home health aides.

None of these job opportunities offers bright promise of high income or steady promotions, however. Many jobs bring a large risk of layoff or recurring unemployment. Of the 11 low-skill occupations listed in table 1, only one (teacher aides and educational assistants) has below-average risk of unemployment; 6 carry a high risk of unemployment; the other 4 carry a very high risk of unemployment.[19] Work hours in these occupations are often short, which is an advantage for mothers attempting to rear young children but a disadvantage for mothers attempting to earn a high weekly income. All but one of the occupations listed in table 1 ranks "high" or "very high" in terms of the percentage of workers who are on part-time schedules.

The experiences of welfare recipients in Milwaukee County who were required to participate in Wisconsin's new state welfare initiative can shed light on the job prospects of current and future recipients.[20] As reflected in quarterly wage records from Wisconsin's unemployment insurance (UI) program, of the 25,125 single parents receiving AFDC in Milwaukee County

in December 1995 and covered by Wisconsin's work obligations, 72 percent (18,000) found at least one job between January 1996 and March 1997.

A total of 7,508 single parents who received AFDC in December 1995 were no longer receiving benefits in September 1996. Of these parents who left welfare, 66 percent had UI-covered earnings in the October–December 1996 quarter; 16 percent had earnings high enough so that on an annual basis their earnings would place them above the poverty threshold; and 34 percent had no UI-covered earnings at all. Despite the high employment rates of single parents leaving Wisconsin's welfare program, many parents' employment experiences were cut short by a spell of joblessness. One-third of the parents who entered employment in the first quarter of 1996, for example, had no recorded earnings in the first quarter of 1997, and about one-quarter of the remaining parents earned less than $500 in the first quarter of 1997.

The same experiences also provide insight into the nature of jobs that welfare recipients find. The 18,000 AFDC recipients in Milwaukee County who found work after December 1995 held a total of more than 42,000 jobs over the next year—about 2.3 jobs per working recipient. Over half of these jobs were obtained from temporary help agencies (30 percent of all jobs) or in retail trade (23 percent of jobs). The large number of jobs per working recipient implies that many recipients found jobs that ended quickly. For example, only about 60 percent of workers who entered a job in one quarter of 1996 were still employed in the same job one quarter later. Although the UI wage records do not provide evidence about the exact timing of job finding and job loss, it seems likely that most workers who moved from one employer to another suffered at least a brief spell of unemployment. Wisconsin welfare recipients certainly found jobs. Few landed good ones, however, and many exited quickly from the jobs they found.[21]

Conclusion

The recent job finding success of welfare recipients, both in Wisconsin and in the nation as a whole, suggests that when employer demand is high and unemployment low most recipients who diligently seek work will eventually find it. The experience in Wisconsin and elsewhere also suggests, however, that the jobs they find will not be well paid and may not last long. The queuing model offers a reasonable model of local labor markets in the very short run, but is a poor approximation of the market over periods of a year or more. Few welfare recipients find themselves permanently stuck at the end of a long job queue. The great majority of unskilled workers, with intense effort, can eventually find a job of some kind. Because of the nature of the jobs they find and the poor preparation they bring to those jobs, however, unskilled single parents will usually find low-wage jobs and jobs that end quickly. The supply-and-demand model accurately predicts that in the long run, as the supply of unskilled workers increases, the wages they earn will tend to fall, encouraging employers to create jobs that exploit the availability of a cheaper workforce.

The architects of welfare reform can point to two notable achievements so far. Reform has boosted the fraction of time that single mothers devote to paid work. It has also increased the

percentage of family income that single mothers derive from a weekly paycheck. These achievements are likely to endure, even when employer demand slackens and overall unemployment rises. The proportion of time that an individual parent spends in employment may fall when the economy weakens, but only in rare cases (or in severe recessions) will it fall to zero for years at a time. The success of welfare reform has been aided by a strong labor market. The rapid decline in the rolls and sharp increase in the employment rate of single mothers has also been helped by the fact that the most-employable mothers have been the first to leave the rolls. States where the caseload has fallen by 50 percent or more will find it harder to place remaining, less-skilled recipients in private-sector jobs. But many states have a long way to go before they fully implement a comprehensive welfare-to-work strategy. In those states, many parents remain on the rolls who can be expected to land jobs quickly if they are pushed to find work.

State and federal reform has so far been successful in boosting the employment rate of single mothers. Whether it has increased poor families' net incomes is less certain. For single mothers forced to accept a series of temporary, poorly paid jobs, the idea that reform has improved their standard of living may seem strange. But tougher welfare rules have pushed more of these mothers to seek jobs—and in most cases to find them.

Endnotes

1. This view of the labor market underlies the analysis in Blank (1995) and Burtless (1995).
2. A version of the queuing model is the basis for analysis in Holzer and Danziger (1998).
3. See the Lane chapter and the Holzer chapter in this volume for detailed discussions of this mismatch.
4. U.S. Department of Commerce, Bureau of the Census (1997), p. 4.
5. U.S. Congress (1996).
6. Burtless (1995), p. 77.
7. Over 60 percent of first-time claimants for welfare report work experience within the year prior to filing for AFDC (Pavetti [1995], p. 33).
8. The control group consisted of randomly selected AFDC recipeints who were not enrolled in the experimental work and training program. See Friedlander and Burtless (1995), p. 88.
9. U.S. Congress, House of Representatives, Ways and Means Committee (1996), p. 479.
10. Burtless, forthcoming.
11. Silvestri (1997).
12. Silvestri (1997), p. 81.
13. Abraham (1983); Zagorsky (1998).
14. Newman and Lemmon (1995).
15. Holzer (1996).
16. Holzer and Danziger (1998).
17. The increases in labor force participation and employment rates among *never-married* mothers, the mothers most affected by reform, were even larger. Never-married mothers saw their labor force participation rate increase 18 percentage points (33 percent) and their employment-population ratio rise 17.5 percentage points (40 percent) between 1993 and 1998. These increases occurred after a period of 15 years in which the participation and employment-population rates of never-married mothers rose very modestly.
18. Without additional information, it is unclear how we should compare the 1.8-million drop in the welfare caseload with the 972,000 rise in employment among divorced, separated, and never-married mothers. As noted earlier, 8 percent of the 1994 caseload consisted of families containing two parents. Most of the impact of new welfare rules on two-parent families will probably be reflected in changes in behavior of married men and women rather than of single women. Another 17 percent of the 1994 caseload consisted of fami-

lies where no adult was a member of the assisted family unit. The new welfare rules might have only a slight effect on the work behavior of people in these households. Finally, the new rules may have affected the welfare status but not the employment status of single women on welfare who *already* held jobs. Some of these women may have been spurred to increase their weekly hours or to leave the rolls, but this change in their behavior would have no impact on their employment status; they were employed both before and after the change. It seems highly likely, however, that the big and unprecedented jump in employment among single mothers is closely connected to the big and unprecedented drop in the welfare caseload.

19. The Bureau of Labor Statistics classifies each occupation according to its historical unemployment risk. Occupations are divided into four risk categories, ranging from "very low" to "very high" risk of unemployment.

20. Pawasarat 1997a, 1997b.

21. Other states have also conducted studies of welfare "leavers," many with support from HHS. While survey methods vary somewhat, the general findings are similar. See Brauner and Loprest (1999).

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Chapter 4

Do Minimum Wages Help or Hurt Low-Wage Workers?

Mark D. Turner

Introduction

The Fair Labor Standards Act (FLSA) that mandated a federal minimum wage was adopted by the Congress in 1938. Since then, the federal minimum wage has been increased 19 times, from 25 cents per hour in 1938 to $5.15 in 1997. No employer may legally pay, in industries and occupations the FLSA currently covers, less than $5.15 per hour. In 1996, 79.4 million wage and salary workers, 64.9 percent of all workers, were covered by the FLSA.[1] In 1998 President Clinton proposed to increase the federal minimum wage from $5.15 to $6.15 in two 50-cent increments over two years. The federal minimum wage is complemented by state minimum wage laws that often mandate higher wage floors than the federal government.[2]

> The authors of the FLSA believed its primary objective was ... "eliminating labor conditions detrimental to the maintenance of the minimum standard of living necessary for health, efficiency, and general well-being of workers ... without substantially curtailing employment or earning power."
>
> —Fair Labor Standards Act of 1938

In 1996, President Clinton signed legislation raising the minimum wage by 90 cents

from $4.25 to $5.15 an hour.[3] This legislation followed heated debate among economists and policymakers about the effects of minimum wages on employment, skill formation (i.e., educational attainment and on-the-job training), and the economy. In fact, the debate stems from many different scholarly studies with contradictory findings.

This paper summarizes research on the effects of minimum wages on employment, skill formation, and welfare participation. It also highlights areas of consensus as well as disagreement in the literature and identifies important gaps in the research. The second section describes minimum wage workers' demographic and socioeconomic characteristics. The third section simulates the impact President Clinton's proposed minimum wage increase would have on low-wage workers' hourly earnings. In this section, recent research examining the effect of minimum wages on employment, skill formation (i.e., educational attainment and on-the-job training), and welfare participation is highlighted. The last section describes areas of consensus as well as disagreement in the literature and identifies future research topics.

Key Findings

- A disproportionate share of minimum wage workers are teenagers and most do not live in poor families.
- A sizable portion of minimum wage workers are poor parents.
- Negative employment effects, if any, appear to be slight and are difficult to detect.
- Minimum wages curb employer-provided training opportunities for low-wage workers and may reduce educational attainment for some at-risk groups.
- Moderate minimum wage increases will *not* reduce poverty rates.

Who Are Minimum Wage Workers?

Table 1 presents the demographic and job characteristics of workers who would be affected by an increase in the federal minimum wage from $5.15 to $6.15 per hour. The minimum wage increase would directly affect 17 percent of all earners, or 11.2 million workers. President Clinton's proposal would particularly affect adult working women and teenagers. Teenagers represent 27.3 percent of affected workers, but comprise only 7.5 percent of all workers. Most of the direct beneficiaries of a new minimum wage would be women (62.3 percent). Only 17.3 percent of those benefiting from the proposed minimum wage are full-time workers, while an additional 7.5 percent work 20 to 34 hours weekly. Most beneficiaries (75.1 percent) work less than 20 hours a week. The average minimum wage worker worked 9.2 hours per week in 1998.

Table 1
Characteristics of Minimum Wage and Other Wage Earners, 1998

Characteristics	Workers directly affected by proposed minimum wage ($5.15–$6.14)	Other low-wage workers ($6.15–$6.64)	Workers above minimum wage ($6.65+)	All workers
Average hourly wage	$5.64	$6.41	$12.49	$11.04
Employment (in millions)	11,166	3,344	52,447	66,958
Share of total	17%	5%	78%	100%
Demographics				
Men	37.7%	40.2%	53.5%	50.2%
Women	62.3%	59.8%	46.5%	49.8%
White	80.8%	82.2%	82.3%	82.0%
Men	30.9%	32.6%	45.0%	42.0%
Women	50.0%	49.6%	37.3%	40.0%
Black	13.8%	14.2%	13.2%	13.4%
Men	4.7%	5.2%	6.3%	6.0%
Women	9.1%	9.1%	6.9%	7.4%
Teenagers (16–19)	27.3%	20.6%	2.5%	7.5%
Young adults (20–24)	19.5%	21.6%	11.5%	13.3%
Adults (25+	53.2%	57.9%	86.0%	79.1%
Parents	19.4%	24.6%	38.0%	34.3%
Work hours				
Full-time (35+)	17.3%	22.2%	44.8%	39.1%
Part-time				
20–34 hours	7.5%	7.6%	3.5%	4.4%
1–19 hours	75.1%	70.2%	51.7%	56.5%
Average weekly hours	9.2	11.2	19.6	17.5
Poverty status				
Below poverty	16.4%	11.4%	4.8%	7.1%
100–124% poverty	7.2%	4.8%	2.8%	3.6%
125–149% poverty	5.1%	4.8%	3.0%	3.5%
150% or more of poverty	71.3%	79.0%	89.4%	85.9%
Industry				
Manufacturing	9.3%	13.6%	22.8%	20.1%
Retail trade	46.8%	35.3%	13.3%	20.0%
Service	34.2%	37.8%	37.3%	36.8%
Occupation				
Managerial & professional	5.5%	6.9%	16.8%	14.4%
Technical, sales	35.3%	33.9%	32.2%	32.8%
Service	39.2%	33.0%	29.0%	30.9%
Operators & laborers	20.0%	26.2%	22.0%	21.8%

Minimum wage workers are heavily concentrated in the retail trade sector. Although the retail trade workforce comprised only 20 percent of all earners in 1998, this group accounted for 47 percent of all minimum wage workers.

These same data suggest that most workers likely to be affected by the proposed minimum wage increase are not poor. Table 1 shows that only 16 percent of minimum wage workers live in families with incomes below the poverty level, and 12 percent are near poverty (100 percent to 149 percent of poverty). The remaining 71 percent of minimum wage workers have family incomes of at least 150 percent of poverty. Bluestone and Ghilarducci (1996), for example, noted that only a small proportion of the poor would directly benefit from increasing the minimum wage, despite the fact that nearly 75 percent of poor households include someone who works.

According to estimates by Richard Burkhauser and Kenneth Couch of Syracuse University and their colleague, Andrew Glenn of Vanderbilt University, only 16.9 percent of the workers in poor households in 1991 were in jobs paying below the proposed boost in the statutory minimum to $5.15 an hour. Except for the possible indirect benefits, the other 83 percent of working-poor households would not be helped since their working members already earn wages above this level.

Most workers affected by the proposed minimum wage are adults, of whom many are parents. Table 1 shows that 53.2 percent of affected workers, or 6 million, are adults (25 years or older). Over one-third (2.2 million) of these adults directly affected by the minimum wage are also parents (adults 25 and older with resident biological children less than 18 years old). Additional findings (not shown) indicate that these parents have 1.6 million children less than 6 years old and 5.4 million children less than 18 years old. Many of these parents (0.7 million) are single parents, and 1.4 million are poor or are near-poor.[4] These poor or near-poor parents have 1.0 million children less than 6 years old and 2.9 million children less than 18 years old.

A vast majority of teens and young adults who would be directly affected by the proposed minimum wage are also enrolled in school—66.5 percent (or 3.6 million) of minimum wage workers (ages 16 to 24) are enrolled in high school or college. However, most of these teens and young adults enrolled in school do not live in poor families. Data from 1998 indicate that 82.6 percent (2.9 million) of enrolled teens and young adults live in families with incomes greater than 149 percent of poverty. Again, not all of these findings are shown in the table.

A Living Wage or No Wage?

The effectiveness of minimum wages as a policy tool centers on its ability to boost hourly wage rates and to minimize its adverse side effects on employment and skill formation.

Will the Administration's Proposal Provide a Living Wage?

Two methods are employed to simulate the possible effect of the proposed minimum wage increase, from $5.15 to $6.15 per hour, on hourly wage rates. The first method assumes that

the minimum wage increase has only a "direct" effect; that is, it raises the wages of those earning between the current level and the proposed new level up to the new level. Under this method, approximately 11 million workers who report hourly wages would receive a pay increase. However, a $1 (or 19.4 percent) increase in the federal minimum wage does not represent a $1 increase in the wage of *all* workers making less than the proposed minimum wage, $6.15 an hour. Table 2 shows that the 1.8 million hourly workers earning $5.15 an hour, the prevailing federal minimum wage, would receive the full $1 pay increase, assuming no disemployment effects and full compliance. The other 9.2 million workers making between $5.15 and $6.14 an hour would receive a smaller raise—on average, 51 cents or 9.5 percent.[5] Almost 4 in 10 workers directly affected by the minimum wage increase would receive less than a 20-cent pay increase.

The second method assumes that there is also an indirect effect on workers earning below the current minimum and a spillover effect that boosts the earnings of workers in some low-wage sectors who are currently earning more than the minimum. Using this methodology, a minimum wage increase would significantly narrow the pay gap between middle-wage earners (at the median, or 50th percentile) and low-wage earners (at the 10th percentile) among both men and women.[6] Moreover, the higher minimum wage would also narrow the pay gap between college-educated women and those who do not complete high school.

Table 2
Distribution of Pay Increases with a $6.15 Minimum Wage

Pay Increase	Number of workers (millions)	Percent of workers
$0.01 to 0.09	0.134	1%
$0.10 to 0.19	4.185	39%
$0.20 to 0.29	0.082	1%
$0.30 to 0.39	0.168	2%
$0.40 to 0.49	1.185	11%
$0.50 to 0.59	0.202	2%
$0.60 to 0.69	1.419	13%
$0.70 to 0.79	0.291	3%
$0.80 to 0.89	0.336	3%
$0.90 to 0.99	1.370	12%
$1.00	1.794	16%
Total	11.166	100%

The mean and median pay increase was 51 cents and 45 cents, respectively.
Note: Assumes no disemployment. Analysis is limited to workers who reported hourly wage rates between $5.15 and $6.14 per hour in the 1998 March Current Population Survey, Outgoing Rotation (CPS-OR) group.
Source: These estimates are based on an analysis of respondents in the March 1998 CPS-OR group. The sample contains noninstitutionalized civilians ages 16 and over, who were employed in the public or private sector and who reported hourly wage rates. These wage rates exclude overtime pay, tips, or commission. CPS-OR weights are used to make the sample nationally representative. Due to misreporting of wage rates, these estimates may underestimate the number of hourly workers directly affected by proposed increases in the minimum wage.

Do Minimum Wages Reduce Employment Opportunities?

While economic theory predicts that higher minimum wages will lead to lower employment, findings from recent studies seem to be mixed.[7] Overall, recent studies have found that minimum wages have negative effects on employment but the magnitudes have varied across studies. At the lower end, researchers have found that a 10 percent minimum wage hike would reduce employment by only 1 percent. At the high end, other researchers have found that the same hike would reduce employment by 10 percent.[8] Moreover, other studies have concluded that minimum wages have *no* effect or a *positive* effect on employment.[9]

Teen Employment and the Minimum Wage

" Minimum wages often hurt those they are designed to help. What good does it do unskilled youths to know that an employer must pay them $3.35 per hour if that fact is what keeps them from getting jobs?"

—Samuelson and Nordhaus (1985)

Economic theory suggests that teens bear most of the disemployment effects resulting from a minimum wage hike, compared with any other demographic group (e.g., adult males), since minimum wages directly affect a high proportion of employed teens. Thus, a great deal of the research examines the economic impact an increase in the minimum wage would have on teenagers. Researchers have typically examined the influence of the minimum wage on teenagers 16 to 19 years old.[10] Earlier time-series studies that analyzed the impact of minimum wages on teen employment over time found that, in addition to the disemployment effects, some teenagers withdraw from the labor force (stop actively looking for employment) following a minimum wage increase.[11]

In a recent book, David Card and Allan Krueger reviewed their research that used a natural experiment framework to examine whether minimum wages affected employment in the fast-food industry in New Jersey and Pennsylvania.[12] To examine how employment might be affected by the New Jersey minimum wage increase, Card and Krueger collected data on employment from a sample of about 400 fast-food restaurants in New Jersey and Pennsylvania before and after a minimum wage hike in New Jersey took effect.[13]

On April 1, 1992, the state minimum wage in New Jersey was increased from $4.25 to $5.05, while the minimum wage in Pennsylvania remained at $4.25 (the federal minimum wage). Other things being equal, economic theory predicts that employment would fall in New Jersey in response to the increase in the legal minimum wage and would remain unchanged in Pennsylvania. In contrast to economic theory and earlier time-series studies, Card and Krueger found that employment in the fast-food restaurants in New Jersey increased relative to employment in Pennsylvania's fast-food restaurants.

Adults and the Minimum Wage

Scant research has examined the effects of minimum wages on adult employment. In a review of studies that examined the effect of cross-state variations in minimum wages on state-level employment, Brown et al. (1982) found that minimum wages had a smaller effect on young adults (ages 20 to 24) than on teenagers. In general, a 10 percent increase in the minimum wage results in a 1 percent reduction in young adult employment. More recent research has found little evidence that minimum wages affect adults' employment status. For instance, one study found that state minimum wage increases during the 1970s and 1980s had *no* effect on adult employment.[14] Another study found weak empirical evidence to support the theoretical prediction that minimum wages differentially affect adult employment across gender and race groups.[15] In short, these studies and others suggest that moderate minimum wage increases do *not* adversely affect aggregate adult employment or reduce employment opportunities for at-risk adults (e.g., women and minorities) while improving employment opportunities for other adults.

Do Minimum Wages Redistribute Employment Opportunities?

Economic theory as well as empirical evidence has revealed that studies that have analyzed the minimum wage's net effect on employment may conceal a redistribution of employment within the analysis group—usually teenagers. Theory predicts that in comparing the effect of minimum wages on employment of different demographic groups, those groups with a larger share of minimum wage workers will face more severe disemployment. And because employed black and Hispanic teens earn lower wages on average and hence are more likely to be directly affected by minimum wage hikes than otherwise similar white teens, theory suggests that minimum wages have a larger negative effect on black and Hispanic teenagers than on white teenagers. For instance, some estimates predict that President Clinton's proposed minimum wage hike (a 19.4 percent increase) would disproportionately increase the number of minority youth who are neither employed nor enrolled in school, compared to otherwise similar white youth.[16] However, empirical research has not found conclusive or consistent evidence that minimum wages have differential effects on employment across racial groups.[17]

> "The effect of higher minimum wages is even stronger for minority youths. If these youths had a job before the minimum wage rose, they faced a 4.6 percentage point higher probability of becoming idle. A higher minimum wage also increases the probability, by 2.6 percentage points, that these youths will stop mixing work with education; they are more likely to leave school only to find themselves without employment."
>
> —Neumark and Wascher (1996b), evaluating the Clinton proposal

Skill Formation

Economic theory also predicts that minimum wages reduce on-the-job training and may lead to lower educational attainment, yet little empirical research has validated these predic-

tions.[18] Skill formation is critical in order for low-wage workers to earn higher wages and move up the economic ladder. However, minimum wages may reduce low-skilled workers' desire to obtain additional formal education and might foreclose opportunities for employer-provided training.

Do Minimum Wages Reduce Educational Attainment? Economic theory predicts that the effect of minimum wages on school enrollment is ambiguous.[19] That is, a higher minimum wage makes employment more attractive and school less attractive, causing some teens to seek employment and/or drop out of school. A number of empirical studies have advanced the literature by examining the effects of minimum wages on the school enrollment status of teenagers.[20] Minimum wage opponents contend that it decreases teen employment and prompts at-risk teens to drop out of school. For example, Neumark and Wascher's estimates suggest that President Clinton's proposed minimum wage hike would lower school enrollment by 2.8 percentage points. However, their study used an inaccurate measure of school enrollment, misclassifying some students as nonstudents. As a result, Neumark and Wascher overestimated the adverse effects minimum wages have on school enrollment.[21] Evans and Turner (1995), using an accurate measure of school enrollment but otherwise identical specifications, found that the minimum wage does *not* affect school enrollment.

Do Minimum Wages Curb On-the-Job Training Opportunities? Economic theory suggests that the effect of the minimum wage on employer-provided training is unambiguously negative.[22] To the extent that training is firm-specific rather than general, employers bear more of the costs. A higher minimum wage makes it less likely that the employer will provide firm-specific on-the-job training. Using data from the January Current Population Surveys (CPS) in 1983 and in 1991, Neumark and Wascher (1998) examined the correlation between state minimum wages and training designed to improve skills on the current job and training to qualify for a job. They found that minimum wages reduced training aimed at improving skills. For example, they estimated that the proposed minimum wage increase would reduce the probability of training by as much as 5.8 percentage points.

Do Minimum Wages Help or Hurt Welfare Mothers? At the same time the Clinton administration proposes to increase the federal minimum wage, the new welfare law—the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA)—has reformed the welfare system, resulting in significant reductions in welfare caseloads by requiring more recipients to work. Yet, conservatives commonly argue that minimum wages hinder the employment prospects of low-skilled workers because employers must pay these workers more than they would have without a wage floor. Not surprisingly, most welfare recipients are low-skilled and would likely enter the low-wage labor market, where many would be affected, directly or indirectly, by federal and state minimum wages. Thus, some economists have questioned the efficacy of raising the minimum wage when federal and local governments are trying to move welfare recipients—predominantly women with children—into private-sector jobs. In particular, opponents of the minimum wage often contend that it makes moving from welfare to work more difficult and that it has a negative effect on employment—particularly among minority welfare recipients.

On the other hand, proponents of the proposed minimum wage increase contend that the minimum wage does not reduce employment opportunities for low-skilled workers. Moreover, they argue that higher minimum wages make work a more attractive choice for welfare mothers, increase the earnings of the working poor, and reduce poverty.

> "One obvious way to mitigate TANF's adverse impact on single mothers would be to raise the minimum to at least $6 or perhaps even $6.50 an hour. While a $6 minimum would probably eliminate some marginal jobs, past experience suggests that the reduction would be small. The wage gain for single mothers would, in contrast, be quite large.
>
> —Edin and Lein (1997)

Interestingly, little empirical evidence supports either the opponents' or the proponents' hypotheses. One might suspect that minimum wages have a perverse impact on welfare recipients because they might reduce exits from Temporary Assistance for Needy Families (TANF) and/or increase TANF entrance rates. On the other hand, proponents of the minimum wage argue that increasing the minimum wage would help TANF recipients "make ends meet" in the labor market and thus provide a greater incentive for TANF recipients to exit the welfare rolls and to work. For example, one study found that some women wanted to make the transition from welfare to work, but felt that the wages were not high enough to cover the cost of child care.[23] When child care, transportation costs, loss of benefits, and tax payments are taken into account, work did not pay for many welfare recipients. Proponents of the minimum wage argue that a higher minimum wage may increase the number of women working—and reduce welfare participation—because their wages would be high enough to cover the fixed costs of employment (e.g., child care and transportation).

Two recent studies have examined the impact of minimum wages on welfare participation, both using the same data set—the Survey of Income and Program Participation (SIPP). Research by Peter Brandon (1995) suggests that welfare recipients who lived in states that increased their minimum wages between 1985 and 1990 stayed on welfare 44 percent longer than welfare recipients who lived in states that did not increase their minimum wage. Because individual characteristics (e.g., work experience and educational attainment) and local labor market conditions may also affect welfare participation, Turner (1999) isolated the effect of minimum wages on welfare participation, net of these other confounding factors.[24] In contrast to Brandon, Turner (1998a) found that higher minimum wages reduce welfare participation. Specifically, he found that a 50-cent minimum wage (9.7 percent) increase would lower welfare participation by 1.3 percentage points. An event-history analysis revealed that higher minimum wages increase the likelihood of welfare exits and had no effect on the likelihood of welfare reentries.

Increases in minimum wages might lead to lower welfare participation rates for several reasons:

- Welfare recipients may be offered more attractive marriage proposals because their potential mates now have higher earnings. To date, no empirical research has shown this to be the case.

- Earnings in the low-skilled labor market might increase, reducing the likelihood of reentering welfare.

"The minimum wage probably raises the income of some low-wage workers at the expense of others who cannot find work...."

—Samuelson and Nordhaus (1985)

Do Minimum Wages Reduce Poverty Rates? The primary goal of a national minimum wage floor is to raise the incomes of poor or near-poor families with members in the work force. Most research suggests that moderate minimum wage increases do *not* reduce poverty rates. In an in-depth study of the minimum wage effect on poverty, Neumark and Wascher (1996a) used matched CPS surveys to examine both the probability that poor families escape poverty and the probability that previously nonpoor families fall into poverty. They found that minimum wage hikes increased poverty exits but also increased the probability that previously nonpoor families entered poverty. The estimated increase in the number of nonpoor families that fall into poverty is larger than the estimated increase in the number of poor families that escape poverty, although this difference is not statistically significant. Overall the tradeoffs created by minimum wage increases more closely resemble income redistribution among low-income families than income redistribution from high- to low-income families. Earnings in the low-skilled labor market increase, reducing the likelihood of reentering welfare.

Others contend that recent minimum wage increases are an important component of a public policy strategy to reduce poverty. Combined with the Earned Income Tax Credit (EITC) and other supports (e.g., food stamps, Medicaid, child care), minimum wage increases can make work a more viable alternative for the poor.[25]

Consensus and Continuing Disagreement?

Economic theory unambiguously states that minimum wages should reduce employment opportunities for low-wage workers. However, recent empirical evidence has forced economists and policy analysts to question the validity of this theory. In particular, economists have attempted to quantify the impact recent minimum wage increases have had on employment. Opponents of the minimum wage argue that its negative effect on employment is large and is difficult to detect because some low-wage workers become employed while others become nonemployed following minimum wage hikes. On the other hand, proponents of the minimum wage contend that its impact on employment is small and thus acceptable from a cost-benefit perspective as well as to the American public. In short, most economists agree that the minimum wage reduces employment opportunities for low-wage workers, but they cannot agree on how much moderate minimum wage increases reduce employment opportunities.

A new area of contention centers on what effect minimum wages have had on educational attainment. Recent research by Turner and Neumark and Wascher has produced contradictory findings. Turner contends that minimum wages have no effect on educational attainment,

while Neumark and Wascher argue that minimum wages significantly reduce educational attainment, particularly for minority youth. Because economic theory is ambiguous on how minimum wages affect educational attainment, additional empirical research is needed to answer these important questions.

Another new area of research is the effect minimum wages have on welfare participation. Too little research has been done on this subject for economists or policymakers to reach a consensus. In light of recent welfare reform legislation and proposals to increase the minimum wage, additional research is vital.

Endnotes

1. The remaining 42.9 million workers were found to be not subject to or exempt from the minimum wage. For example, workers not subject to the minimum wage provisions often are employed by businesses with less than $500,000 in annual gross receipts; workers who are exempt most often are in executive, administrative, and professional occupations (U.S. Department of Labor [1998]).

2. Where state law requires a higher minimum wage, that higher standard applies.

3. The 1996 FLSA amendments included provisions for a youth minimum wage. The youth minimum wage provisions maintained the $4.25 minimum wage for employees under 20 years of age during their first 90 consecutive calendar days on the job.

4. Family income is less than 150 percent the poverty level for the appropriate family size.

5. See Deere, Murphy, and Welch (1996, pp. 33–36) for a similar discussion that also incorporates disemployment effects.

6. Spriggs and Klein (1994).

7. See Brown, Gilroy, and Kohen (1982) for a description of a simple supply-demand model that shows higher minimum wages lead to lower employment. This adverse effect may take the form of a lower rate of employment growth rather than an actual decline in the number employed. Or, if employment actually declined, it may take the form of not replacing workers who quit rather than discharging workers. The monopolistic model is a well-known exception where minimum wages increase employment.

8. Unit elasticity between employment and the minimum wage would mean that a 10 percent hike in the minimum wage reduces employment by 10 percent.

9. See Card and Krueger (1995).

10. Most nationally representative surveys (i.e., Current Population Surveys) do not collect labor market information from respondents younger than 16 years old.

11. Since 1970, researchers have conducted more than 30 time-series studies of the effect of the minimum wage in the United States. A typical study relates the employment-population rate of teenagers to a variable indicating the importance of the minimum wage (e.g., the Kaitz index is the coverage-weighted minimum wage relative to the average wage in the industry).

12. Borrowing from the natural sciences, Card and Krueger compared the labor market outcomes of the "treatment" and "control" groups that arise naturally when the minimum wage increases for one group of workers but not for another.

13. Card and Krueger argue that this increase in the minimum wage in New Jersey was particularly appealing as a natural experiment, because whether it would be allowed to take

effect as scheduled under legislation enacted earlier remained uncertain until its effective date.

14. Evans and Turner (1995).

15. Brown et al. (1982).

16. Neumark and Wascher (1996b).

17. In contrast to Neumark and Wascher's findings, Turner (1998) found that minimum wages had a statistically imprecise effect on the employment status of minority teens not enrolled in school.

18. Hashimoto (1982).

19. An increase in the minimum wage results in offsetting effects regarding school enrollment—the substitution and income effects. The substitution effect would cause students to work part-time while enrolled in school or possibly leave school and work full-time because the relative return to work increased. The income effect would cause teens to stay in school or enroll in school because wages and the returns to educational attainment are positively related.

20. The following articles examine the effects of minimum wages on school enrollment status: Turner (1998b); Neumark and Wascher (1992 and 1996b); Evans and Turner (1995); Ehrenberg and Marcus (1982); and Cunningham (1981).

21. Neumark and Wascher (1992 and 1996b) counted teenagers as enrolled only if they reported their *major activity* during the survey week as "going to school." If a student reported his *major activity* as "working," he was not asked about school enrollment and was therefore not classified as enrolled. Research by Evans and Turner (1995), using the October CPS, showed that the Neumark and Wascher measure of school enrollment systematically understates the proportion of teens in school by 7.4 percentage points and understates full-time enrollment by 5.6 percentage points. Notably, the definition of school enrollment affected estimates of whether a higher minimum wage significantly altered teens' school enrollment and employment status.

22. Rosen (1972); Welch (1978); and Neumark and Wascher (1998).

23. Pavetti (1993).

24. The other confounding factors included state average wages, mothers' educational attainment, work history, age, race, number of children, age of youngest child, living arrangements, state Aid to Families with Dependent Children (AFDC) benefit levels, and state unemployment rates.

25. Acs et al. (1998).

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Chapter 5

Job Creation for Low-Wage Workers: An Assessment of Public Service Jobs, Tax Credits, and Empowerment Zones

Burt S. Barnow

Introduction

In the current budget and policy environment, it is more crucial than ever to make sure that low-wage workers are participating in the labor market to the fullest extent possible. Eligibility for some safety net programs, such as Temporary Assistance for Needy Families (TANF), is restricted to five years at most over a lifetime, and other programs such as General Assistance have been cut back severely. The TANF program also includes strict work requirements for participants and for states administering the programs.

There are a variety of approaches that can be used to increase employment by low-wage workers, and the appropriate strategy depends on labor market conditions, policy goals, budget constraints, and the situation of the individual. Broad policy options to increase employment include:

- *Occupational training and education*. Classroom training can be used to provide low-skill workers with additional skills that will help them compete in the labor market. Appropriate training can increase the number of jobs to which a person has access, the wages they can receive, or both. Under some circumstances, the training can also be

provided as on-the-job training by employers. Education is a more general form of training, and educational attainment is highly correlated with earnings.

- *Assessment, counseling, labor market information, and labor exchange services.* The new Workforce Investment Act (WIA) refers to these as "core services," and authorizes their provision to the entire labor force. These services do not enhance the vocational skills of workers or create new jobs, but they should reduce the friction in the labor market, resulting in a better match between workers and jobs and less frictional unemployment.

- *Tax incentives for workers and employers.* Incentives in the form of tax credits can be provided to workers to increase their interest in working and/or to employers to reduce the cost of labor (or other factors) to encourage hiring additional labor. Additionally, the tax incentives can be restricted to workers with particular characteristics (e.g., welfare recipients) and employers that meet specified criteria (e.g., locating in a designated empowerment zone).

- *Public employment programs.* In these programs, the government provides jobs in the public sector or arranges for partially or fully subsidized jobs in the nonprofit sector for eligible persons. The jobs can either be human capital–oriented, where the objective is to increase the work skills of the person, or countercyclical, where the goal is to provide useful work when there are insufficient suitable jobs available in the economy.

The basic approaches listed above differ in terms of how they achieve additional employment for low-wage workers, and their suitability will depend on the cause of the lower-than-desired employment and society's goals. Occupational training and education will lead to increased employment if the trained workers move from a sector with an oversupply of labor to one that can absorb them.[1] The second category of services, providing information to job seekers about themselves and the labor market, can increase employment by reducing search time for jobs. Tax incentives for workers, under certain conditions, can result in some individuals deciding to seek employment rather than remain on welfare or otherwise out of the labor force. Tax incentives for firms can reduce the price of all or certain types of labor, resulting in an increase in demand for labor. Public employment programs can directly lead to job creation if the newly created jobs do not displace or substitute for jobs that would have been filled without the program.

In this paper, the research findings dealing with public employment programs and several types of tax credits are reviewed, including the Earned Income Tax Credit (EITC), the Targeted Jobs Tax Credit (TJTC) and its recently renamed reincarnation the Work Opportunity Tax Credit (WOTC), and geographically targeted tax credits used in empowerment zones and related programs. Job creation, as used here, means creating new jobs, not simply placing people into existing positions. As structurally oriented employment-generating programs, we are interested in evidence on the extent to which the programs increase employment, any undesired effects (such as creating jobs in one area by taking them from adjoining areas), and what the costs are per job created for the target group of interest.[2]

The focus of the paper on job creation and tax credit policies does not necessarily imply there is no utility associated with training and programs intended to reduce labor market fric-

tions. There is currently some debate in the policy community about whether training or labor force attachment programs are more effective for various target groups, but both strategies have been shown to have positive impacts on employment and earnings, at least in the short run.[3] The next section of the paper summarizes the literature on public job programs. The following section discusses tax credits, and the final section presents conclusions. Because public job creation programs are the most likely approach to produce new jobs, more attention is devoted here to that approach. This does not imply that tax credits are not as important, simply that job creation is not generally their central function.

Public Job Creation Programs

Public service employment (PSE) programs in the United States have had a checkered history, and interest in their use for countercyclical and structural purposes has had cycles as well. This section provides a review of the U.S. experience with these programs, emphasizing the use of PSE for disadvantaged groups rather than for the general population.

A public service employment program is defined here as a program where government funds are used to hire individuals with certain characteristics on a temporary, time-limited basis with the goals of providing income maintenance and/or human capital development for the participants and valuable services for the community that would not have been produced in the absence of the program. Although somewhat lengthy, this definition captures the key aspects of PSE programs and distinguishes PSE from related programs with similar means and objectives. The specific aspects of the definition and their implications are discussed below.

Eligibility Requirements. PSE programs are sometimes intended to serve as countercyclical programs, and thus provide employment opportunities to individuals who are unemployed because of business cycle conditions. They have also been used as structural programs, and thus serve individuals in need of additional human capital. Appropriate eligibility requirements for structural programs include such factors as unemployment, income, and receipt of transfer payments. In practice, identifying cyclically unemployed workers who can be helped by the program is not a simple matter, and proxies must be used.[4]

Temporary Positions. PSE jobs are temporary in nature. Time limits can be imposed on the length of time individuals may participate, the length of time that a particular job can exist, or both. Any inclination by the units of government operating the program to use PSE funds to substitute for regular funds will be reduced by limitations on the service of participants or the time the position can be filled.

Salaries. Although the definition of PSE programs used here is restricted to programs that pay a wage, this has been done primarily because unpaid work is generally not classified as employment. Thus, the definition used here excludes "workfare" or community work experience programs (CWEP) operated under the Family Support Act and other welfare programs where welfare recipients were required to "work off their grants" but did not receive salaries for doing so.

Emphasis on Production of Services of Value. This component of the definition is important because it distinguishes PSE programs from public works programs and work experience programs. Public works programs, particularly those operated during the Great Depression of the 1930s, are generally similar to PSE programs in that they are based on the temporary employment of unemployed workers, but unlike PSE programs the primary objective of public works programs is building infrastructure; with that said, defining the precise cutoff between public works and public service employment is somewhat arbitrary, particularly if the state and local governments operating the programs are allowed to supplement the federal funds that are provided.

Employment by Government or a Nonprofit Organization. A PSE program that did not require employment by a government or nonprofit organization would obviously be misnamed. In the traditional Keynesian macroeconomic framework, any expansion in government procurement would generate additional employment, but the program would not be a PSE program.

Production of Services That Would Not Have Been Produced in the Absence of the Program. To have an impact on aggregate employment, a program must lead to an expansion in the government employment beyond what would have occurred in the absence of the program. When program funds are used to substitute for state or local funds that would have been spent in any case, "fiscal substitution" is said to take place.

Public Service Employment and Related Programs in the United States

Direct job creation programs have been used on a limited basis in the U.S. since the Great Depression. These programs have been controversial throughout this period, with the programs often being the butt of jokes and long periods when such programs were not operated. The Job Training Partnership Act (JTPA), the nation's former major federal employment and training program, specifically prohibits PSE. This section reviews the use of such programs, and the next section summarizes the evidence on the effectiveness of PSE and related programs.

During the Great Depression eight major work relief and public works programs were initiated.[5] Under President Hoover, the Reconstruction Finance Administration provided loans to state and local governments for welfare and public employment. Although this program was in operation for less than a year, $300 million was spent on work relief, and at its peak nearly 2 million people were employed through the program. When Franklin Roosevelt assumed office, a number of PSE-like programs were enacted, and as many as 4.3 million workers were employed in PSE-like jobs in the largest program.

There were no significant federal PSE programs between the end of the Great Depression programs and the early 1970s. In fact, there was little government involvement in employment or training programs between 1943 and 1961. Federal involvement in training increased with enactment of the Manpower Development and Training Act (MDTA) of 1962.

The first significant PSE program in recent times was the Public Employment Program (PEP), which was authorized by the Emergency Employment Act of 1971.[6] PEP was a countercyclical program with a two-year life span. Because of the virtual lack of restrictions on eligibility and wages, it was not surprising that the PEP participants resembled the public-sector workforce more than the participants served under MDTA; this is not necessarily an undesirable result for a countercyclical program.

In 1973, the Comprehensive Employment and Training Act (CETA) was enacted. As the title implies, CETA was intended to be a comprehensive program, replacing the numerous categorical programs that existed at the time. The program was intended to replace the training programs provided through MDTA and PSE funded under PEP. CETA reflected President Nixon's strong interest in federalism through block grants and revenue sharing by passing most of the money through to units of state and local government who were to act as "prime sponsors" for the program. The prime sponsors, in turn, funded service providers for training programs and administered the PSE programs.

The original CETA legislation authorized classroom and on-the-job training and work experience under Title I and PSE under Title II. A significant increase in the unemployment rate led to enactment of the Emergency Jobs and Unemployment Assistance Act of 1974, which added a new countercyclical PSE program as Title VI of CETA. In the original CETA, PSE was not the dominant part of CETA that it later became. In FY 1974, for example, $620 million was appropriated for PSE, compared to $1.01 billion for training activities under Title I; by 1978, $4.684 billion was appropriated for PSE, and $1.88 billion was appropriated for the training title.[7]

The CETA program was amended significantly three times over its life.[8] The 1978 amendments had the greatest impact on the PSE programs, but the other amendments also modified the program. The modifications were made to improve targeting and reduce perceived problems with fiscal substitution. Characteristics of the PSE program in the original program and after the amendments are described below.

Eligibility and Targeting. Eligibility for PSE under CETA varied considerably over the life of the program. The major eligibility and targeting requirements have been summarized by Mirengoff et al. (1980), and they are reproduced in table 1. To be eligible for PSE under the original Title II program, an individual had to reside in an area of substantial unemployment (an area having an underemployment rate of at least 6.5 percent) and be either unemployed for at least 30 days or underemployed. Preference was to be given to the most severely disadvantaged in terms of length of unemployment, former training program participants, and Vietnam veterans.

At the end of 1974, Title VI was added to serve as a countercyclical PSE program; the program was originally scheduled to last for only one year until the unemployment rate receded.[9] Eligibility was the same as for Title II except that eligible individuals needed to be unemployed for only 15 days if they resided in an area where the unemployment rate was at least 7 percent. The 1976 amendments added low-income eligibility criteria for some Title VI positions.

Table 1
Eligibility and Targeting in CETA Public Service Employment Programs

Date	Title	Eligibility	Targeting
12/28/73	II (Areas of substantial unemployment)	1. Unemployed for 30 or more days or underemployed.	1. Consideration for the most severely disadvantaged in terms of length of unemployment and prospects for obtaining a job; Vietnam veterans; and former training program participants.
12/31/74	VI (Countercyclical PSE)	2. Unemployed for 30 or more days or underemployed; if unemployment rate 7% or higher, unemployed 15 days or more.	2. Same as 1 above plus UI exhaustees, those ineligible for UI except new entrants, people unemployed at least 15 weeks, and recently separated veterans.
10/01/76	VI (Countercyclical PSE)	3. For half of vacancies in regular positions above June 1976 level, same as in 2 above.	3. For half of vacancies in regular positions above June 1976 level, same as in 2 above.
		4. For the remaining half of regular vacancies and for new project positions: member of low-income family and either received UI for 15 or more weeks, was ineligible for UI and was unemployed for 15 or more weeks, exhausted UI entitlement, or was an AFDC recipient.	4. For the remaining half of regular vacancies and for new project positions: same as in 2 above, plus equitable allocation of jobs among members of low-income families who received UI for 15 or more weeks, were ineligible for UI and were unemployed for 15 or more weeks, exhausted UI entitlement, or were AFDC recipients.
10/27/78	IID (PSE for the economically disadvantaged)	5. Unemployed at least 15 weeks, unemployed at time of determination, and member of low-income family; or member of family receiving AFDC or SSI.	5. Intended for most severely disadvantaged in terms of length of unemployment and prospects for obtaining employment. Consideration to be given to Vietnam-era veterans, public assistance recipients, and groups facing labor market disadvantages, including offenders, persons with limited English proficiency, people with disabilities, women, single parents, displaced homemakers, youth, older workers, dropouts, and others identified by the Secretary.
	VI (Countercyclical PSE)	6. Unemployed 10 of last 12 weeks and unemployed at time of determination; and an AFDC or SSI recipient or a member of a low-income family.	6. Same as in 5 above.

UI = unemployment insurance

Source: William Mirengoff, Lester Rindler, Harry Greenspan, Scott Seablom, and Lois Black. 1980. *The New CETA: Effect on Public Service Employment Programs.* Washington, D.C.: National Academy Press.

In 1978, congressional concern with creaming among the eligible population, enrollment of significant numbers of ineligible participants, and substitution of federal funds for state and local funds led to major amendments to the CETA PSE programs. Eligibility for the structural program, now under Title IID, required unemployment of at least 15 weeks and low family income or receipt of Aid to Families with Dependent Children (AFDC) or Supplemental Security Income (SSI). The countercyclical program now required that participants be unemployed for at least 10 out of the last 12 weeks and unemployed at the time of determination as well as meeting the same income/welfare requirements as Title IID participants. In addition, prime sponsors were required to establish independent monitoring units to ensure compliance, and they were required to repay the federal government for all wages paid to ineligible participants.

Wages and Supplementation. The original 1973 legislation restricted the federal contribution to Title II wages to a maximum of $10,000 per year, but employers were permitted to supplement the wages without limit. The Department of Labor was permitted to make general recommendations to maintain an average annual wage of $7,800. The requirements for Title VI were similar. Amendments passed in 1978 reduced the national average wage for participants entering the program after March 1979 to $7,200. The average for specific areas was indexed to relative wages in the area. The average was adjusted annually for changes in average wages for unsubsidized jobs. Maximum PSE wages were restricted to $10,000 in areas with below-average wages and $12,000 in areas with average wages above the national average. Wage supplementation by employers was prohibited for new Title IID participants, and supplementation for Title VI participants was generally limited to 10 percent of the maximum CETA wage for the area.[10]

Limits on Individual Participation and Job Length. There were no limits on either individual participation or position duration in the original Title II program and the Title VI program added in 1974. In 1976, Title VI was amended to require that all net new positions be funded in special projects that were to last no more than 12 months. Under the 1978 amendments, projects were permitted to last up to 18 months and be extended for an additional 18 months. The amendments also limited individual participation in both Title II-D and Title VI to a maximum of 18 months in a five-year period, but the Department of Labor was permitted to grant waivers for up to 12 additional months to areas with an unemployment rate of at least 7 percent and hardship in finding unsubsidized jobs for participants.

PSE's role as a significant part of federal employment and training programs ended with the enactment of JTPA in 1982. Johnson and Lopez (1997) note, however, that several state and local programs and some demonstration projects have instituted public employment on a limited scale. These programs include youth corps programs operating in 37 states, the AFDC Homemaker–Home Health Aide Demonstrations (which included a short period of training followed by up to a year of subsidized employment), and the New Hope demonstration project in Milwaukee.

Effectiveness of Public Service Employment Programs

The most important criteria for judging PSE in terms of economic impacts are effects on earnings and employment of participants, net job creation, and value of goods and services created.[11] These goals are sometimes at cross purposes. Increasing earnings, for example, generally results from emphasizing human capital development rather than maximizing the value of program output, net job creation, or targeting participation opportunities.

Impact on Participants' Earnings. Estimates of earnings impacts are available primarily for the CETA program. Human capital development was an important PSE concern for part of CETA's history, but certainly not for the entire period. The addition of Title VI as a countercyclical program changed priorities significantly, however: "To encourage rapid implementation, Congress relaxed the requirement that sponsors attempt to find jobs for participants in unsubsidized employment. Placement was to be considered only as a goal that could be waived; indeed, more than 90 percent of all sponsors requested and received waivers."[12]

Several evaluations of the impact of PSE and other CETA activities on earnings were undertaken in the 1980s. All of the studies consider participants who enrolled between 1975 and 1977, which was during the period when job placement was not emphasized; thus, they may yield lower estimates than would be obtained if an earlier or later cohort were analyzed. In addition, the studies used nonexperimental methods, so the estimates may be biased.

Table 2 provides a summary of the earnings impacts of PSE from the CETA evaluations reviewed in Barnow (1987). In general, the studies found moderately positive, statistically significant impacts on earnings for PSE programs. Many of the evaluations found annual impacts of $1,000 or more for women, but the estimates for men were generally lower and often lacked statistical significance. In comparison with other CETA activities, most authors found PSE to have smaller impacts than on-the-job training (OJT), impacts about the same as or slightly larger than classroom training, and greater impacts than work experience.

One possible concern is that PSE was more of a countercyclical program during the period that was evaluated, while any future PSE program is likely to be more structurally oriented. Bassi et al. (1984) looked exclusively at economically disadvantaged individuals, and they found that PSE had an impact over $1,000 for nonwelfare women and both men and women on welfare. They found no statistically significant impact, however, for nonwelfare men.

Finally, it should be kept in mind that increasing earnings was not a goal of PSE during the period being evaluated. As noted above, most prime sponsors obtained waivers from placement goals. In conclusion, it is reasonable to assume that under CETA PSE worked about as well as classroom training in increasing earnings, even when that was not an explicit goal of the program.

Job Creation Effects. The job creation goal is most important when PSE is used as a countercyclical program, where the primary goal is to add jobs to the economy.[13] Job creation is still important in a structural PSE program because if the program is not creating additional jobs, then other workers are being displaced. Additionally, if there is no job creation, the fed-

Table 2
The Impact of CETA Public Service Employment on Earnings for Various Groups

	Overall	White Women	White Men	Minority Women	Minority Men	Women	Men
Westat (1981)	$250*	$950*	$100	$650*	($50)	—	—
Westat (1984) FY 76	117	—	—	—	—	—	—
Westat (1984) FY 77	654*	—	—	—	—	—	—
Bassi (1983)	—	614*-701*	—	259-815*	(213)-(23)	—	—
Bassi et al. (1984) nonwelfare disadvantaged adults	—	1,049*-1,229*	302-303	1,605*-1,623*	8-161	—	—
Bassi et al. (1984) welfare	—	1,558*-1,563*	1,218*-1,307*	1,648*-1,673*	(32)-274	—	—
Bassi et al. (1984) youth	—	882*-990*	(180)-(81)	1,125*-1,196*	(396)-(314)	—	—
Dickinson, Johnson, West (1984) adults	—	—	—	—	—	$464*	($836)*
Dickinson, Johnson, West (1984) youth	—	—	—	—	—	52	(403)
Geraci (1984)	—	—	—	—	—	1,121*	(217)

* Statistically significant impact.
Source: Burt S. Barnow, "The Impact of CETA Programs on Earnings: A Review of the Literature." *The Journal of Human Resources.* Spring (1987).

eral government is paying for existing state and local services, which may be more appropriate under revenue sharing than a PSE program.[14]

Evaluations of the job creation effects of PSE programs have involved both the use of econometric models of government employment and field surveys of state and local governments. In the econometric modeling approach, researchers develop equations to predict state and local government employment (or the wage bill) and then determine the impact PSE slots have on the number of regular employees. A study by Johnson and Tomola (1977) concluded that although there was no substitution in the first 3 months of funding CETA PSE positions, by the end of 18 months the PSE funds substituted for regular state and local funding so that no jobs were created by the program. Using similar models, Mirengoff and Rindler (1978) found that over the first 10 months of funding in the CETA PSE program, an average of 65 percent of the positions funded represented net new employment. Later work by Bassi and Fechter (1979) also found substantial substitution, although Bassi and Fechter were less sanguine about their point estimates. Cook et al. (1985) found that each dollar of PSE funding led to an increase in state and local expenditures on salaries and wages of $.28 in 1977 and over $.76 to $.78 in 1978 and 1979 when the eligibility rules were modified to restrict the program to the economically disadvantaged.[15]

The fragility of the underlying econometric models was illustrated by Borus and Hamermesh (1978). In reanalyzing Johnson and Tomola's data, they found that by making reasonable alternative assumptions they could obtain estimates of substitution ranging from 0 to 100 percent. Borus and Hamermesh concluded that the data and models available to use are simply too crude to reliably estimate the substitution effects of the CETA PSE program.

The alternative to estimating quantitative models is to have researchers conduct field studies and record how much net job creation results from PSE funds. The utility of this approach depends on the ability of the field researchers to accurately assess what would have happened in the absence of PSE funding. A major field evaluation of PSE was carried out in 40 sites selected to be representative of the national program; the research was conducted in four rounds between 1977 and 1980.[16]

This study found that between 80 and 90 percent of all PSE positions funded in the sites studied constituted job creation rather than job displacement. A controversial aspect of the findings was that a significant portion of the job creation was "program maintenance," defined as "cases in which PSE employees were used to maintain existing services that would have been curtailed without PSE funding."[17] The researchers concluded that displacement would have been higher in later years had the restrictions on wages, eligibility, tenure, and projects not been added. They found that displacement was highest in rural areas (31 percent), but not especially high in large distressed cities (18 percent), where the researchers classified many of the PSE positions as program maintenance.

It is difficult to reach a firm conclusion about the level of displacement that occurred in the CETA PSE program.[18] Some observers have found the field study estimates of 10 to 20 percent substitution lack credibility, but the quantitative estimates follow no consistent pattern, so they are not of much help. On the other hand, later studies indicate that CETA amendments added to reduce displacement by increasing targeting of participants more toward the eco-

nomically disadvantaged, reducing wages, limiting participation time of individuals, and requiring positions to be used in special projects of limited duration all were successful in reducing the problem.[19]

Value of Output. Unlike classroom training programs, PSE programs are frequently judged in part on the basis of the value of the output produced by participants. In this section, studies on the value of output produced in PSE and related programs are discussed. There have been no general evaluations of the value of the output in CETA programs, so we must rely on studies of other programs and special PSE programs.

A fundamental problem in assessing the value of output from government programs is that there is no market mechanism to assign a value to the output. Usually the programs are used to produce services rather than goods, and the outputs are usually not sold in a free market. Thus, we cannot observe the "value" of the output as economists would usually use that term. Instead, researchers can observe or estimate potential proxies such as what the cost would be of producing the output from the PSE program (referred to as supply-side estimates) by using regular government workers or private-sector workers, and what society would be willing to pay for the output (demand-side estimates). While imprecise, such measures can provide some reassurance that the projects are not simply "makework."

The National Supported Work Demonstration was conducted between 1975 and 1979 to test the utility of providing selected target groups—disadvantaged out-of-school youth, ex-offenders, former substance abusers, and AFDC recipients—with work experience under conditions of graduated stress to increase their employment and earnings.[20] The cost-benefit analysis for the evaluation used the costs for alternative suppliers to estimate the value of the output produced by participants during their enrollment.[21] The value of output per participant ranged from $2,973 for ex-offenders to $4,520 for AFDC recipients. Although these values were close to the wages paid to the participants, the projects also involved substantial costs for material and overhead. From the perspective of society as a whole, the researchers found that the value of the output defrayed between one-half and two-thirds of the costs of the project, depending on the target group.

The Youth Incentive Entitlement Pilot Projects (YIEPP) demonstration was a large-scale intervention that determined the feasibility, costs, and impacts of guaranteeing part-time school-year jobs and full-time summer jobs to all youth who remained in high school or returned to school in the 17 program sites.[22] Participating youth were assigned to public-sector or private-sector jobs for their work experience. Although a formal analysis of the value of output produced was not undertaken, a random sample of 250 projects were visited to assess the quality of the work being performed by YIEPP participants. The researchers concluded that "the quality of work in the demonstration was, on the whole, adequate or better, with some 86 percent of the worksites falling into this category."[23] A comparison of youth performance in public-sector, nonprofit-sector, and private-sector YIEPP jobs indicated that performance was more similar than different across sectors.

The final and most relevant value of output study relates to the Employment Opportunity Pilot Projects (EOPP) to test job search assistance and subsidized employment and training activities to welfare recipients and other low-income employable adults. An important aspect

of the program involved placing participants who could not find a job on their own into PSE positions or training programs through the CETA program. EOPP participants in PSE positions were highly disadvantaged in the labor market—over 98 percent were eligible for CETA, 73.5 percent were receiving AFDC, 38 percent had less than a high school education, 82 percent were women, and 65 percent were members of minority groups.[24]

A review of 68 EOPP PSE projects found them to be quite successful from a value-of-output perspective:

> With respect to the relative productivity measures, participants were, on average, about 77 percent as productive as the alternative suppliers in terms of the number of production (nonsupervisory) hours alone. If the need for supervision is taken into account, however, the productivity ratio falls to about 73 percent. These measures show that, although EOPP participants produced, on average, at a rate consistent with the minimum wage, they were only about three-fourths as productive as the workers who would normally perform the work—workers whose wages were, on average, well above the minimum wage. (Whitebread 1983, p. 77.)

Thus, the experience from the EOPP demonstration indicates that economically disadvantaged participants were not quite as productive as regular government workers, but their low wages compensated for their lower productivity.

In summary, previous research indicates that PSE workers are generally slightly less productive than unsubsidized workers, but the lower wages they receive partially or fully offset this lower productivity. Although the estimates are admittedly crude, studies from work relief programs during the Great Depression and more recently from CETA PSE programs found workers in subsidized employment programs to be between 70 and 80 percent as productive as unsubsidized workers. The productivity findings are not limited to highly qualified workers hired in some of the early CETA countercyclical projects. Programs targeted on disadvantaged youth, AFDC recipients, and other disadvantaged workers all found such workers to be highly productive.

What of the frequent allegations of fraud and waste in CETA programs? Mucciaroni (1990) repeats some of the more intriguing stories reported in *Time,* the *Reader's Digest,* and other sources.[25] He also notes that the problems included CETA training programs as well as PSE and that the prevalence of such incidents may have been exaggerated in the press.[26]

Conclusions on the Effectiveness of PSE Programs. This review of the literature focused on how well PSE programs have performed along three dimensions: increasing human capital, net job creation, and value of output. On two of these yardsticks, PSE has performed fairly well—certainly better than its reputation would lead one to believe. The consensus from evaluations of CETA PSE is that it increased participant earnings by several hundred dollars per year for women, at least initially. Regarding net job creation, the evidence is mixed and inconclusive. PSE programs have generally been given high marks in terms of the value of their output. Evaluations that have been conducted have generally found PSE participants to be about 75 percent as effective as regular employees. By producing output of value, a PSE program's

net costs are significantly reduced, thus adding to the attractiveness of such a program for specific target groups.

Tax Incentive Programs

In this section the literature on the job creation potential of tax credits is reviewed. As noted above, the focus of the paper is on direct job creation programs, so the review presented here is brief.

Earned Income Tax Credit

The Earned Income Tax Credit (EITC) is a wage subsidy program that began modestly in 1975 but has increased in recent years to be the largest cash-transfer program for nonelderly low-income families.[27] The program seeks to encourage labor force participation by "making work pay" for potential low-wage workers. The program has increased in generosity since 1975, with the maximum benefit increasing from $400 in 1975 to $3,656 in 1997 for a family with two children. The size of the benefit varies by the number of children, but the benefits are quite small for families without children. Attention in this paper is restricted to EITC's job creation potential, but the program also plays a significant role in reducing poverty.

The structure of the EITC is straightforward. In 1997, for a family with two children, the first $9,140 of earnings entitles the family to a refundable tax credit of 40 percent of earnings for a maximum credit of $3,656. The credit remains at $3,656 until earnings reach $11,950. The credit is then reduced by 21 percent of all earnings above $11,950 until the credit is phased out entirely at earnings of $29,290.

The EITC has no direct effect on the number of jobs available in the economy. Instead, it can create employment by inducing individuals to work who would have remained out of the labor force in the absence of the EITC. For a single-parent family, the labor supply effects of the EITC vary depending on how much the person would have earned without the EITC. For individuals out of the labor force or in the phase-in range (where the wage rate is increased), the higher post-EITC wage rate provides an incentive to work, but the extra income generated by the credit could reduce hours of work; thus, the overall effect of the credit for those with very low earnings is ambiguous. For individuals who would receive the maximum credit, there is no wage increase for additional hours worked and economic theory predicts that the extra income from the tax credit would lead to a reduction in hours. For individuals in the phase-out range, where the credit is reduced for each dollar earned, the EITC actually reduces the after-tax wage even though the family still receives some income from the credit; for families in this range, economic theory predicts a decrease in labor supply. Overall, for a single-parent family, economic theory suggests that some individuals would enter the labor market, but some of those already working would be expected to reduce their hours. The situation is more complex for two-parent families, and it is difficult to make predictions on how labor supply will be affected by the EITC.

Caution must be exercised in interpreting the findings. Evaluations of the EITC require strong assumptions about what factors lead to changes in labor market behavior over an extended period where the EITC changes. Studies generally make use of families without children as a "control group" to purge time trends of factors that affect all potential workers. In addition, comparing findings across studies is difficult because the studies vary in terms of the time period studied, the aspects of the EITC studied, and the estimating methods. Nonetheless, many of the recent studies show a consistent pattern of EITC effects.

A study that conducted simulations to estimate the impact of the 1993 round of EITC increases on labor supply concluded that the 1993 expansion of the EITC would lead to an increase of 3.3 percentage points in the proportion of single parents working. For married couples, they projected that primary earners would increase labor supply by .7 percentage points and that secondary earners would decrease their labor supply, but they could not accurately project by how much.[28]

Another study examined the effects of the 1987 expansion of the EITC on the labor supply of single women with children in 1991.[29] The authors used several years of Current Population Survey (CPS) data before and after the change and data on single women without children as a control group to eliminate other factors that may have affected labor supply. They concluded that the 1987 changes in the EITC increased labor force participation for single women with children by 2.8 percentage points, from 73.0 to 75.8 percent. The authors also analyzed the impact of the 1987 changes on hours worked for those already in the labor force and, contrary to what theory predicts, they found no impact on hours worked by single women with children.

An evaluation of the impact of the EITC on married couples found that because married couples tend to have more income than single-parent families, 70 percent of the EITC recipients have pre-tax income that puts them in the range where the EITC is at its maximum or is declining and the incentive is for less work.[30] The researchers discuss the complexities involved in modeling the labor force behavior of two-adult units, and they analyze the data several ways to account for the difficulties. In one analysis, they find that the EITC increases labor force participation by .9 percentage point for men and decreases participation by 3.1 points for women in married couples with children. They also perform some simulations, and in those analyses they find smaller effects—an increase of .1 percentage point for men and a decrease of .5 point for women.

A complex study examined the impact of EITC, along with changes in the Aid to Families with Dependent Children (AFDC) program, Medicaid, child care, and job training on the labor supply of single mothers over the 1984 to 1996 period and the 1992 to 1996 period.[31] They conclude that the EITC accounts for 52 percent of the increase in weekly labor force participation between 1984 and 1996 and 70 percent of the increase in annual labor force participation over this period. To put these figures in perspective, the labor force participation rate for single mothers increased by 8 percentage points between 1984 and 1996, from 73 to 81 percent. Since the EITC was responsible for 70 percent of this increase, the EITC is estimated to have increased the labor force participation rate by 5.6 percentage points over this period.

In summary, the EITC appears to have been effective in increasing labor market participation among single mothers. In addition to increasing labor force participation among the poor, the EITC helps provide income to poor children, and the program is extremely popular across the political spectrum.[32] The major problems with the EITC are that it provides work disincentives to married couples and to some single parents. In addition, the refundable nature of the credit creates potential for fraud.[33] Finally, it is important to recognize that unlike public service jobs, EITC cannot create new jobs. Thus, it is not an appropriate tool to use if the underlying problem is too little aggregate demand.

Targeted Employment Tax Credits

Targeted employment tax credits provide tax incentives to employers who hire workers with particular characteristics. Targeted tax credits have the potential to create jobs because they lower the price of labor to the firm. The reduction in the price of the labor factor can lead firms to substitute labor for capital, thus creating new jobs. In addition, the lower cost of labor can lead to lower output prices, which in turn stimulate demand for the product and the labor to produce it. Although targeted tax credits sound appealing in theory, they sometimes fail to provide the results anticipated because of factors such as perceived red tape in applying for the credits, stigma for the target groups from being identified, and fear by employers of government audits. In addition, the credits may go to employers who would have hired the workers without the credit, resulting in windfalls to employers and some loss of revenue to the government without a commensurate benefit.

The most recent general targeted employment tax credit is the Work Opportunity Tax Credit (WOTC), which has been in effect since October 1, 1997. WOTC applies to workers hired during the relevant period who were in one of eight target groups.[34] The WOTC offered employers a tax credit of 40 percent of qualified wages for the first year of employment, where qualified wages are capped at $6,000 for all target groups except summer youth, whose wages are capped at $3,000. New hires who work 120 to 400 hours per year entitle the employer to a credit of 25 percent of qualified wages.

The Targeted Jobs Tax Credit (TJTC) was the predecessor to WOTC. TJTC was modified and expired several times since its inception in 1978, but for the most part it was similar in structure to WOTC. An evaluation of TJTC based on a survey of over 3,500 employers estimated that each new TJTC hire generated between .13 and .3 new jobs, although they placed more faith in the lower estimate.[35] They also concluded that at least 70 percent of the tax credits paid to employers were for workers who would have been hired without the subsidy.

Earlier studies of the TJTC yielded mixed results.[36] A study of TJTC in two states concluded that "TJTC had only modest short-run positive earnings impacts on a small segment of the eligible population."[37] One evaluation of TJTC that made use of an experimental design found that individuals who promoted their eligibility for TJTC were *less* likely to find employment than the control group, which was similar in characteristics but did not call attention to TJTC eligibility. The conclusion was that advertising one's TJTC eligibility actually creates stigma that more than offsets the financial advantages of the tax credit.[38]

In sum, although targeted tax credits have been popular in some quarters, the evaluation literature indicates that targeted employment tax credits have not been nearly as effective as the EITC in promoting employment.

Empowerment Zone/Enterprise Zone Tax Credits

Empowerment zones or enterprise zones are geographical areas where special incentives have been instituted to encourage job growth and economic development. The most recent comprehensive review of U.S. and English experiences with enterprise zone programs as well as other programs that provide financial incentives in targeted areas reviews evidence on evaluations covering enterprise zone programs in England, Maryland, Indiana, and New Jersey.[39] The English program was designed to stimulate investment in the target area, and the incentives were provided by reducing or eliminating three business taxes. The studies reviewed indicate that the primary effect of the enterprise zones was to relocate economic activity from near the zones to within the zones at an average annual cost per job generated by the English program of about $60,000.

The Maryland program reviewed offered firms investment tax credits and employment tax credits for hiring disadvantaged workers within the zone. The U.S. General Accounting Office evaluation of the program found that the enterprise zone designation did not lead to any increase in jobs within the three enterprise zones studied. The Indiana enterprise zone program includes a number of business and employment tax incentives, but the most significant financial component in the package (about 85 percent) is the elimination of a property tax on inventories. The evaluations of Indiana's programs produced mixed results, but "on balance, the [Indiana enterprise] zones seem to have had little positive impact on the economic well-being of their residents." Ladd also presents a summary of an evaluation of the New Jersey enterprise zone program. That evaluation does show a positive impact of the programs, but Ladd is skeptical of the findings because of shortcomings in the evaluation.

Overall, Ladd concludes that as implemented in England and the U.S., enterprise zones have not been a cost-effective means of generating jobs. Her only note of optimism is that the empowerment zones implemented in the U.S. in 1993 place more emphasis on community building and are larger in size than the programs she evaluated, so they might be more effective.

Conclusions and Policy Implications

In this paper, the evidence on several approaches to employment generation has been reviewed. In spite of their reputation from the alleged abuses that took place during CETA, public job creation programs appear to be a successful means of generating new jobs for low-skill workers. For such programs to work, however, care must be taken to keep the scale modest and the jobs attractive to both the workers and the employing organizations. The Earned Income Tax Credit is an effective tool for increasing employment of single-parent families, but the evidence is more ambiguous for two-parent families. The EITC does not create new jobs

as a public employment program does, but instead provides incentives for low-skill individuals to work; the EITC is also an important means of reducing poverty among the working low-skill population. The literature on programs that affect employer tax liabilities, both individually targeted programs and geographically targeted programs, indicates that, although such programs often sound good in theory, in practice they are characterized by windfalls to employers with little employment generation.

These research findings have several implications for policy. If there is insufficient demand for low-skill workers, a carefully designed public employment program can be used to increase employment. Earned income tax credits, on the other hand, can provide an effective means of increasing the supply of the low-skill segment of the population and can help make work pay without increasing wage costs to employers. The evidence to date offers little support for using employer tax credits to increase employment. There is scant evidence supporting the efficacy of tax credits, such as the Targeted Jobs Tax Credit and the Work Opportunity Tax Credit, that offer employers a credit for hiring workers with certain characteristics. As Ladd speculates, the current form of empowerment zones in the U.S. may generate additional employment, but there is no evidence yet that this has occurred, and prior versions have proven very ineffective.

Endnotes

1. Training may be desirable even if it does not result in increased employment if it improves the distribution of employment.

2. Baily and Tobin (1978) refer to this as "bang per buck."

3. For a summary of work on education and training, see Fishman et al. (1998). They concur with the findings of researchers at the Manpower Demonstration Research Corporation that the most effective strategies (at least for welfare recipients) are programs that emphasize job placements with provision of short-term training when necessary. Plimpton and Nightingale (forthcoming) conclude that long-term training is a superior strategy.

4. For a discussion of the difficulties in distinguishing structurally unemployed individuals from those who are cyclically unemployed, see Lerman, Barnow, and Moss (1979). The U.S. Department of Labor is developing predictors of which unemployed workers are most likely to benefit from its training programs (referred to as worker profiling).

5. See Kesselman (1978) for a detailed history and analysis of programs during the Great Depression. The material in the text on these programs is based on Kesselman's work.

6. See Mucciaroni (1990), Franklin and Ripley (1984), and Cook et al. (1985) for a discussion of PEP. Information on the PEP in this section is based primarily on material in Cook et al. (1985).

7. Because PSE positions are more costly per unit of time and generally last longer than training positions, the discrepancy in the number of participants is greater.

8. The Emergency Jobs and Unemployment Assistance Act of 1974 added the Title VI countercyclical PSE program, 1976 amendments tightened requirements for PSE positions, the Youth Employment and Demonstration Projects Act (YEDPA) of 1977 established three special youth training and work experience programs—Youth Employment and Training Programs (YETP), Youth Community Conservation and Improvement Projects (YCCIP), and the Youth Incentive Entitlement Pilot Projects (YIEPP). The Skills Training Improvement Program (STIP) was added to Title III of CETA in 1977 to serve dislocated workers, the Help through Industry Retraining and Employment (HIRE) was added in 1977 and modified in 1978 to train veterans, and the 1978 reauthorization added the Private Sector Initiative Program (PSIP) as Title VII of CETA to increase private-sector participation in CETA training programs and the Young Adult Conservation Corps (YACC) as Title VIII to provide conservation work experience for youth. See Franklin and Ripley (1984, p. 21) and Cook et al. (1985).

9. See Mirengoff and Rindler (1978).

10. In the few areas where the average wages for regular jobs were more than 25 percent above the national average, CETA PSE wages could be supplemented by 20 percent.

Wages after supplementation could be as high as $11,000 in areas where wages were below average, between $11,000 and $13,200 in most higher-wage areas, and as high as $14,400 in a few areas with the highest wages. See Mirengoff et al. (1980, p. 78) for details.

11. Other outcomes of interest include serving target groups of interest and creating a local service delivery capacity. Providing opportunities to groups of interest has been suggested by many analysts; see, for example, Mirengoff et al. (1980). Franklin and Ripley (1984, p. 188) specifically cite the development of local delivery capacity as an important legacy of CETA. For a discussion of other outcomes of interest in employment and training programs, see Barnow (1989).

12. Mirengoff and Rindler (1978, p. 160).

13. This paper will not address second-round "multiplier" effects of job creation programs.

14. Note that a program might be considered successful if it provides employment opportunities to economically disadvantaged individuals who would otherwise not have such opportunities. See Gottschalk (1983) and Barnow (1989).

15. See also Adams, Cook, and Maurice (1983).

16. See Nathan et al. (1981) and Cook et al. (1985) for descriptions of the studies.

17. Cook et al. (1985).

18. Another concern is that jobs programs sometimes displace private-sector employment. If PSE positions pay more than comparable private-sector jobs, workers may remain in PSE positions rather than take private-sector jobs.

19. Cook et al. (1985) and Mirengoff et al. (1980).

20. See Manpower Demonstration Research Corporation Board of Directors (1984) for a summary of the supported work program and key findings from the demonstration.

21. Kemper et al. (1981).

22. See Diaz et al. (1982).

23. Diaz et al. (1982).

24. These figures appear to include participants assigned to on-the-job training in the private sector, but the OJT participants are a minority of the sample.

25. Some of the more notorious examples cited include a "nude sculpting workshop" and hiring a former Black Panther leader to "keep an eye on the city."

26. Mucciaroni (1990, p. 185) summarizes CETA's problems as follows: "The CETA story is one not so much about the failure of a program as it is about the failure of a set of political institutions. It should not be confused with the notion that CETA failed to achieve,

to one degree or another, several of its substantive objectives. While few of its programs were undisputed and overwhelming successes, few were abject failures."

27. See Eissa and Hoynes (1998).

28. Dickert, Houser, and Scholz (1995).

29. Eissa and Liebman (1996).

30. Eissa and Hoynes (1998).

31. Meyer and Rosenbaum (1998). A strong point of Meyer and Rosenbaum's work is that they explicitly control for more factors that could change labor force participation than the other studies.

32. Greenstein and Shapiro (1998).

33. Greenstein and Shapiro (1998) acknowledge that the error rates associated with EITC are a concern, but they conclude that recent legislative and administrative actions have led to reductions in the error rate and should lead to further reductions.

34. The WOTC target groups were (1) members of families that received AFDC or TANF for at least 9 of the 18 months preceding the month of hire; (2) individuals 18 to 24 years old who were members of families receiving food stamps for at least 6 consecutive months prior to the date of hire or for at least 3 of the 5 months before the date of hire and their food stamp eligibility expired; (3) veterans who were a member of a family that received food stamps for at least three consecutive months during the 15 months before the date of hire; (4) disabled individuals who completed rehabilitative services approved by a state or the U.S. Department of Veterans Affairs; (5) residents of one of the 105 federally designated urban or rural empowerment zones or enterprise communities who were 18 to 24 years old; (6) residents of empowerment zones or enterprise zones ages 16 or 17 hired as summer youth employees; (7) ex-felons who were members of a low-income family; and (8) recipients of Supplemental Security Income (SSI).

35. Bishop and Montgomery (1993).

36. Barnow, Chasanov, and Pande (1990) review evaluations of other tax credits, including the new jobs tax credit, the research and development tax credit, and the investment tax credit. They conclude that, although these credits sometimes have modest effects on the outcome of interest, they are generally inefficient policies because they produce large windfalls to firms that would have undertaken the actions subsidized without a tax credit.

37. Lorenz (1988).

38. Burtless (1985).

39. Ladd (1994).

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Section III

Barriers to Entering the Low-Wage Labor Market

Chapter 6

Mismatch in the Low-Wage Labor Market: Job Hiring Perspective

Harry J. Holzer

Introduction

In a very tight labor market, such as the one experienced by the United States during the mid- to late 1990s, there seem to be ample numbers of jobs available for workers who want them. Yet, while there is no shortage of jobs facing workers in the aggregate, there may be some workers with very poor skills and other labor market problems that prevent them from becoming easily employed, especially in the short term.

As welfare recipients and other unskilled workers enter the low-wage labor market, many for the first time, what characteristics and behaviors of employers will they encounter? Will workers have the skills and personal characteristics that employers seek? Will some face discrimination due to their race or gender? Will they experience other difficulties gaining access to certain jobs, such as those located in distant suburbs, because of problems with transportation and information? What are the implications of these difficulties for their employment/earnings prospects, and what policies might be needed to overcome these problems?

This paper considers some evidence on the characteristics of the demand side of the labor market that unskilled workers face, and on the potential mismatches that might result because their own characteristics are not those sought by employers. It then considers the implications of this evidence for a variety of policy approaches.

What Is Mismatch?

The issues described above are generally associated with the problems of labor market "mismatch," or imbalances, between the characteristics and behaviors of employers and jobs on the *demand* side of the labor market and those of workers on the *supply* side.[1] Mismatches in the labor market can occur along a variety of dimensions, such as skills, geographic location (i.e., "spatial mismatch"), and even race. They often develop as a result of two factors: (1) labor demand "shifts" away from unskilled workers, or those located in inner-city neighborhoods, for a variety of reasons (e.g., technological change, immigration, and international trade or high crime rates and taxes in the city); and (2) adjustments occur too slowly by specific groups on the supply side of the market in response to these changes.

When demand shifts occur in labor markets, they create incentives for workers to make a variety of adjustments. For instance, a shift in demand toward more highly skilled labor increases the gap in wages between more-educated and less-educated workers, which should induce more workers to enroll in school and achieve higher educational levels (as emphasized in the "human capital" model). Similarly, when employers relocate from central city to suburban areas, workers can adjust either by moving to these areas or by commuting to jobs located there.

But some of these adjustments take many years, and particular groups might face high costs or other barriers in making the adjustments. For instance, young people from families with very low incomes might not be able to afford additional schooling or, because of the poor quality of schools in their neighborhoods, might not have the academic skills to pursue it. Inner-city minorities, especially African Americans, might be constrained from moving to the suburbs by housing market discrimination or high residential costs (where the latter might partially result from exclusionary zoning practices); and they might not commute to these areas because of lack of automobile ownership and difficulties with public transit, as well as a lack of information or support networks in these areas. Such "mismatch" problems might be exacerbated by discrimination among employers, which some economists had once assumed would disappear in competitive labor and product markets, but which actually appear to persist over time.[2]

Taken together, these labor market factors could result in low wages and/or employment for minorities and other unskilled workers over extended periods of time. An imbalance between supply and demand in the labor market should result only in lower wages for the disadvantaged group if wages are flexible and markets are generally in "equilibrium." But if labor market rigidities (caused, for example, by legal minimum wages or employer wage policies) keep wages from adjusting, or if the disadvantaged workers choose to "queue" for the higher-wage jobs rather than accept lower-wage ones, then mismatches could result in high unemployment rates for these groups as well. Even in equilibrium, low market wages might result in labor market withdrawals and high rates of *non*employment (rather than unemployment) for the disadvantaged group.

Employer Skill Needs and Potential "Mismatches"

Even in jobs that require relatively little in the way of formal education or credentials, employers often seek a variety of basic skills in their job applicants, and a set of personal characteristics that they think reflect those skills.[3] The skills and characteristics generally sought by these employers can be summarized as follows:

- Job readiness
- Social/verbal skills
- Basic cognitive skills
- Job-specific skills

Job Readiness. Given that poor work performance and employee turnover can be costly to employers (because they have to take time and spend resources recruiting and screening job applicants to replace poor workers), most want some indication that job applicants will meet at least minimal standards of performance before they are hired. These standards include showing up for work each day on time (i.e., minimal tardiness and absenteeism), having a good "attitude" or work ethic, willingness and ability to follow instructions, etc. Employers tend to judge this characteristic by looking for some stable work history and references, by avoiding those who might have substance abuse problems or criminal backgrounds, and through their own judgment of the applicant's character in an interview. Of course, employer abilities to judge job readiness from these factors might not be as strong as they think, and subjective impressions could well lead to discriminatory outcomes in some cases. For instance, roughly half of employers claim that they would not hire someone without stable work experience into noncollege jobs, and roughly two-thirds would not hire someone with a criminal record. Yet, only 35 to 40 percent use drug tests or check criminal records more formally. This suggests that some employers try to infer criminal activity and incarceration from other factors, such as gaps in an applicant's schooling and work history. The limited predictive power of employer interviews with respect to subsequent job performance has been well documented in the human resources/personnel literature.

Social/Verbal Skills. For jobs such as those in the clerical, sales, and service areas that involve a substantial amount of contact with customers (either in person or over the phone), employers seek at least a minimal level of social or verbal skill. These may also be needed where workers must interact with each other, in "teams" or the like. Over 70 percent of newly filled noncollege jobs currently involve some daily contact with customers, and a comparable percentage are in the clerical, sales, and service categories.

Basic Cognitive Skills. Most jobs that employers are currently trying to fill, even when they do not require college degrees or other evidence of skill, involve the need to perform elementary arithmetic calculations, read (or even write) paragraph-length material, and/or use a computer on a daily basis. Each of these tasks is performed daily in 50 to 70 percent of all recently filled noncollege jobs. Indeed, only about 10 to 15 percent of all newly filled jobs require

none of these tasks. Employers seek evidence of ability to perform these functions from whether (and where) the applicant has attained a high school diploma, from other jobs that they have performed, and even sometimes from their ability to fill out a written job application without serious misspellings. High school diplomas (or GEDs) are considered "absolutely necessary" or "strongly preferred" in about three-fourths of all noncollege jobs. Yet employers do not necessarily believe that these signals indicate much about cognitive ability, especially when the diploma has been attained at an inner-city high school.[4] In general, employers seem to regard high school diplomas as minimally "necessary" but not "sufficient" to prove basic cognitive ability.

Job-Specific Skills. Skills that are somewhat specific to the job in question are needed in many cases as well. These are generally measured by whether candidates have any experience or training in that particular line of work. Employers might also administer job-related tests, such as those for typing ability. Specific previous experience is necessary or strongly preferred in about 65 percent of noncollege jobs; about 40 percent also require previous training or skill certification, and tests are administered in about half.

Summary: Demand vs. Supply of Skills among the Disadvantaged

While most of the required skills described above are fairly minimal, they may be beyond what many workers bring to the low-skilled labor market. For instance, some research reports that over 60 percent of long-term welfare recipients lack high school diplomas or GEDs.[5] Most are concentrated in the bottom 20 to 25 percent of the U.S. distribution of test scores, and a majority of those with very limited work experience over many years are concentrated in the bottom 10 percent.[6] Significant fractions also report disability or substance abuse problems. Indeed, it is frequently estimated that 30 percent or more of current or recent welfare recipients may not meet the most basic job readiness or skill requirements for employment.[7] Among unskilled and African American young males in particular, skill problems are compounded by the pervasiveness of criminal records. For instance, at least a third of all young black men between the ages of 16 and 34 have some type of criminal record; and this fraction rises to over 60 percent among young black men who are high school dropouts.[8]

Of course, a small number of jobs with minimal or no skill requirements (beyond those of job readiness) might be sufficient to absorb the relatively small number of workers who lack those skills, but there remains considerable uncertainty about whether this is true. Some recent evidence[9] suggests that there may not be enough of these jobs in the short run for all those who might want or need them, particularly when labor markets are not as tight as they are currently.

Also, more jobs can be created over the longer term in response to increases in labor supply, but these will require even further declines in wages among very unskilled workers. And, to the extent that such jobs are available to workers who want them, the problems of high turnover and very low wages/benefits will almost certainly plague these employees.[10]

Racial Discrimination

Does racial discrimination continue to limit the employment opportunities available to minorities? This has been a controversial issue in economics. Statistical evidence of racial disparities in employment outcomes across groups does not necessarily imply that some groups face discrimination, since there are many other personal characteristics and preferences of workers that are correlated with race. Recent evidence suggests that, when we net out racial differences in educational attainment and/or cognitive ability (such as test scores), there remains little difference in wages between whites and blacks[11] or between whites and Mexican Americans.[12] Of course, discrimination in housing markets or unequal funding of school districts could help to generate differences between groups in average educational attainment or quality.

Wage vs. Employment Effects

Furthermore, it would be incorrect to conclude that labor market discrimination is no longer a factor for minorities, especially blacks. For one thing, the evidence cited above is based on hourly or weekly *wages* rather than *employment rates;* major racial differences in the latter still can be found even after netting out these differences in skills. For instance, Neal and Johnson report that significant racial differences in *annual* earnings, which reflect employment rates over the year as well as wages, remain even after controlling for test score differences.

These findings are consistent with the recent results of "audit" studies in the labor market, in which matched pairs of white and black job applicants with equal credentials are sent out to apply for advertised jobs. These studies generally show that white applicants are more likely than equally qualified blacks to receive job offers.[13] This evidence is also supported by ethnographic studies of employers,[14] which reveal that very negative perceptions of African American workers are held by many employers.[15]

The fact that discrimination may persist in employment but not in wages could also result partially from how Equal Employment Opportunity (or EEO) laws are administered in the U.S. Most EEO cases currently involve charges relating to discharges or promotions, rather than hiring activity.[16] Employers might therefore face a higher probability of lawsuits when they do hire minorities than when they do not, which might then lower their willingness to hire from these groups.[17]

Differences in Discrimination by Sector and Minority Group

Recent evidence from studies of employers also suggests that hiring discrimination against blacks is much more severe at some kinds of firms than others. For instance, black applicants are much more likely to be hired at large establishments than at smaller ones, and they are less likely to be hired in jobs involving contact with white customers.[18] The latter may be part of a larger pattern of greater discrimination against blacks at suburban than central-city establishments. The evidence also suggests that hiring discrimination is more severe against black males

than females and against blacks than Hispanics.[19] These inferences are based on comparisons of hiring or employment rates of specific demographic groups with the rates at which they apply for jobs at various kinds of establishments. While the tendency of any group to be hired relative to its share of the applicant pool might reflect relative skills or other factors, these seem unlikely to account for the particular patterns that we observe in the data. The relatively greater preference for Hispanics likely reflects a broader preference among employers for immigrants over native-born blacks, in jobs that do not require cognitive or verbal skills, because of a stronger perceived work ethic among the former.[20]

Summary: Does Discrimination Matter?

Of course, if there are sufficient numbers of nondiscriminating employers relative to the size of the minority labor force, it might well be possible for minorities to avoid the adverse effects of discrimination on their employment or earnings by applying for work primarily at nondiscriminating firms. Indeed, there is some evidence that Hispanics may successfully be doing so, while blacks are not. Hispanics are hired in rough proportion to their share of the applicant pool, while blacks are hired much less proportionately.[21] But even if there are sufficient numbers of nondiscriminators in the market, and if they could be clearly identified, the employment opportunities of minorities are likely to be limited by other barriers when they seek employment in these firms (such as those associated with skills, etc.). Indeed, skill demands facing noncollege graduates seem to be relatively higher in larger firms and in those located in the central cities, precisely those where discrimination against blacks seems least severe.

Spatial Mismatch, Information, and "Contacts"

In addition to the problem of greater discrimination against blacks in suburban establishments, they may face limited access to these jobs because of the "spatial mismatch" problem noted above. Despite some modest recent declines in residential segregation between whites and blacks,[22] the geographic concentration of poor people and especially poor blacks in predominantly low-income neighborhoods is on the rise.[23] While poor people and blacks, on average, live closer to currently existing jobs than do whites, they are generally located farther from areas of net employment growth.[24] Job vacancy rates and wages are also higher in less-skilled jobs that are located in predominantly white suburbs rather than cities or racially mixed suburbs, suggesting better labor market opportunities for those with access to the former.[25]

Whether these factors have contributed to lower employment rates among blacks or low-income workers has been heavily contested in the economics literature, but the preponderance of recent evidence suggests that it has.[26] Furthermore, some effort has recently been made to identify the specific mechanisms by which spatial mismatch operates. Transportation does, indeed, appear to play some role.

For instance, inner-city black workers without cars have more difficulty gaining suburban employment than do black workers with cars, and employers located near public transit stops attract more black applicants and new employees than do those located further away.[27]

Presumably, the access of low-income inner-city residents to suburban employers depends not only on the proximity of employers to mass transit stops but also on the distance of various employers from low-income neighborhoods and the extent to which direct public transit routes are available between these sites (i.e., without the need to change buses or trains one or more times). Suburban areas located near the central city and those with significant minority residential populations will presumably be much more accessible than predominantly white areas located farther away.[28]

There is also some evidence, both direct and indirect, suggesting that the information available to inner-city blacks about job openings in predominantly white suburbs is limited as well.[29] Finally, the ability of low-income females to engage in lengthy commutes to distant areas is likely to be limited by their child care needs. On average, women engage in shorter commutes than men.[30]

The issue of information about job openings suggests a more general problem facing blacks and perhaps other unskilled workers who live in low-income neighborhoods: their lack of "contacts" and connections in the labor market. While the role of informal contacts in the job search process is stressed elsewhere in this volume (by Henly), there are a few differences across ethnic and income groups in this process. For instance, the use of networks and contacts to generate employment has been very extensive among Hispanic immigrants.[31] But among native-born blacks, these networks have been somewhat less effective in generating employment and have often generated jobs in predominantly black establishments that pay relatively low wages.[32] For those minorities in poor communities where few adults reside, the lack of contacts with the labor market might be one of several mechanisms through which "social isolation" appears to limit their employment opportunities over time.[33]

Wage Levels, Expectations, and Illegal Alternatives to the Labor Market

One final source of mismatch might be considered here: a gap between the wages that workers can earn on the demand side of the market, and what they expect or consider acceptable, that is, their "reservation wages." Recent evidence suggests that, while reservation wages are lower among blacks than whites at an "absolute" level, they are somewhat higher among the former relative to what they might actually be offered in the labor market;[34] and less-educated young black men appear to have dropped out of the labor force at greater rates than comparable young white men in response to declining wages.[35]

For the former, the opportunities they face in the legitimate labor market may not compare favorably with what they perceive to be available in the illegal market. But, once they become incarcerated and fail to accumulate some early labor market experience, their ability to reenter the legitimate market, and to earn anything above very minimal wage levels, appears to be seriously impaired.[36]

On the other hand, these results also imply that policies that improve the access of unskilled young workers to jobs with higher wages/benefits or potential wage growth over time might raise their willingness to accept early employment, lower their turnover rates out of employment, and thus enable them to gain early market experience that should help them improve their long-term earnings potential.[37]

Policy Implications

The evidence described above suggests that unskilled workers, especially inner-city minorities, face a variety of barriers on the demand side of the labor market relative to their own characteristics: high-skill demands of employers, racial discrimination, lack of transportation to and information about suburban jobs, and lack of effective networks and "contacts." Taken together, these factors generate difficulties for unskilled workers in gaining or keeping employment, especially at wages/benefits above the most minimal level.[38]

These problems suggest the need for a wide range of labor market interventions by government and other local agencies.

Job Placement Assistance from Intermediaries

Many of the "mismatch" problems noted above that are associated with spatial issues, such as transportation and information, can be addressed with assistance from labor market "intermediaries," that is, third-party agencies that can help bridge the gap between workers and potential employers along a variety of dimensions. These agencies can assist workers with job search or job placement, particularly if they develop good relations with local (often suburban) employers. They can also provide workers with transportation assistance, limited amounts of training (often targeted to jobs with specific employers), and support services aimed at improving job retention. Well-known examples of intermediaries that incorporate some or all of these activities include the Center for Employment and Training (CET), STRIVE, and Project Match in Chicago; around the country, a wide range of institutions (such as community-based organizations, community colleges, and others) are increasingly looking to play these roles.[39] The "Bridges-to-Work" demonstration currently being conducted by the Department of Housing and Urban Development also incorporates some of these notions (though with a relatively greater emphasis on transportation).[40]

Thus, the intermediaries can help address "mismatch" problems related to spatial issues and race and perhaps those dealing with skills as well. The intermediaries should be especially useful in tight labor markets (such as those we are currently experiencing), where many employers have strong needs for unskilled labor and are having difficulty meeting their needs with their traditional hiring practices. But, to maintain the confidence of local employers, the intermediaries must practice careful screening of their participants and cannot place those who lack job readiness or other basic employment skills. Indeed, this conflict between serving the needs of employers and those of disadvantaged workers has hampered the effectiveness of the U.S. Employment Service[41] and other intermediary agencies. If intermediaries need to screen out

the most disadvantaged workers to maintain their credibility with employers, then other approaches will have to be developed to provide some opportunities (or at least a safety net) for those groups of workers.

Improving Enforcement of EEO Laws

While racial discrimination in hiring is likely to be less severe in tight labor markets, the evidence suggests that it persists, particularly in small and/or suburban establishments. Improving the enforcement of EEO laws at the hiring stage in these sectors might therefore be a useful complement to activities that are designed to overcome spatial barriers to suburban employment. But to do so effectively, the government would need to develop new ways of monitoring employment practices in these types of establishments.[42]

Job Creation

For those individuals who might have difficulty meeting very basic private-sector skill demands on their own, even in tight labor markets, job creation strategies are an option to consider. These should be used as needed, especially in local areas or time periods when there is more slack in labor markets.

These efforts can take the form of subsidized employment in the private sector or direct public-sector employment. The latter can be explicitly "transitional" in nature, designed to provide individuals with early labor market experience and perhaps some credentials that would indicate to private employers their job readiness and competencies with regards to basic skills; at the same time, some services to local communities can be provided as well.[43] In other cases the employment might be viewed instead as work of "last resort," perhaps as a condition of receiving continued public assistance (such as in "sheltered workshops" for those who are not job-ready).

Wages, Benefits, and Other Supports

Given the high turnover rates and low wages/benefits that characterize employment for unskilled workers in many jobs, enhancing their earned wages and benefits might be a precondition for enabling them to achieve some economic self-sufficiency. Several states already have, or are currently considering implementing, earned income credits against state taxes that parallel the federal Earned Income Tax Credit program. The federal program needs to be periodically updated or indexed to the cost of living, to maintain the real value of credits over time. Since those without children, especially noncustodial fathers, currently qualify for very little credit, we should consider expanding it to cover them as well.

Additional subsidies for health care, child care, and transportation should also be considered. On the last issue, redesigning public transit routes to allow easier access of inner-city residents to areas of high job growth in the suburbs might also be a useful policy approach.

Over the Long Term: Skills and Mobility

While all of the approaches outlined above might improve employment and earnings prospects for unskilled workers, over the longer term, our goal should be to improve the skills that many workers bring to the labor market in the first place. The relevant skills here include the basic cognitive/social skills described above, early work experience, and credentials that clearly signal those skills to employers. To achieve these, young people in low-income communities must have improved opportunities and incentives for learning over their entire childhood and adolescence. Approaches therefore should include early childhood development programs, school reform efforts and school choice, effective school-to-work programs, and more support (both financial and informational) for postsecondary education and training.

Given the fairly strong evidence that is developing on how racial and perhaps economic segregation impairs the educational and employment outcomes of young blacks,[44] policies designed to improve the residential mobility of these individuals seem warranted as well. The "Moving-to-Opportunity" demonstration project incorporates this approach, as did the earlier Gautreaux program. Evidence from the latter indicated positive effects on the earnings and employment of parents who moved as well as on the educational attainment of their children;[45] early evidence on the former does not yet show any labor market effects for parents, but it implies a major reduction in the exposure of children to crime, which could well lead to improvements in educational attainment and additional decreases in crime participation over time.[46] Creating incentives for localities to reduce their exclusionary zoning practices or build more housing for lower-income residents[47] should be encouraged as well.

Endnotes

1. See, for example, Wilson (1987); Kasarda (1995); Holzer and Vroman (1992).
2. See Becker (1971). Discriminatory behavior can persist if employers are catering to the tastes of customers, or due to a variety of labor market imperfections. "Statistical" discrimination, based on imperfect employer information about the productivities of individuals within different groups, can persist as well under a variety of conditions.
3. Most of the results cited below appear in Holzer (1996), though some of the qualitative evidence also appears in Moss and Tilly (1995).
4. Zemsky (1997); Kirschenman and Neckerman (1991).
5. Pavetti (1995).
6. Burtless (1995); Pavetti (1997).
7. Maynard (1995).
8. Freeman (1992).
9. Holzer and Danziger (1998).
10. Blank (1995); Burtless (1995).
11. Neal and Johnson (1996).
12. Trejo (1997).
13. Bendick et al. (1994); Fix and Struyk (1994).
14. See, for example, Kirschenman and Neckerman (1991).
15. Wilson (1996) emphasizes that black employers share many of these negative impressions of young black workers, generating some question about whether these perceptions really reflect discrimination.
16. Donohue and Siegelman (1991).
17. Bloch (1994).
18. Holzer (1998); Holzer and Ihlanfeldt (1998); Lane, this volume.
19. Holzer (1996).
20. Kirschenman and Neckerman (1991).
21. The data on Hispanics are primarily drawn from Los Angeles in Holzer (1996). Evidence of hiring discrimination against Hispanics appears in Kenney and Wissoker (1994).
22. Farley (1995).

23. Jargowsky (1997).
24. Hughes and Sternberg (1992); Raphael (1997).
25. Ihlanfeldt (1997).
26. Holzer (1991); Kain (1992).
27. Holzer et al. (1994); Holzer and Ihlanfeldt (1996).
28. Kain (1992); Stoll et al. (1998).
29. Ihlanfeldt (1996); Raphael et al. (1998).
30. Holzer et al. (1994).
31. Falcon and Melendez (1997).
32. Holzer (1987a); Browne and Hewitt (1996).
33. Wilson (1987); O'Regan and Quigley (1996).
34. Holzer (1986).
35. Juhn (1992).
36. See Freeman (1992). Perceptions of higher returns in illegal than legal work are based mostly on relative wages and may not involve adjustments for the risks of incarceration or long-term prospects.
37. Holzer and LaLonde (1998).
38. For discussion of employer perspectives on these issues, see the paper by Lane in this volume.
39. Of these, only CET has been formally and successfully evaluated (Melendez (1996)), though evaluation of replication efforts are still under way.
40. Enterprise Zones and other approaches that stress economic development in or near low-income neighborhoods are another way of overcoming the geographic "mismatch" problem. While evaluations of earlier efforts indicated that they were not cost-effective means of generating employment for zone residents (e.g., Papke (1992)), the more recent "Empowerment Zone" projects of the Clinton administration may prove somewhat more successful, as the funds can be used for a much broader range of community and labor force development activities.
41. Bishop (1993).
42. Currently, only firms with 100 or more employees (and smaller ones with federal contracts) are required to file EEO-1 forms so that the racial composition of their establishments can be monitored. A different approach might involve the use of auditors, who can be targeted toward smaller and suburban establishments. Another approach could involve

the use of real job applicants, who are supported and encouraged to apply for suburban jobs while carefully recording all establishments to which they apply.

43. Examples of these approaches include the National Supported Work Demonstrations, Youth Corps, and Youth Build. See the paper by Barnow in this volume for more discussion of these issues.

44. See, for example, Cutler and Glaeser (1997).

45. Rosenbaum and Popkin (1991).

46. Katz et al. (1997).

47. Haar (1996).

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Chapter 7

Mismatch in the Low-Wage Labor Market: Job Search Perspective

Julia R. Henly

Introduction

Increasing attention has been paid to the question of whether and to what extent the employment difficulties facing disadvantaged workers are exacerbated by problems of spatial, skills, and informational "mismatches." It has been suggested, for example, that the ability of less-skilled workers to adapt to structural changes in the labor market might be affected by aspects of geographic space and racial segregation within that space (i.e., disadvantaged workers may not reside where firms seeking workers are located) and/or by human capital considerations (i.e., the skills of disadvantaged workers may not match the needs of employers). Moreover, job seekers may have inaccurate or insufficient knowledge about potential job prospects, and employers may face these same informational deficits regarding job seekers.

Several economic changes negatively affecting disadvantaged workers have given rise to this set of questions about mismatch. Industrial and technological changes have increased the demand for workers with more than a high school degree across industrial sectors and have shifted the demand for less-skilled workers from higher-wage manufacturing industries to lower-wage service and retail jobs.[1] There has been a corresponding increase in the use of temporary and part-time workers and a decrease in unionization, which have further contributed to the lower earnings of the least skilled.[2] Moreover, there has been an outmigration of low-

skilled jobs—in manufacturing, retail, and service—from central cities; however, the residential trends of disadvantaged central-city residents have not mirrored these locational employment shifts.[3]

Other research in this volume addresses the first two questions of *spatial* and *skills* mismatches, whereas this chapter attends to the third—the *informational* side of the mismatch question. In particular, this chapter will explore one aspect of informational access—the issue of job search and recruitment. Job search strategies are an important mechanism by which job seekers and employers acquire information about one another. The type of method employed will ultimately direct the job search and have implications for the kind and quality of information acquired. If employers and job seekers are relying on different search methods, or if particular search methods benefit some job seekers more than others, the quality of job matching may be affected.

As Holzer's chapter in this volume suggests, some problems of information may be a consequence of spatial mismatch. For example, central-city residents residing in job-poor areas may be less aware of job openings far from their home, and employers may use search strategies that make it difficult for them to gain such knowledge. Given that information about job openings is transmitted largely through the social networks of friends and relatives (a finding discussed in much greater depth later in this chapter), the social networks of spatially isolated individuals, assuming that they too are neighborhood-based, will be poor purveyors of information about employment opportunities outside of the central city. Although insufficient or inadequate information about job opportunities can be a consequence of spatial mismatch, information problems will not be resolved solely by addressing spatial barriers to employment.[4] That is, geography may shape the information available to employers and job seekers, but spatial constraints are unlikely to entirely define how searches are carried out.

The goal of this chapter is to ascertain from the existing job search literature whether there are informational barriers to employment that arise from a mismatch between employer and job seeker search strategies and for whom this informational mismatch may be most serious. The focus on informational mismatch should not be interpreted as a discounting of other important contributing factors to the employment problems of disadvantaged workers. In fact, it is important to keep in mind that although the attention herein is on informational barriers, human capital factors and macro-level indicators of economic activity each explain a much greater proportion of the variance in employment rates, as compared to either spatial or informational considerations.[5]

Types of Job Search Strategies

Employers recruit workers and individuals seek jobs using a variety of methods. Job search methods are often categorized as either formal or informal. *Formalized* search can operate via media advertisements and help-wanted signs or can take place in any number of public or private intermediary organizations (e.g., union halls, schools, employment agencies, and special job search and placement programs run through welfare offices, community organizations, and private agencies). Whereas some of these intermediary organizations screen and refer candidates to firms, others provide job search training with or without referrals. Still others serve

primarily as clearinghouses and phone banks—passing information to job seekers and providing the means for them to answer advertisements or place cold calls to businesses (which may or may not have positions available). Intermediaries vary as well in the extent to which they are developed to serve employer versus job seeker needs. Employers and job searchers who rely on *informal* methods, on the other hand, act on information from personal intermediaries, such as friends or acquaintances, neighbors, relatives, or current employees of a firm. When taking advantage of informal recruitment, employers typically encourage their current employees to refer potential applicants for positions, and job seekers turn to individuals in their social networks for information regarding job openings.

In addition to these formal and informal strategies, job seekers frequently approach firms directly without the help of a formal or informal go-between. For example, a job seeker might send an unsolicited application to a firm or walk into an establishment with no prior information about job availability or skill requirements. Direct applications and walk-ins are sometimes considered types of informal methods,[6] but they are treated as distinct here because neither direct applications nor walk-ins allow any prescreening of candidates or jobs. Finally, in some cases, no active search is carried out at all. In fact a relatively large number of jobs are filled by *nonsearchers* and *nonrecruiting* employers.[7] Although an understudied phenomenon, the available data suggest that falling into a job without an active search occurs both for individuals previously outside of the labor force and for employed individuals who move into new jobs.

Neither job seekers nor employers limit their searches exclusively to one of the above strategies. During periods of high unemployment, job seekers reportedly increase the number of search methods they use,[8] whereas during labor shortages employers may accelerate their recruitment efforts by employing multiple search strategies, even those that would be otherwise less preferred.[9] In particular, search via formal organizations is often viewed as a last-resort strategy by both sides and is used by job seekers primarily when jobs are scarce and by employers during tight labor markets.[10]

Effectiveness of Job Search Strategies for Finding Employment

Several studies have attempted to determine whether there is a relationship between the type of search method used and the outcome of the job search process. This literature has grown over the past 20 years to include studies of job seekers and employers; it consists of studies that examine large representative samples spanning several industrial and occupational sectors, as well as studies that provide a more contextualized and detailed examination of the job search process utilizing smaller-scale, often qualitative data sets.

Despite the growth of the job search literature, sampling limitations and measurement problems make it difficult to draw firm conclusions about the extent to which there is a causal relationship between search method and employment outcomes. The manner in which outcomes are measured varies, with studies typically defining the effectiveness of job search strategies in terms of (1) the frequency with which different job search methods are used *for the subset of hires that are successful;* (2) the perceived importance and perceived effectiveness of different search methods to the hiring process; or less often (3) the offer-to-application ratio based on the job search method used by job applicants.[11] Some studies have also examined the relationship

between search method and measures of job quality, such as turnover, productivity, and wages. Because most studies rely on nonexperimental, cross-sectional, retrospective data; may selectively examine only *successful* job searches; and may include data about job searches without information about actual job availability, we are limited in our ability to interpret significant associations that have been found between search method and outcome. Although most of the quantitative studies do incorporate statistical controls into the analyses, it generally remains unclear whether the search method per se (rather than some unmeasured characteristic of the job seeker, the firm, or the broader labor market context) is affecting the job search outcome.[12]

Despite methodological differences, a review of this literature does demonstrate a consistent pattern of results. Although employers and employees make use of multiple methods of job search, informal referrals are the most popular and seemingly most effective method of job search for job seekers and employers in the low-wage labor market. Advertisements and direct applications are frequently utilized but less often successful search methods, and formal organizations are used less and seem to be the least successful relative to the other methods. There is some variation by industrial and occupational characteristics and by the individual characteristics of the job seeker to this general pattern of findings. The findings from this literature are summarized below.

The Effectiveness of Informal Search Strategies

- *Across a variety of industrial and occupational sectors, informal referrals are the most frequent and most effective job search method used in the low-wage labor market.*

The most consistent finding in the job search literature, from both the employer and worker sides, is the importance of informal networks to the job-matching process. Both the early job search studies and several more recent investigations suggest that reliance on information gained from informal network members is an extremely common and effective job search strategy. Depending on the study, informal referrals are typically estimated to account for somewhere between 25 and 60 percent of hires.

The prominence of informal referrals is underscored both by studies of job seekers and employers. Job seekers who utilize informal referrals have a greater probability of getting an offer as compared to seekers who utilize other methods.[13] Moreover, informal referrals are most often mentioned as the type of method used to acquire one's job, in numerous studies of employees.[14]

Consistent with the findings for job seekers, employer studies also indicate that employers put considerable trust in the value of referrals. Across studies, employers report that somewhere between one-third and one-half of target jobs are filled either by a current employee referral or by referrals from acquaintances of the employer. For example, Holzer (1996), in his analysis of a survey of 800 employers in Atlanta, Boston, Detroit, and Los Angeles representing a variety of industries, finds that slightly more than one-fourth of the employers hired their last non-college-educated employee through a referral from a current employee, and an additional 12 to 14 percent of jobs were filled through referrals provided by a personal acquain-

tance of the employer. Several qualitative interview studies with urban employers suggest even greater employer reliance on informal referrals.[15]

Overall, these studies suggest that the use of informal referrals is relatively common across industrial sectors, occupational categories, and occupational statuses, but they seem to be used disproportionately for entry-level jobs, jobs that do not require a college education, and blue-collar jobs and for low-skilled/low-wage occupational sectors with ethnically homogeneous workforces. Small employers may be particularly likely to hire via informal network connections.

- *The informal referral process operates largely through closely knit, ethnically homogeneous social networks. As a result, informal referrals facilitate the employment of individuals within the network base of a firm's current workforce, while excluding individuals not linked to these network structures.*

The importance of informal network referrals to the hiring process suggests, of course, that job seekers with fewer connections to employed individuals—those least likely to receive inside information about jobs and least likely to be recommended by current employees to their employers—will be at a disadvantage in the job-finding process. In other words, an informal hiring system facilitates the employment of individuals who are already part of the network base of the current workforce, at the exclusion of others who may be more weakly attached to it. This exclusionary aspect of an informal search strategy is exemplified in the case of many employers of disadvantaged workers whose ethnically homogeneous workforces are maintained and supported by the practice of recruiting new employees almost entirely via employee referrals. Because these referrals are drawn primarily from closely knit and ethnically homogeneous social networks, it becomes very difficult for prospective job seekers with weaker network connections to penetrate the system. Such a system also narrows the labor market opportunities of the nonexcluded group to a limited set of segregated occupational "niches." Research suggests that low-skilled Latino/a and Asian immigrant workers may have particularly effective closely knit job networks, and these networks may operate at the expense of African Americans who might otherwise find employment in these firms.[16] In fact, because firms that rely primarily on internal employee referrals tend to have segregated Latino/a or Asian workforces, the exclusionary aspects of informal search most negatively affect African American job seekers whose social networks are disproportionately made up of other low-skilled blacks.[17]

The Effectiveness of Other Search Strategies

- *Compared to informal referrals, reliance on direct applications is a less-effective method of job search. A direct application is more likely to be successful for white applicants and in retail, sales, and service occupations and large, public-sector firms.*

Analyses of the Current Population Survey (CPS) data suggest that unsolicited direct applications represent the most common method of job search among the unemployed, and the use of direct applications tends to increase during periods of high unemployment.[18] However, despite their greater use, direct applications are less likely than informal referrals to successfully lead to a job offer or hire. Both studies of workers[19] and studies of employers[20] suggest that

somewhere between 10 and 25 percent of jobs in the low-wage labor market are actually filled by unsolicited applications. African Americans are less likely than whites to receive offers as the result of a direct application, and the black-white gap in offer rates has been found to be higher for direct applications than for any other search method.[21]

Whereas direct applications do not appear to be the primary search method in any industrial or occupational sector, their use is apparently more common among employers in retail sales and service.[22] Direct applications are also used more often by large firms than small firms[23] and by the public sector as opposed to the private sector.[24] Importantly, African Americans who rely on direct applications in their job searches continue to be at a disadvantage relative to white direct applicants even in sectors with proportionately higher black employment (i.e., the public sector).

- *Advertisements account for about as many hires as direct applications and, like direct applications, seem to function to the disadvantage of nonwhite applicants. Advertisements are more commonly used by suburban employers and to hire clerical and entry-level managerial and professional workers in the private sector.*

Most studies suggest that, although employers have increased their use of advertisements in the last 20 years,[25] fewer than 10 percent of jobs obtained by less-educated workers are the result of successful responses to media advertisements [26] Employer studies suggest the number is somewhat higher, accounting for about 25 percent of less-skilled hires. [27] Although the racial gap does not appear as large as for direct applications, research findings suggest that African Americans who rely on advertisements are still significantly less likely than their white counterparts to receive offers.[28] Advertisements seem to be used more often by private- rather than public-sector employers,[29] and by suburban firms and firms seeking clerical and entry-level managerial and professional workers.[30]

Data are less consistently collected on the use and effectiveness of help-wanted signs; however, there is little evidence that this method is particularly desirable or effective—either for employers or job seekers.[31] Qualitative evidence suggests that central-city employers, in particular, are skeptical of posting help-wanted signs for fear that doing so would attract a flood of "undesirable" applications from local residents, which could be avoided through more targeted strategies such as informal referrals.[32]

- *Formal organizations are generally the least-preferred method of job search by both job seekers and employers, and public and private agencies together account for 10 percent or less of less-skilled hires. Although search via formal organizations accounts for a minority of job matches, it is a relatively more successful strategy for African Americans when compared to their success using other methods. Formal organizations are disproportionately used by large, bureaucratic firms with substantial hiring needs.*

Data from several firm-level employer studies are remarkably consistent concerning the low percentage of hires obtained through public or private agencies.[33] These studies suggest that public employment agencies, which tend to be used disproportionately by unemployed and African American job seekers, account for less than 4 percent of less-skilled hires.[34] Private employment agencies have been found to account for a slightly higher percentage of less-skilled

hires and are disproportionately utilized to fill clerical positions. Overall, employment agencies (public or private) are used more frequently by larger, more bureaucratized firms with formalized personnel offices and especially by financial institutions.[35]

Although the use of formal agencies for job searches is relatively rare across industrial sectors, there is some evidence that when such a search method is used by an employer, African Americans benefit.[36] The formalized and less-subjective screening process that occurs in employment agencies as compared to the other methods undoubtedly lessens the influence of negative beliefs based on group-level stereotypes, resulting in a fairer evaluation of job candidates. The problem, of course, is that these same formalized procedures are looked on unfavorably by many employers, who in fact prefer to have the opportunity to exercise more subjective decisionmaking. Thus, whereas formal organizations may hold benefits for African American job seekers, the promise of these organizations remains limited because most employers prefer other hiring methods.

The Impact of Search Method on Turnover, Worker Productivity, and Earnings

It is also important to know whether the search strategy has an impact on other employment outcomes such as turnover, productivity, and earnings. As discussed below, the evidence regarding this question is quite mixed.

- *Job turnover may be lower and perceived productivity higher for jobs gained through informal referrals; however, there is no consistent relationship between type of search method used and earnings.*[37]

Both quantitative and qualitative studies consistently find that turnover is lower for jobs found through informal recruitment channels as compared to advertisements, public and private employment agency referrals, or walk-ins.[38] Although the effect of search method on actual productivity is unknown, there is evidence that, net of individual-level and firm-level characteristics, employers judge the productivity of workers more positively when they have been referred through an informal contact, rather than via either a public or private employment agency.[39]

Informal recruitment may represent an effort by employers to regulate worker conduct and facilitate on-the-job training, thereby improving worker productivity and reducing turnover.[40] Specifically, it has been argued that working side by side with one's family members and friends on the job facilitates the transmission of normative work rules and increases the pressures on employees to successfully meet workplace expectations. Whereas some employers express concern about coworkers being "too close," especially in sales positions and positions that deal with the transfer of money, these concerns apparently do not outweigh the benefits that informal referrals represent to most employers.[41]

The relationship between search method and earnings is less clear. Findings that suggest initial wage gains for workers who found their jobs via informal contacts rather than formal

means[42] are dampened by studies suggesting these gains are short-lived for most respondents[43] and by other studies that show no impact on wages,[44] or even negative wage effects.[45] Holzer (1996) finds, for example, that, net of other effects, firms whose last noncollege hire was recruited through a current employee (as well as through direct application) actually paid less than those recruited via private employment agencies and union referrals.[46] Moreover, to the extent that informal job search does hold a relative wage advantage over other methods, the advantages apparently hold only for whites.[47]

- *The mixed results regarding earnings might be explained by differences in the social capital of networks. Social networks with higher-status members may provide ties to higher-quality jobs, and vice versa.*

Whether informal referrals lead to better-quality jobs (e.g., higher earnings) may be dependent on the status characteristics of the referring individuals within a job seeker's network. Unemployed or low-wage job seekers who are embedded in closely knit, homogeneous networks of other unemployed or marginally employed persons may not reap wage benefits by relying on informal search methods, because their social contacts share a limited amount of job information and this information is likely to concern a narrow range of low-wage job openings. In contrast, reliance on a more heterogeneous network of individuals who vary in status as well as connections might expand an individual's knowledge about job opportunities, more significantly than is possible within the shared milieus of close family and friends, and result in a more diverse set of referrals and ultimately better-quality jobs.[48] Such an explanation helps to explain the apparent differential effects of informal referrals by race and ethnicity. For example, minority job seekers who successfully rely on white referrals, especially white male referrals, have been found to receive higher wages than those whose referrals share similar individual characteristics to themselves.[49] Thus, it would appear that the question of whether an informal referral leads to a better job is dependent on characteristics of the referring source and his or her relationship to the labor market.

Why Are Informal Referrals So Important?

- *Informal network referrals represent an inexpensive and efficient method of job search.*

There are many factors that might help explain the preference for particular job search methods over others. For example, search methods vary in the costs and time investments that they demand, as well as in the applicant pools that they draw. Thus, promising search strategies might be viewed as those that produce a good pool of job candidates with limited expenditure of time or effort on the part of the employer. Especially for jobs that do not demand a college education, employers prefer inexpensive search strategies that demand little of their time.[50]

An informal referral strategy is an inexpensive and efficient method of job search. Although some of the other methods are equally inexpensive on the front end, employers who rely on referrals can exert control over the size of the applicant pool (by limiting the number of referrals they accept and requesting referrals from a select group of their best workers), thereby increasing the efficiency of the search and selection process. Other inexpensive search meth-

ods, such as direct applications and help-wanted signs, and more expensive approaches, such as media advertisements, are likely to produce much larger applicant pools (especially during periods of high unemployment), the sorting through of which may ultimately prove to be a significant time investment for employers.

- *Informal referrals also serve an important applicant screening function, which employers believe improves the quality of job applicants and the efficiency of the recruitment process.*

In addition to reducing the size of the applicant pool, the informal referral process results in a prescreened pool of job applicants, which may improve the efficiency of the search by affecting the quality of the candidate pool.[51] Rather than an employer screening each candidate's application "cold," as is the case with direct and walk-in applications as well as applicants found through advertisements, candidates who are referred via an existing employee have already been through an initial screening process by the referring party.[52]

The screening carried out by a firm's employees may be considered especially reliable by employers for a number of reasons. Employers apparently feel that it is in their workers' own self-interest to refer the most qualified candidates—as poor-quality referrals might reflect negatively on the referral source. In addition, employers report that they expect their employees to be embedded in social networks of similar others, and therefore referred applicants are deemed qualified by *association*. Moreover, referring employees—who are familiar both with the job and with their social network members—are believed to be in a unique position to evaluate the "fit" of an employee with a workplace and may therefore be able to best assess a candidate's promise.[53] Thus, the extent to which employers take advantage of the various search strategies may not only have to do with the front–end cost of the search method, but also the perceived benefits of the method in terms of how well it is able to screen the kinds of applicants an employer seeks.

This screening function provided by informal referrals may be viewed as particularly valuable to employers who seek candidates with few formal skills but with strong "soft skills," such as the ability to get along with coworkers and customers and desired work habits (e.g., punctuality, willingness to take supervisor orders).[54] Because worker qualifications such as these are highly valued yet difficult to infer from employer-administered skills tests and educational credentials, an informal referral from an existing employee who possesses these traits may be a useful proxy given the lack of a more diagnostic screening procedure.[55] Moreover, because social networks themselves tend to be racially and ethnically segregated, informal network referrals may be one way in which employers who prefer hiring workers from a particular racial or ethnic group can implicitly screen for the race and ethnicity of their applicants. Thus, the informal referral is viewed as a valuable means of screening a candidate's qualifications and competence and may be one manner in which employers can subtly exercise group-based preferences.

Although formal organizations like public and private employment agencies also perform an initial screening of applicants, employers may have less confidence in the formalized screening process as compared with that which occurs "naturally" within informal networks. Employers, especially those who are looking for workers with limited formal skills but strong soft skills, may be concerned about the quality of referrals sent from organizations that rely primarily on objective screening criteria.

Moreover, employers may also mistrust formal employment agencies because of concerns regarding the applicant pool these organizations typically serve. Formal organizations often serve disadvantaged groups whose members are believed to be poorly prepared for the labor market (e.g., unemployed job seekers, welfare recipients, urban youth) and toward which society holds generally negative attitudes. As a result, there may be a stigma attached to candidates referred from such places, leading employers to avoid them. For example, a referral from a welfare office may increase the saliency of employers' preconceived beliefs about the work skills and qualifications of welfare recipients in general, which may in turn predispose employers to act unfavorably toward such organizations. Similar arguments have been made about employer attitudes toward the public employment service and voucher programs that provide tax credits to employers who hire workers from targeted groups.[56] Such signals about the quality of a "typical referral" from a particular organization may or may not be accurate on average, but because many employers shun these services, even the most qualified candidates who rely on formal organizations will be disadvantaged in the hiring process. Although informal referrals may also be drawn from a generally disadvantaged group, employers apparently believe that, compared to formal organizations, their existing employees are both more motivated and more able to effectively differentiate qualified from less-qualified candidates.

Lessons Learned: Is There a Mismatch?

The answer to the question of whether there is a mismatch between the search strategies of workers and employers is not a straightforward one. If the question is to be interpreted solely in terms of whether there is an overall match between the types of search methods employed, there is very little compelling evidence that the methods of job seekers are discordant with those of employers. Only in the case of direct application—a method favored by many more job seekers than employers—is there evidence of a significant mismatch by search strategy. And even here, the impact of the mismatch may be limited, given that most job seekers rely on multiple methods of job search. Concerning the other methods examined, both employers and job seekers rely on advertisements with limited to moderate success, neither rely predominantly on formal intermediaries, and both employers and job seekers clearly recognize the value of informal referrals to the job-matching process. Social network relationships are exploited both on the demand and the supply side, and they account for a significant number of hires in a variety of industries, especially for less-skilled occupations. Thus, there does not appear to be a glaring mismatch between the search strategies of workers and the recruitment methods of employers in the low-wage labor market.

However, the finding that both job seekers and employers recognize the value of informal ties and use them to find and fill positions does not lead to the conclusion that the process works to the same end for all job seekers. As was suggested above, not all job seekers are part of effective job networks. The job information gained through informal referrals may be more or less credible depending on the characteristics and status of the individual providing the information and his or her connection to the labor market. Moreover, employers may base their judgments regarding the quality of a referral on their views of the referring party rather than on the actual qualifications of the referred candidate. Thus, a critical examination of the process of finding work and workers, respectively, suggests that the job-matching process is

complicated by forces that shape not only the types of search methods used but also the manner in which they are used. Attending to these factors results in a less-affirmative answer to the mismatch question.

Of course, employers are not all looking for the same types of workers, nor is an informal search method the only strategy that results in successful job matches—leaving open the possibility that those job seekers least likely to benefit from informal referrals will successfully take advantage of other methods. There is some evidence that this does occur. For example, African American workers in public-sector employment are more likely to have been hired through a formal employment agency than through one of the other methods of job search.[57] However, recent job growth has been concentrated in industries like service and retail that especially favor informal recruitment methods, which may operate to the disadvantage of African American job seekers.

Moreover, employers who rely on other methods, such as advertisements and direct applications, appear to employ screening criteria that may effectively eliminate the very same job candidates negatively affected by the informal referral process. In particular, like employers who utilize informal referrals, employers who rely on direct applications and advertisements may also search for candidates who possess hard-to-measure "soft skills" and may rely on subjective measures to infer a candidate's qualifications as a result. In fact, some employer studies suggest that employers act on information based on group-specific beliefs—or stereotypes—in the screening process of the applicants who come to their attention via advertisements or direct application. Such an argument has been used to explain African Americans' relative disadvantage in obtaining jobs through advertisements and direct applications (where race may be used as a proxy for worker qualifications in the screening process) and their relative success in public employment (where more formalistic and less-personal screening criteria are used).[58]

One might also caution too rosy an interpretation of the job-matching process for those individuals who appear to be on the winning side of this equation (i.e., groups that have strong footholds in industries because of effective job networks). As was suggested earlier, closely knit ethnically segregated "niches" function not only to exclude some from getting hired but also to segregate those hired into low-quality jobs in firms with limited future rewards. Such a closed, informal system may take advantage of workers who have lower expectations about workplace conditions or who may be less able or willing to take recourse against negative working conditions. Such a characterization seems most compelling for firms that rely heavily on immigrant labor.

Policy Considerations

Potential Role for Formal Intermediary Organizations. Given that some job seekers are disadvantaged by a system that relies so heavily on informal network referrals to match workers with jobs, the challenge of policy is to provide effective job-matching alternatives to help socially isolated workers gain entry into otherwise "closed" occupations. Formal intermediary organizations exist largely to serve this function, as they typically assist job seekers who are having difficulties finding employment through other methods. Thus, it is not surprising that national and local attention to formal job placement organizations has heightened with the

strengthened mandate to place welfare recipients more quickly into jobs. Although these programs are proliferating, and there is excitement about them based largely on anecdotal evidence, their effectiveness awaits careful evaluation.

There are potential benefits to investing in formal employment and placement agencies; however, there are many hurdles that stand in the way of their effectiveness. On the positive side, such agencies are relatively easy to conceptualize as a policy intervention. Not only do we have existing models to which to refer, but the alternative (to design interventions that exploit informal connections and operate to change employer attitudes toward certain groups of workers) seems somehow more daunting. Moreover, at least in theory, formal organizations should reduce the time and cost to employers of screening applicants who would otherwise come to their attention "cold" via advertisements or direct applications. Thus, intermediary organizations might exert a positive effect on the labor market through improving the efficiency and quality of matches.

However, as has been argued throughout this chapter, the success of formal organizations has been limited to date.[59] Employers tend to be skeptical about the quality of candidates referred from these agencies, both because these organizations are believed to exercise less discretion during the screening process and because the candidate pool they target is often discredited as a whole. Thus, employment agencies are used as a "last resort" by job seekers and employers.[60] Moreover, with some exceptions, formal organizations serving disadvantaged workers have paid little attention to the quality of jobs offered by the firms with which they work.

In order for formal organizations to serve as a viable policy option, then, their image as well as their effectiveness would need to be improved. These organizations might try to take on some of the most attractive characteristics of an informal referral system. That is, steps might be taken to provide an inexpensive, efficient service that would be viewed by employers as referring the most qualified candidates for the available positions. To do so, however, it would seem that intimate relationships between firms and employment agencies would need to develop, and agencies would have to focus their attention on screening clientele according to the often subjective criteria most desired by employers.

Such a model has been proposed as an alternative to standard employment agencies and welfare-to-work programs.[61] These authors call for the development of community-based agencies that are voluntary and reach a wide range of job seekers, develop strong relationships with employers and job seekers, and operate administratively in a professional, flexible, nonbureaucratic fashion. Employers may respond more positively to less-bureaucratic agencies that understand the employment needs of the community and with which they have developed close working relationships. Employers may also be less skeptical of referrals from voluntary employment services that do not target their services to a specific, perhaps mandated and resistant, clientele. Moreover, the community employment agencies proposed as part of this model would recognize that job seekers and employers have a diverse set of needs and would provide a host of individualized services to support job preparation, in addition to job search and placement. Such a comprehensive strategy is important for the success of such agencies because it would address the many needs of job seekers and employers and ultimately improve the overall quality of the candidates being referred and the specific job match of the referrals. With a

more fragmented approach that focused solely on job search, one wonders whether any attempt to "informalize" a formal agency would simply result in an agency adopting exclusionary aspects of informal referral practices—for example, by "creaming" and referring the most-qualified applicants while ignoring the needs of those most difficult to serve.

Stronger Enforcement of Existing Anti-Discrimination Laws. Policies that improve the flow of information between job seekers and employers should certainly ameliorate the job-matching process. However, solving the information problem alone may not be enough. Employers who are satisfied with the current system, despite its information limitations, may not take advantage of policies that could improve their ability to make more informed matches. Moreover, as this chapter has indicated, studies suggest that employers may rely on an applicant's category membership as a screening device when sifting through advertisements and direct applications and may prefer informal referral-based recruitment because it produces an ethnically and racially homogeneous workforce. To the extent that these practices are motivated by discriminatory hiring preferences on the side of employers, a change in job search practices may not result from better information alone.

Thus, in addition to improving the information available to job seekers and employers, we also need to address discriminatory hiring practices. The enforcement of anti-discrimination laws at the hiring stage has been limited to date,[62] despite evidence that race and gender characteristics are used as signals to infer applicant qualifications in the hiring process. Thus, policy efforts might be wisely directed at greater enforcement of Equal Employment Opportunity programs, focusing on firms that demonstrate a preference for hiring certain workers over others despite comparable qualifications. Such a direction would be a necessary first step toward alleviating the continued unequal treatment of applicants based on group membership.

Tax Credits to Employers for Hiring Disadvantaged Job Seekers. Another approach to facilitating successful matches between employers and workers concerns altering the incentives for employers to hire the job seekers who come to their attention but who they reject. Investment in human capital and skill development that would ultimately produce a more qualified applicant pool is, of course, one important way to do this from the supply side. However, many employers do not reject workers based on their education and skill credentials but rather for other more subjective reasons. Thus, demand-side solutions have been proposed as well, in particular the provision of monetary incentives (tax credits) to employers who are willing to hire disadvantaged job seekers (e.g., welfare recipients, urban low-income youth).[63] Such approaches have been in existence in the U.S. for over 30 years and have received renewed attention by the Clinton administration as part of its overall welfare-to-work strategy.

Tax credit programs have traditionally been underutilized by employers, who may not view the incentives as substantial enough given the perceived risk involved in hiring the most disadvantaged workers.[64] In fact, some research suggests that these programs can actually operate to reduce a targeted job seeker's chances of being hired by making salient the stigmatized category to which the candidate belongs. This stigma hypothesis suggests that rather than being viewed as an incentive by an employer, a tax-credit voucher simply draws attention to a job seeker's potential deficits. Moreover, employers who do utilize tax credits may continue to shun the most disadvantaged of the targeted group and offer positions to candidates that they

would have hired otherwise without the incentive.[65] In a discussion of these considerations, Katz (1998) concludes that when wage subsidies such as tax credits are used in conjunction with aggressive job creation, training, and retention services, they prove valuable; however, as "stand-alone" policy initiatives, their effectiveness is questionable. Thus, like investments in formal intermediary organizations, wage subsidy programs may need to be part of a more comprehensive employment strategy for them to truly be successful.

Conclusion

This paper has been concerned with the extent to which there are problems of informational access that complicate the matching of workers with jobs. Whereas it is certainly important to assess the extent to which there is an informational mismatch between individuals seeking jobs and employers seeking workers, it is also important to recognize that successful job matches are only a first step toward strong labor market attachment. The role of changing skill requirements; barriers imposed by race, sex, and other group statuses; and broader labor market conditions are crucial determinants of labor market opportunities that cannot be properly understood (or overcome) through a narrow look at job search strategies. Moreover, although policies that ultimately result in an improvement in job matching through closer attention to search strategies may benefit individual workers, these policies may not have corresponding effects on the *aggregate* labor market.[66]

Beyond these more long-term considerations, however, the findings reported in this chapter do suggest that problems of informational mismatch are important and may affect the employment prospects of some workers. Employers exploit search strategies that they believe will target qualified candidates inexpensively and efficiently. For many employers in the low-wage labor market, informal referrals represent such a low-cost and efficient strategy. Especially when job qualifications are difficult to ascertain through objective means, employers may find that the informal referral process includes an invaluable and trustworthy screening function not available with other methods.

Job seekers also disproportionately rely on the informal referral process in their search efforts. However, whereas many job seekers successfully find employment from informal referrals, those who are socially isolated from job networks or whose network members do not provide effective referrals are disadvantaged. Employers may selectively act on referrals from those employees they deem most qualified or productive, while ignoring the referrals of less-desirable employees. Thus, the informal referral process often produces referrals from a homogeneous, closely knit network of individuals, and it can result in quite segregated workforces that are difficult to penetrate from the outside.

Moreover, the workers who are likely to benefit least from the informal referral process are also likely to be disadvantaged by many of the other search methods. This is because in their efforts to recruit efficiently and inexpensively for positions that increasingly demand difficult-to-measure "soft skills," employers may infer information about a worker's qualifications from categorical information such as race, sex, welfare status, or other group memberships. Thus,

an employer may believe that African Americans, central-city residents, or welfare recipients are less likely to be good workers and then use those individual characteristics as a negative flag when reviewing direct applications or responses to advertisements. These same employers may avoid relying on formal search methods altogether because formal agencies are less likely to rely on such proxy information or subjective screening criteria. Thus, efforts to improve the information that employers and job seekers have about each other through the better matching of search strategies would also need to address the underlying motivations guiding employer preferences that may ultimately result in discriminatory hiring practices.

Endnotes

1. Blank (1997); Danziger and Gottshalk (1995).
2. Mishel and Bernstein (1994); Freeman (1994).
3. Hughes (1995); Holzer (1996); Wilson (1987).
4. Mier and Giloth (1985).
5. O'Regan and Quigley (1998).
6. See, for example, Holzer (1987).
7. Granovetter (1995).
8. Ports (1993).
9. Granovetter (1995).
10. See Abraham's comments in response to Bishop (1993) regarding how search method choice and effectiveness might be affected by labor market conditions.
11. Studies that measure offer-to-application ratios are based on surveys of job applicants rather than employers (see, for example, Holzer 1987). Whereas Holzer's (1996) employer study provides information on applicant-to-hire ratios from the demand side, the data are not disaggregated by search method. Most employer studies choose to operationalize effectiveness of job search as the method that is "most important" to an employer (e.g., Braddock and McPartland 1987) or the method that was actually used in the case of the most recent hire (e.g., Holzer 1996).
12. Abraham's response to Bishop (1993), Holzer (1996), and Marsden and Campbell (1988) all discuss these methodological difficulties in greater depth than is presented here.
13. Holzer (1987); Blau and Robins (1990).
14. See Falcon and Melendez (1997); Oliver and Lichter (1996); Corcoran, Datcher, and Duncan (1980); Marsden and Campbell (1988); Ullman (1968); Ludwig (1998); Henly (1999).
15. Waldinger (1997); Kirschenman and Neckerman (1991); Henly (1999).
16. Waldinger (1997); Kirschenman and Neckerman (1991).
17. Falcon and Melendez (1997); Oliver and Lichter (1996). For jobs that require a college degree, whites are significantly more likely to be hired than other minorities when informal networks represent the preferred recruitment strategy (Braddock and McPartland 1987).
18. Ports (1993).

19. Marsden and Campbell (1988); Holzer (1987).
20. Holzer (1996); Braddock and McPartland (1987)
21. Holzer (1987).
22. Holzer (1996).
23. Marsden and Campbell (1988).
24. Braddock and McPartland (1987).
25. Ports (1993).
26. Corcoran et al. (1980); Marsden and Campbell (1988). Although job seekers can also advertise their services in media publications, the job search literature on advertisements primarily concerns the posting of advertisements by firms and the response to these advertisements by job seekers.
27. Holzer (1996); Reingold (1997).
28. Holzer (1987).
29. Braddock and McPartland (1987).
30. Holzer (1996).
31. Holzer (1996); Marsden and Campbell (1988).
32. Henly (1999); Newman (1999).
33. Bishop (1993); Holzer (1996); Marsden and Campbell (1988).
34. We might expect the use of public employment agencies to fluctuate as the number of job losers eligible for unemployment insurance fluctuates because registration with the public employment agency is mandatory for all eligible job losers who wish to collect unemployment benefits. Consistent with this reasoning, Ports (1993) reports a decline between 1970 and 1992 in the use of public employment agencies among unemployed job seekers and suggests that this may be due to the fact that the number of unemployed individuals who are actually eligible for unemployment insurance declined over this period.
35. Marsden and Campbell (1988); Reingold (1997).
36. Holzer (1987); Oliver and Lichter (1996); Braddock and McPartland (1987); Valenzuela (1999).
37. See Lane in this volume for a fuller discussion of job turnover.
38. See Bishop (1993) for a review of these studies.
39. Bishop (1993).
40. Grieco (1987); Stack, forthcoming.

41. Henly (1999); Granovetter (1995).
42. Coverdill (1994); Staiger (1990).
43. Corcoran et al. (1980).
44. Bridges and Villemez (1986); Marsden and Hurlbert (1988).
45. Holzer (1996).
46. Holzer (1996) notes the ambiguous interpretations of these multivariate findings. Rather than recruitment strategies driving wages, it is plausible that employers use particular recruitment methods because they are most likely to target employees of a particular skill level (and who therefore merit a particular wage).
47. Korneman and Turner (1994); Falcon and Melendez (1997).
48. Oliver and Lichter (1996); Braddock and McPartland (1987). The relevance of network member status is discussed in depth in Lin, Ensel, and Vaughn (1981). Also, for a discussion of network heterogeneity, see Granovetter's discussion of "strong" versus "weak" ties (1973, 1995).
49. Braddock and McPartland (1987); Oliver and Lichter (1996).
50. Braddock and McPartland (1987).
51. In the job search literature, screening is generally considered as theoretically distinct from recruitment (as a second stage to the hiring process). However, as is argued herein, search methods may be chosen in part because of the screening function that they serve.
52. Employers who rely on advertisements can also exercise some control over the type of applicant pool that they draw, by strategically placing advertisements in media outlets with high levels of a preferred audience. Kirschenman and Neckerman (1991) find that Chicago employers, for example, advertise in newspapers whose readerships are overrepresented by preferred job candidates (either residents of particular neighborhoods or members of preferred ethnic groups). Thus, advertisements can also play a screening role, although a more limited one than do informal referrals.
53. See, for example, Grieco (1987), Waldinger (1997a), Kirschenman and Neckerman (1991), Henly (1999).
54. See Moss and Tilly (1995) for a more elaborate discussion of "soft skills."
55. Henly (1999).
56. See Bishop (1993) on the Employment Service and Burtless (1985) on the stigma of vouchers.
57. Valenzuela (1999).

58. For a more elaborate discussion of how race and other stereotypic conceptions might affect employer evaluations, see Kirschenman and Neckerman (1991), Moss and Tilly (1995), and Henly (1999).

59. At least in the U.S., the record is relatively weak. See Rosenbaum, Kariya, Settersten, and Maier (1990) and Osberg (1993) for the experiences of other countries.

60. Granovetter (1995); Bishop (1993).

61. Handler and Hasenfeld (1997, 1999).

62. Leonard (1990).

63. See Barnow in this volume for more discussions on hiring tax credits.

64. Lorenz (1995).

65. See Lorenz (1995) and Katz (1998) for a review of the research on wage subsidies.

66. Abraham (1993).

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Section IV

Barriers to Advancement in the Low-Wage Labor Market

Chapter 8

Work as a Stepping-Stone for Welfare Recipients: What Is the Evidence?

Peter Gottschalk

Introduction

This essay reviews the evidence on the extent to which low-skilled workers gain from labor market experience. Entry-level jobs for workers with few skills are viewed by some as stepping-stones to better jobs. Others see them as the first in a string of dead-end jobs. Is the empirical evidence consistent with either of these views?

The answer to this question is particularly important given the recent shift to a work-based welfare strategy. Will the work requirements lead to early labor market experience that will in turn raise future wages? Will the increase in wages be sufficiently large to lead to self-sufficiency? This hope for the success of work programs designed under the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) is clearly articulated in the following program descriptions:

> Work First programs share a common philosophy regarding work: any job is viewed as a good job and program efforts should be geared toward helping recipients enter the paid labor force as quickly as possible (Holcomb et al. 1998, p. 4).
>
> The best way to succeed in the labor market is to join it. It is believed that job advancement and higher wages will come from the experience of working rather than from first building skills through education and/or training (Holcomb et al. 1998, p. 13).

If early labor market experience does have long-term consequences, then these and other work-oriented programs will provide the initial push that will lead to self-sufficiency.

This essay is divided into three parts. The first describes the difficult methodological issues that must be addressed in any study trying to measure the impact of early labor market experience for low-skilled workers. The two sections that follow provide evidence based on experimental and nonexperimental evidence. The final section contrasts the state of knowledge on this question to the state of knowledge about the effects of human capital programs.

The Evaluation Question

Before turning to the evidence on whether work-based programs are likely to have a long-term impact on wages, it is important to understand exactly the question being asked and the conditions under which different types of evidence answer this question. The question is much more difficult to answer than is commonly assumed.

The claim that taking a low-wage job will improve future wages is a claim about an actual event—the person's actual outcome—and a hypothetical outcome—what would have happened *if* the person had taken the job. Clearly, the counterfactual is not observable. The inability to see people in both states (having taken the job and not having taken the job) is *the* fundamental issue in evaluation studies. If we could only rewind the tape and have the person follow the alternative path, we would have the answer. This is, however, not possible, so the question can only be answered by making assumptions that allow the researcher to compare other people's outcomes to infer what *would have happened* to the person had he/she followed the alternative path. These "identifying assumptions" are the key to answering the evaluation question.

Randomized experiments require the weakest assumptions. Under this approach, people are randomly assigned to a "treatment" group and a "control" group. A treatment (e.g., job placement) is randomly assigned to a subset of the participants. In a classical experiment, the effect of the treatment is measured by the difference in outcomes between the treated and the control groups. The only assumption necessary is that the treated group would have had the same outcomes as the control group had they not received the treatment. This assumption is justified by random assignment. If people are truly assigned randomly to the treatment and control groups, then the only systematic difference between the two groups is the treatment.[1] Therefore, differences in outcomes between the two groups reflect the pure effect of the treatment, not unobserved differences in outcomes that would have taken place even without the treatment.[2]

The second method of measuring the impact of early labor market experience on future outcomes is to use nonexperimental data. For example, entry-level jobs may be more plentiful in some areas than others. The resulting variation in early work experience, which may affect future wages, potentially takes the place of random assignment. It is, however, now necessary to assume that this nonexperimental assignment is random. If people with skills live in areas with more plentiful jobs or higher wage growth, then it is not possible to separate the effects

of having obtained a job from the effects of having more skills.[3] Therefore, if one were to tabulate the adult wages of persons classified by their initial employment status, or to estimate regressions with adult wages as the dependent variable and initial employment status as one of the independent variables, one would implicitly be assuming that initial employment status was random. However, more motivated people are more likely to find jobs initially and are more likely to receive high wages later in life. Comparing their wages with the wages of less motivated people who did not have the early labor market experience tells us little about the wages the latter group would have received *had they landed a similar job.*[4]

While nonexperimental studies have these drawbacks, they may still be useful if they can be used to obtain bounds on the possible future effects of work on the target population. For example, it might be reasonable to assume that nonworkers would have gained less from early labor market experience than those who did work. In this case, nonexperimental evidence would give us an upper bound on what the nonworkers would have gained from work had they had early market experience. For example, knowing the impact of work experience on future wages for the welfare mothers who *did* work may give us an upper bound on the potential gains from work for those who did not work.

The Evidence

Experimental Evidence

During the 1980s, states were given wide latitude to experiment with programs aimed at increasing future employment and earnings of welfare recipients. Many states set up services, such as job search workshops, that made it easier for participants to find work. As part of these welfare-to-work projects, states were required to monitor the experiences of participants and a control group.

At one level these experiments provide support for the proposition that early labor market experience yields subsequent benefits. Three years after receiving job placement services, the earnings of experimentals were higher than the earnings of the control groups.[5] The annual gains were, however, small. Most differences were in the $200 to $300 range, with few of the programs showing gains over $600.[6] While gains of this size are not trivial for people with limited incomes, they are not large enough to lead to self-sufficiency. Even after reaping the benefits of the program, the earnings of the experimentals were still in the $2,000 to $3,000 range.

Two more pieces of evidence from the welfare-to-work experiments are relevant. First, the gains in earnings of the experimentals were primarily the result of increased hours, not increased wages. Women were working more but at the same low rate of pay, indicating that initial jobs were not stepping-stones to higher-paying jobs. Second, the benefits of almost all these programs did not continue through the fifth year.[7] The five-year follow-up evaluation indicates that the earnings gains of experimentals over controls during the first three years largely reflected a shorter time to obtain the initial job, not better future outcomes for people who obtained these jobs. Almost all of the employment gains were from a one-shot faster job

placement for experimentals, not from a lasting increase in wages or hours. By the fifth year, the difference between experimentals and controls had largely vanished for all but one site. And for this site (Baltimore's Options program) it is difficult to disentangle the effects of the training component from the work component, since it included a substantial human capital component and fewer work mandates.[8] Furthermore, the gains were still not large, $475 in the fifth year, but at least they came from higher wages and were lasting.[9]

The experimental evidence does not point to large and lasting benefits from employment services for less-skilled workers. Putting a person in a job does have the immediate impact of raising their earnings, which may be sufficient grounds for advocating a work-based-strategy.[10] But it does not support the hope that initial labor market experience will lead to self-sufficiency.

Nonexperimental Evidence

In this section, two types of nonexperimental evidence are reviewed. The first comes from the broad-based studies of the impact of experience on wages. The second set of studies are more tightly focused on persons with limited skills.

Claims about the long-term benefits of work partially reflect the well-documented fact that the average wages of persons with more labor market experience are higher than the wages of persons with less work experience. The growth in average wages is particularly large in the first few years on a job. Loprest (1992) estimates that the average gain in earnings during the first four years of full-year work is 7.1 percent per year for males and 5.7 for females.[11] Part of this reflects growth in wages on the job, but a large part reflects wage increases that accompany job changes. While the gains from experience decline with age, they still remain substantial. For example, the four-year growth for persons with 10 years of experience is about 10 percent per year for males and 5 percent for females.[12] Thus, if getting the target population started into the work world yields these average benefits, then there would be substantial long-run benefits from work.

The problem with using this evidence on the *average* return is that the rewards to experience vary widely across the population. The estimated average return includes persons who gain little or nothing from greater work experience. Their below-average return to experience is offset by others who gain substantially from working an extra year, thus pulling up the average. Likewise, the average gains from job changes may not be relevant for the population of policy concern. What may be stepping-stones to better jobs for some may be dead-end jobs for others. Thus, averages may tell us very little about what would happen if the target population were gaining experience.

More tightly focused studies are, therefore, required to measure future benefits to a low-skilled worker from taking a job. The key question is how to tighten the focus. One approach is to limit the analysis to persons who started with low wages. But this is likely to be misleading for two reasons. First, low-wage workers include a large number of young people who face very different prospects than the population of policy concern.[13] Again, we are faced with a counterfactual question. If a welfare recipient had taken the same low-wage job that went to a college-bound 18-year-old, would she have experienced the same wage growth? This seems

unlikely. There are too many differences between an AFDC recipient and a college-bound teenager to use one's experience to infer the experience the other would have had.[14] Second, some of these people received low wages temporarily, which would have rebounded in any case, even if the person had not landed the job. This "reversion to the mean" will tend to overstate the gains to those who were not on the rebound.

An alternative is to limit the analysis to persons who have characteristics similar to the target population, such as persons in low-income households or welfare recipients.[15] But even this will not be satisfactory if the workers in these groups are systematically different from the target population. For example, if the welfare mothers who work are more motivated or living in areas with greater access to jobs, then their future outcomes could reflect these differences rather than the causal effects of their lack of early work experience. If these individual characteristics (e.g., greater ability or motivation) are the source of their success, then we cannot use their experiences to infer what would have happened to less-skilled or less-motivated recipients had they gained early labor market experience.

A few studies have tried to estimate the returns to experience of welfare recipients, and some have tried to adjust their estimates for the fact that the welfare recipients who did work were likely to be the ones who would gain the most from work.[16] Moffitt and Rangarajan (1989) estimate wage trajectories for female heads with children less than 18 years old.[17] Their estimates indicate that the average wage growth of an 18-year-old former recipient is only 2 percent per year.[18] These very flat profiles are not directly comparable to the much steeper *experience* profiles discussed above (5.7 percent gain), which are for full-time work. Since many former recipients work part-year, their returns are proportionally lower. For example, if full-year work increases wages by 5.7 percent per year, then half-year work would increase wages by roughly 2.9 percent The relevant growth rate depends crucially on the question being asked. Do we want to know the wage gains former welfare recipients would have experienced if they had landed full-time/full-year jobs or the wage gain from the jobs they would typically get?[19]

Again, it is important to recognize that the estimated wage growth of 2 percent per year for welfare recipients who landed a job is an upper-bound estimate of the wage growth for nonworking recipients. These nonworking recipients either had less to gain from working or were less likely to be hired if they did apply for jobs. As a result, their expected wage growth is likely to be lower than the 2 percent per year wage growth for those who did land jobs.

Bartik (1997) also attempts to estimate the returns to work for welfare recipients by using a sample of female heads who received some form of public assistance in the previous year. He estimates that the female heads who worked the average number of hours per week in the previous year (31.5 hours) at the average wage rate ($5.14) experienced a 4.5 percent increase in wages.[20] Part of the difference between these estimates and those from Moffitt and Rangarajan (1989) seems to lie in the high proportion who worked last year (30.4 percent) and the high average number of hours per week worked last year.[21] It is again unlikely that those welfare recipients who did not work would have had as high a wage growth or worked as many hours. Therefore, this again forms an upper bound on what nonworking recipients would have gained had they worked.

Two other studies give indirect evidence on the future value of work experience. Burtless (1995b) traces the wage histories of a cohort of young women who received AFDC in the late 1970s. These young recipients had an average wage that fluctuated in the $6 to $7 range throughout the next 10 years. Two things are striking about Burtless's numbers. First, these wages are low. Even if current recipients could earn as much as these women who voluntarily entered the labor market, they would still earn less than $15,000 a year working at a full-time, full-year job. Second, and more importantly for our question, is the low change in wages as these women gain experience. Over a 12-year period the average wages of these former recipients grew by less than $1. This amounts to a growth rate of roughly 1 percent per year, which is even lower than from Moffitt and Rangarajan's (1989) estimate and consistent with the small long-term effects on wages of work found in the experimental literature. Corcoran and Loeb (1999) also find small average wage gains for former welfare recipients (wages rise from $6.32 to $7.86 over the course of the panel). This seems to be largely the result of former welfare recipients working few weeks and being disproportionately likely to work part-time, which has little or no effect on future wages. However, when former welfare recipients do work full-time, their future wages increase by roughly 6 percent for every year of work.

Finally, Newman (1999) has followed a sample of 350 low-wage workers households who applied for entry-level jobs in fast-food establishments.[22] Newman has recently reinterviewed 103 of these low-skilled women to find out whether their initial success at entering the work world had paid off. For roughly a third, the news is good. They have moved up in the fast-food business or obtained jobs in unionized shops and are making more than $10 per hour. Another third are earning between $5.50 and $10, while the remainder of those who initially landed jobs in the fast-food industry now find themselves unemployed or still at the minimum wage. The fact that a third are earning $10 or more and that another third experienced some growth in wages is impressive, but this must be tempered again by the caveat that these growth rates almost certainly overstate the returns to experience of people who do not seek or cannot find entry-level jobs. These job applicants had considerably higher education and experience than the typical welfare recipients. In fact, even the applicants who were turned down for the fast-food jobs had higher education than the typical welfare recipient.[23]

Impact on Earnings

Given this experimental and nonexperimental evidence, what can one conclude about the ability of less-skilled workers to attain self-sufficiency through work? While the estimates of returns to experience for less-skilled people vary widely, there is a strong consensus that they all start with low wages and that they work only part-year. Thus, even fairly high rates of growth in wages will leave them with low earnings.

This is illustrated in table 1, which shows estimated wages, earnings, earnings plus the Earned Income Tax Credit, and earnings plus the EITC and minus child care costs for a woman with two children.[24] This example uses an entry wage level of $5.50, which is consistent with evidence on the wages received by welfare recipients mandated to work.[25] Future wages are calculated under alternative assumptions about growth rates. Columns 1 and 2 use

Table 1
Growth in Wages and Earnings Net of EITC and Child Care Cost for a Mother with Two Children
(Poverty Line of $12,641)

	No Growth		Low Growth		High Growth	
	Quarter-time	Half-time	Quarter-time	Half-time	Quarter-time	Half-time
Wage						
Age						
18	$5.50	$5.50	$5.50	$5.50	$5.50	$5.50
25	$5.50	$5.50	$5.74	$5.96	$5.96	$6.47
30	$5.50	$5.50	$5.88	$6.27	$6.27	$7.15
35	$5.50	$5.50	$6.02	$6.56	$6.56	$7.83
40	$5.50	$5.50	$6.14	$6.84	$6.84	$8.50
Earnings						
Age						
18	$2,503	$5,005	$2,500	$5,005	$2,503	$5,005
25	$2,503	$5,005	$2,611	$5,427	$2,713	$5,884
30	$2,503	$5,005	$2,677	$5,708	$2,854	$6,510
35	$2,503	$5,005	$2,739	$5,974	$2,987	$7,130
40	$2,503	$5,005	$2,795	$6,221	$3,110	$7,731
Earnings plus EITC						
Age						
18	$3,504	$7,007	$3,500	$7,007	$3,504	$7,007
25	$3,504	$7,007	$3,655	$7,598	$3,799	$8,238
30	$3,504	$7,007	$3,748	$7,991	$3,996	$9,113
35	$3,504	$7,007	$3,835	$8,363	$4,182	$10,786
40	$3,504	$7,007	$3,913	$8,709	$4,354	$11,387
Earnings plus EITC minus Child Care						
Age						
18	$2,254	$4,507	$2,250	$4,507	$2,254	$4,507
25	$2,254	$4,507	$2,405	$5,098	$2,549	$5,738
30	$2,254	$4,507	$2,498	$5,491	$2,746	$6,613
35	$2,254	$4,507	$2,585	$5,863	$2,932	$8,286
40	$2,254	$4,507	$2,663	$6,209	$3,104	$8,887
Growth adjustment			0.5	0.5	1	1
Full-time adjustment			0.5	1	0.5	1

a wage growth rate of zero, as suggested by the experimental literature. Columns 3 and 4 assume that low-skilled workers who did not work would have experienced growth rates half as much as those estimated by Moffitt and Rangarajan (1989) for former welfare recipients who did work. Columns 5 and 6 are labeled "high growth" since these columns assume that low-skilled persons who did not work would have experienced the same growth as those who did work. In order to translate wage rates into annual incomes, earnings for persons working quarter-time and half-time are used. This covers the range of hours worked in the experiments reviewed in Friedlander and Burtless (1995).[26]

Since columns 1 and 2 assume no growth from experience, wages are constant at $5.50 per hour at all ages. This translates into annual earnings of $2,503 for quarter-time work and $5,005 for half-time work. The EITC raises this to $3,504 for quarter-time and $7,007 for half-time work, but the cost of child care brings net earnings back down to $2,254 and $4,507 for these two groups. With a poverty level of $12,641 for a single woman with two children, this leaves the family in poverty, even if the mother works half-time year-round. In fact, even full-time work would leave a three-person family in poverty. Thus, if the experimental evidence is correct that wages do not grow with experience, then even a full-time job will leave the family poor.

As discussed above, the nonexperimental evidence is more optimistic. If low-skilled workers experienced half the growth in wages of working recipients, then a mother working quarter-time year-round in all years between ages 18 and 40 would find herself with a wage of $6.14 by the time she reached 40, which yields annual earnings of $2,795. Her income net of child care costs plus the EITC would be $2,663. A woman working half-time would have higher earnings both because she worked more hours and because she gained more experience. As a result, the $5.50 wage would grow to $6.84 by the time this half-time worker reached 40. After the EITC and child care cost, this woman would have an income of $6,209, or 49 percent of the poverty level.

If one were to assume that the gains from work would be as high for the target population as it was for the sample of working former recipients, then the $5.50 wage at age 18 would have grown to $8.50 by the time this half-time worker reached 40. While this rapid rate of growth would have raised wages by 54 percent over this 22-year period, the person started with such a low wage that net earnings would still only be 70 percent of the poverty level for a family of three.

Conclusion

This essay has reviewed the evidence on the impact of work experience on future wages for individuals with limited skills. The fundamental difficulty in obtaining any empirical evidence is that one must infer what the person's future earnings history would have been had the person had more early labor market experience. Since it is impossible to observe persons both with and without early labor market experience, it is necessary either to use experimental evidence

or to assume that the nonexperimental evidence gives an upper bound on the benefits of experience.

The experimental literature indicates that gains are small at best and not long lasting. Earnings may go up by $300 in the first few years, but even these gains are the result of finding jobs more quickly while on the program or working more hours after the program, not receiving higher pay per hour. The nonexperimental evidence offers some evidence of future effects of work, but wages start from such a low base that even rather optimistic assumptions about growth in wage rates still lead to earnings below the poverty level for families working less than full-time.

Does this evidence mean that work programs have few benefits? The answer depends on what is counted as a benefit of work. Society (and the former welfare recipients) may value work in its own right. Work does not need to raise future wages to be valued. It is, however, important not to overstate the future benefits of work.

An important lesson can be learned from the U.S. experience with training programs.[27] During the 1960s and 1970s, training was viewed as the key to self-sufficiency. Training would provide skills that would lead people off the welfare rolls. The often-cited claim that teaching people how to fish is better than giving them fish became the conventional wisdom. But in the final analysis, teaching people how to fish well enough to support a family turned out to be considerably harder than was initially thought. The early evaluations of training programs showed little or no gains, while the more recent evaluations show modest gains for some, but not all, segments of the population. Fairly ambitious training programs raised earnings of welfare recipients on the order of $500 to $1,000, which is in the same order of magnitude as some of the higher estimates of the future returns to work programs.[28] While the benefits were small, they were larger than the costs in many cases. Thus, they met basic cost-benefit criteria. What they did not meet was the exaggerated claims that human capital programs would lead to self-sufficiency. Having discarded these programs in favor of a jobs-based strategy, we now stand the very real chance that in 10 years, after careful evaluations, we will conclude that work is also not the magic bullet.

Endnotes

1. In practice, few experiments achieve these ideals. For a discussion of these issues, see Burtless (1995a) and Heckman and Smith (1995).

2. In practice, the randomized experiments that have been implemented have offered job placement services to the experimental group but not to the control group. Differences in future outcomes, therefore, reflect both the impact of the services on the probability of obtaining a job and the impact of having a job on future outcomes.

3. While it is possible to control for differences in some indicators of skills, such as education, it is not possible to control for unobserved differences, such as ambition.

4. "Natural experiments" in which differences in job availability create the initial differences in work experiences but not future differences in wages are difficult to imagine. For example, people living in depressed areas will have a lower probability of working initially and they would also have lower wages if they worked.

5. See Gueron and Pauly (1991, table 1.1).

6. In almost all cases, the earnings gains were larger than the program cost, indicating that these strategies are cost effective.

7. See Friedlander and Burtless (1995) for the five-year follow-up.

8. The Baltimore program offered Aid to Families with Dependent Children (AFDC) recipients a variety of options, including training. The Portland JOBS program, which went even further in this direction by providing training and encouraging people to seek and accept "good" jobs rather than accepting any job, is another of a handful of jobs with multiple-year impacts. (See Manpower Demonstration Research Corporation 1998.)

9. See Friedlander and Burtless (1995, table 1-2).

10. These programs also tend to be cost effective. The small benefits are achieved with even smaller costs.

11. The difference between men and women may reflect the combined impact of lower wage growth from part-time work and greater part-time work among women.

12. See Gottschalk (1997). Furthermore, if this age premium continues to increase, the gains will be even larger for current welfare recipients who take jobs.

13. For example, Schiller's (1994) study of wage gains of minimum wage workers largely reflects the expected absolute gains for youth as they move to jobs that are not likely to be available to the target population.

14. Even if one could condition on a large number of observable factors, this would still leave many unobservable differences that are correlated with who lands the job.

15. It is necessary to assume that these variables are exogenous.

16. In ongoing work, Connolly and Gottschalk estimate both wage growth and job duration models for females disaggregated by education. Preliminary results indicate that high school dropouts experience both lower wage growth within jobs and lower growth in starting wages across jobs than females with more education. In this sense, the jobs filled by high school dropouts are "dead-end jobs." Connolly and Gottschalk also find that high school dropouts are less likely to leave their jobs. Furthermore, those dropouts with the lowest wage growth are the least likely to leave their jobs. In this sense, high school dropouts are "stuck" in "dead-end jobs."

17. Their focus is on whether welfare participation has a causal impact on wages but their estimates yield wage growth rates for recipients, which is the focus of this review. Since welfare participation is based on income, they adjust their estimates to take account of the fact that welfare recipients are likely to have lower wages simply as a result of selection into the program, whether or not being in the program has any causal effect on wages. The methodological problem is how to determine whether low wages cause participation or participation causes low wages. One approach is to find "instruments," which are variables that mimic what random assignment would have done. For example, Moffitt and Rangarajan use the AFDC guarantee and family size as variables that affect participation but not wages. If women with larger families or living in high-benefit states are more likely to participate in AFDC, then this exogenous variation can be used to infer the impact of participation on wages.

18. This is based on the coefficients on age and age squared of .024 and –.0002 in column 1 of table 6.6.

19. Moffitt and Rangarajan answer the latter question.

20. Bartik (1997, table 9). Working more hours or at a higher wage was associated with larger wage gains.

21. Committee on Ways and Means (1993, table 31) indicates that only 6.4 percent of AFDC mothers worked in 1991.

22. About a quarter lived in households receiving public assistance.

23. See Lennon and Newman (1995).

24. Child care costs are taken from Blank (1997, table 7.1), and the EITC is calculated under 1998 rules. The EITC is equal to 40 percent of earnings up to a maximum of $3,656, which is reached when earnings equal $9,140. Persons with income between $9,140 and $11,930 receive the maximum benefit. The EITC benefit is then reduced by 21.06 percent for earnings above $11,930.

25. See Holcomb et al. (1998, table 8.1). While some sites had higher wages, there is a clear inverse relationship between the percentage of welfare recipients who found work and their average wage. Culpeper, Virginia, had the lowest average wage ($5.37) but the highest proportion of recipients who found work (66 percent).

26. Friedlander and Burtless (1995, table 4-1) show average total earnings throughout the experiment for four sites. These can be converted into annual earnings. Dividing by $5.50 yields the number of hours a person would have had to work at the $5.50 rate in order to achieve the average annual earnings. Experimentals in Arkansas had the lowest average annual earnings ($1,490) and Baltimore had the highest ($4,221). Using 35 hours per week as full-time, this translates to .14 of full-time for Arkansas and .42 for Baltimore.

27. See Gottschalk (1997) for a discussion of this issue.

28. While it was expected that training would raise wages, most of the increase in earnings reflected increases in hours worked rather than higher wages. Programs for adult men showed very little effect. For a review of the literature on evaluation of training programs, see LeLonde (1995).

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Chapter 9

The Role of Job Turnover in the Low-Wage Labor Market

Julia Lane

Introduction

Turnover is job change—workers changing firms and firms shedding and hiring workers. Turnover is sometimes seen as an indicator of the dynamism of the economy, since without turnover, labor cannot get reallocated from less-productive to more-productive uses. Indeed, voluntary job change usually results in gains to the worker. Involuntary job loss also imposes costs on workers, however, particularly on low-wage workers who are least likely to be able to bear the cost of being without work.

In the subsequent sections, we discuss the impact of turnover on low-wage workers in more detail. We begin by describing turnover in more detail, examining why it occurs, and then discuss its pervasiveness. We then describe the consequences of turnover, particularly in the low-wage labor market, and evaluate potential policy recommendations.

What Is Turnover?

Turnover is the result of both quits and layoffs. Thus, some turnover is a result of jobs in one firm being destroyed and jobs in another firm being created—and hence due to the reallocation

of jobs across the economy in response to changes in product demand. A majority of job changes, however, are because workers reshuffle across the same set of jobs, and this worker reallocation occurs over and above job reallocation. There are enormous amounts of both job and worker reallocation in the U.S.—the annual job reallocation rate is about 20 percent; the quarterly worker reallocation rate exceeds 40 percent.[1] In other words, almost one job in five is destroyed or created every year, while out of every 10 jobs, four will be occupied by new people within a quarter.

Although most jobs are short, most people are in long-term jobs. The picture of enormous job change must be tempered by the realization that while most job spells end relatively quickly, most people are in long-lasting jobs. Thus, although almost one in four new jobs ends within a quarter,[2] and roughly 20 percent of workers have been on the job for less than one year,[3] average tenure for men in 1991 was almost 8 years.[4]

Low-wage workers have shorter job tenure and a greater number of job spells than other workers. The impact of this on well-being is clear—the difference between poor and nonpoor low-wage workers is that poor workers are employed for roughly the same number of hours per week but 20 percent fewer weeks per year.[5] Thus, low wages, combined with frequent spells without a job, suffice to push workers below the poverty threshold.

The causes and consequences of turnover are complex. Clearly, turnover can be seen as a joint employer/worker decision: If the change is initiated by the employer, it is called a layoff; if by the worker, it is called a quit. Thus, understanding the causes requires understanding the decisionmaking process of both the employer and the employee. Describing the consequences is equally tricky, since turnover initiated by the worker is often likely to result in her getting a better job while that initiated by the firm may have adverse consequences.

Less-educated workers are less likely to jump jobs and more likely to be pushed out. One study in particular has pointed out that these workers are more likely to have new jobs than the most educated (22.7 percent of high school dropouts were in jobs with less than one year's tenure in 1996, compared with 16.6 percent of college graduates) and are also less likely to be offered health insurance when they change jobs (15.4 percent are offered coverage in new jobs, compared with 45.2 percent of college graduates), and this likelihood has declined dramatically in the past 15 years.[6]

Why Does Turnover Occur?

Turnover is a result of both worker and firm decisions. Thus, the answer depends on separating out not only turnover driven by job reallocation and by "churning" (worker turnover over and above job reallocation) but also, within the churning component, understanding the contribution made by the worker and by the firm.

Job Reallocation and Turnover

The job reallocation part of turnover is a result of job creation and destruction across firms and industries. This is clearly part of the market reallocation process—indeed, job creation and destruction rates have been used by the Organization for Economic Cooperation and Development (OECD) as an index of the flexibility of the labor market.

While job reallocation may be necessary in an efficient economy, this does not mean that there are no underlying costs. In particular, older, long-tenured individuals who are displaced suffer quite large and permanent earnings losses. One study estimates that earnings on new jobs are 25 percent lower even five years after job loss and that the present discounted value of these losses can be as high as $80,000.[7] Furthermore, workers who have been displaced often suffer multiple job losses in the years after being displaced, with all the concomitant negative effects.[8] The dual labor market literature suggests that shocks to product demand are borne by a buffer, secondary labor market, composed primarily of less-educated, less-tenured minority workers, who are easier to shed and rehire than workers in the primary labor market. The employment ratio for nonwhite men is almost three times as responsive to the prime-age male unemployment rate as for white men, and teenagers and young women bear 50 percent of the cyclical variation in employment.[9]

Turnover as a Firm Strategy

Why do firms churn workers—why do some firms explicitly have high turnover policies? Firms make different management decisions in setting an employment contract because there are different costs associated with hiring and firing workers. The hiring costs include advertising, screening, and training; the firing costs include work disruption, loss of the worker's firm-specific knowledge, and severance benefits. These costs clearly vary greatly depending on the type of worker and the nature of the production process. Consequently, we would expect to see quite different levels of turnover across firms, industries, and types of workers.

Adjustment costs are high if production processes are complex. Thus, turnover in retail trade is higher than in manufacturing—and turnover should increase economywide as the economy moves from manufacturing and toward services. Similarly, if the task is complex and difficult to monitor, it may make economic sense to pay a higher efficiency wage to get the worker to work harder—which has the additional effect of reducing turnover. Firms may also offer implicit contracts to those workers who are averse to wage variability in order to guard against economic downturns. Wages may be set high and turnover lower for "insider" workers who possess valuable amounts of firm-specific human capital. These factors all have consequences for workers—turnover should be higher for those workers performing simple, easily monitored tasks, junior workers who have little firm-specific human capital, and younger workers who are less averse to wage variation.

Different firms have different production processes and different turnover rates. Even within the retail trade industry, a coffee franchise like Starbucks has explicitly chosen a relatively high-wage, high-benefit, low-turnover strategy to sell its coffee, while other shops will produce a different type of product with a different personnel strategy.[10]

Turnover as a Worker Choice

Why might workers have different turnover rates? Different types of workers may also have different levels of attachment to the job and hence have different quit rates. Young workers are more likely to search for new jobs than old; unmarried workers are less attached than married ones; on average, women are less attached than men. Clearly, if job search is the motive, we would expect quits to be cyclical—higher in a boom period, where there are more jobs available, and lower in a recession.

Turnover as a Joint Worker-Firm Decision

Turnover can also be seen as a joint decision. The discussion above has essentially dichotomized the worker and firm decisions. If one thinks of the job match process as being a little like a marriage, undertaken by two consenting parties, then the separation process can be seen as a divorce initiated by one side as a result of the dissatisfaction with the returns from the match. If this is the view of the world, then many simple matches will dissolve quickly—turnover will be high—because it will be evident to both sides that it is not working. It is also possible that workers in low-wage jobs are less likely to be equal partners in the marriage and are therefore subject to more decisions decided by the more powerful partner, the employer.[11] For very complex matches, such as baseball managers, lawyers, or accountants, it may take a long time for this to become evident.[12] Again, the end result is that workers who are less educated, or who engage in tasks that are less complex, are more likely to have high turnover and to have short-tenure jobs.

Extent of Turnover

What is the level of turnover in the economy? Just as there is both a worker and a firm side to the source of turnover, there are two ways of determining the extent of turnover. The first is to ask, through worker-based surveys, how many jobs a worker has had within a given time period. The second is to use employer-based surveys or administrative records to determine how many workers have left or been hired, again, within a given time period. Researchers using the former approach, with Survey of Income and Program Participation (SIPP) data, estimate that the average monthly turnover rate in the U.S. economy in 1991 was 7.1 percent.[13] Using the latter, other analysts estimate that quarterly turnover in the early 1980s was 23 percent.[14, 15] Turnover thus depends on the time period within which it is measured, as well as the unit of analysis. It is worth noting that the source of turnover also depends on the business cycle—downturns in the economy, while not affecting overall turnover, will increase the involuntary component of turnover by increasing layoffs and reducing quits.[16]

Turnover also varies by industry, skill, sex, and age—the average number reported in the previous paragraph hides a great deal of variation. For low-wage workers, the news is almost all bad. Low-skilled and young workers experience more turnover than older, more highly educated workers. Workers in complex jobs, such as in manufacturing, are likely to experience

lower turnover and higher wages than workers in retail sales, who tend to be low-wage workers. New and small firms, which are also more likely to pay lower wages, should have higher turnover; new job matches, paying entry-level wages, should dissolve faster than long ones. The consequences of this are well illustrated by Burtless (elsewhere in this volume), who notes that although over 1.2 million cashier jobs will be available every year until 2006, fewer than 1 out of 6 of these represent new job openings—the rest is turnover. Alternatively, of 11 low-skill occupations with 6.5 million job openings per year, only 1 million are new jobs.

Turnover by Industry

Table 1 demonstrates that turnover, however measured, varies dramatically by industry. It is highest in the construction and retail trade industries. It is lowest in manufacturing; finance,

Table 1
Monthly Turnover Rates by Industry

	Average Employment (thousands)	**Turnover Actions**	**Proportion of Turnover** (percent)	**Turnover Rate** (percent)	**Quarterly Turnover Rate from UI Data*** (percent)
Agriculture, Forestry, and Fishing	1,698	245	3.26	14.43	47.96
Mining	623	38	0.51	6.10	26.00
Construction	4,973	529	7.05	10.64	38.14
Manufacturing	20,863	975	12.99	4.67	20.27
Transportation, Communication, and Utilities	7,463	350	4.66	4.69	17.43
Wholesale Trade	4,421	283	3.77	6.40	19.05
Retail Trade	17,641	1,737	23.14	9.85	26.75
Finance, Insurance, Real Estate	6,621	387	5.16	5.85	14.88
Business and Related Services	5,589	712	9.49	12.74	21.83
Personal Services	2,825	330	4.40	11.68	
Entertainment and Recreation	1,241	218	2.90	17.57	
Professional and Related Services	25,441	1,431	19.07	5.62	
Public Admin.	5,639	270	3.60	4.79	14.19
Total	105,038	7,505	100.00	7.15	23.04

Source: Ryscavage (1997), table E, p. 5 and author's calculations; *Anderson and Meyer (1994).

insurance, and real estate; and public administration. Two high-turnover sectors, retail trade and professional services, while accounting for 1 in 5 jobs, account for almost half of all worker-based turnover. It is also worth noting that turnover rates are more than twice as high for small and new employers as for large, older employers.[17]

These employer differences have important implications for the employment of low-wage workers. Clearly, high-turnover firms are more likely to have job openings than low-turnover firms, but, just as clearly, employment with these firms is less likely to last and less likely to be one in which wages grow. For example, the new and small firms with high turnover are also likely to have less capital and train their workers less, since this reduces hiring and firing costs and makes turnover less costly. It is also possible that small firms have less-efficient personnel screening mechanisms—which is what leads to a greater number of bad hires and, consequently, greater turnover—but this also may mean that there are fewer or poorer skills acquired on the job. The high-turnover industries are also those where the production tasks are less complex, so on average the skills acquired in retail trade, for example, are less valuable than those acquired in manufacturing or in finance, insurance, and real estate.

In sum, the high-turnover industries are also those most likely to hire low-wage workers. Some researchers point out that forced exiters from welfare are twice as likely to get jobs in the retail trade sector as are other workers;[18] similarly, 28 percent of jobs offered to welfare recipients were in the highest-turnover industry (business services).[19]

Turnover by Worker Characteristics

Turning to the worker side of the story, table 2 demonstrates that turnover is much higher for young than for old workers. It should be noted that this is not necessarily a negative for this group: many writers have documented that mobility among younger workers leads to higher earnings and greater earnings growth. In fact, the average length of time spent looking for work after a job change is only 1.7 months for young women and 2.1 months for young men.[20] However, adult men with a high school education change jobs almost 40 percent more often than do college-educated males. This is of particular concern, both because this group takes almost twice as long to find a new job as do youth and because Farber (1997a) shows that prior mobility is a good predictor of the probability of leaving a new job.[21]

Table 2
Turnover by Worker Characteristics

	Average Employment (thousands)	Turnover Rate (%)
Both sexes ages 16–24	19,366	15.8
Men ages 25–54	39,892	4.9
Women ages 25–54	37,172	5.8
College-educated	11,837	4.0
High school	1,080	5.5

Source: Ryscavage, table F, p. 5

Thus, those workers who have moved a lot continue to move a lot, and if there are intervening spells of joblessness, those workers have fewer weeks worked in the year. There are consequences other than lost earnings capacity. In 1996, almost one in four workers with less than high school education was in a job lasting less than a year, compared with only one in six college-educated workers.[22] This is important, because predicted job tenure is an important determinant of the training decision and training is very closely related to wage growth. Workers who are likely to leave the job for nonemployment are 17 percent less likely to receive training.[23]

Consequences of Turnover

What are the consequences of turnover for the firm, for the worker, and for the economy? They can be huge. Job loss has been valued at $76 billion at its peak in 1991—by estimating the value of lost earnings for the worker and multiplying by the number of workers experiencing job loss—although, as noted, some of this loss may be efficient for the firm and the overall economy.[24]

Effect on Firms

The discussion above suggests that firms choose the optimal amount of job turnover and, consequently, that there should be no impact on firm survival. Empirical work, however, suggests that employers with high turnover rates are less likely to survive—possibly because the entrepreneur was not omniscient.[25] Quite apart from the survival issue, however, the consequences of a firm's decision to have high turnover are that it is less likely to invest in human capital and training, there will be less worker-to-worker transfer of firm-specific knowledge, and it is less likely to offer fringe benefits, including health insurance.

Effect on Workers

On the worker side, for some workers—particularly young men—voluntary job mobility increases earnings and earnings growth. Job changing can account for one-third of the increase in real wages in the first 10 years in the labor market.[26] However, the effects of job change are fundamentally different for less-skilled workers—affecting work time, skills, wage levels, wage growth, and fringe benefits.

Unskilled workers suffer longer subsequent spells of unemployment after a job change and consequently lower annual earnings. The lost work time is compounded by lost skills, since long spells of unemployment, even for skilled workers, lead to a depreciation of skills, pushing previously high-wage workers into the low-wage, unskilled category.[27] If the source of the turnover is job loss, workers have lower employment probabilities and higher probabilities of part-time work and lower earnings, and these costs are higher for the least-educated workers.[28] Earnings losses from displacement are quite large and persistent;[29] estimates range from 10 to 25 percent several years after the displacement. The effect on the growth of wages, as well as

wage levels, can be important, too. Another effect of higher turnover probability is reduced training, which results in flatter earnings.[30] The effect of being laid off can also stigmatize a worker as a "lemon." [31] Finally, there is some evidence that new jobs have fewer benefits, such as health insurance and other fringe benefits.[32]

Three Roles for Policymakers

High and pervasive turnover is a characteristic of the U.S. labor market. The discussions above have indicated that while turnover may be an efficient way of reallocating workers from one part of the economy to another, or from one job to another, less-educated workers are disproportionately affected, and they may not be well placed to bear the costs. Certain types of firms, particularly new and small firms, also have disproportionately high turnover, possibly because of inefficient management, and this may affect their survival probabilities. This suggests three roles for policy: one aimed at changing worker characteristics, another at changing job characteristics, and the third at job placement strategies.

The Role of Education

A major role for policymakers is to improve training, both prior to and during employment. The results of every study point directly to the importance of education—high school dropouts are much more likely to be churned through the labor market than college graduates. Since it is clearly not feasible to turn all dropouts into college graduates, it may be more useful to look directly at what employers want. This would reduce turnover by making the employees more valuable and more costly to fire. A study using matched surveys of employers and employees suggests that workers want employees to be able to read, do arithmetic, deal with customers, possess motivation, and be polite.[33]

Classroom-based training programs have had mixed success, but there is some evidence in both the U.S. and Germany that job-based training programs help reduce turnover and teach basic skills.[34] Although it is difficult to identify the direction of causality between turnover and training, low-turnover firms have a much higher incidence of training, particularly formal training, than do high-turnover firms.[35] The average annual expenditure on training could be as high as $1,433 per worker; clearly expenditures at this level would provide a strong disincentive to shed workers in economic downturns.

The Role of the Firm and Job Characteristics

There is also a role for policymakers in changing job characteristics. Some suggest that U.S. policy has a "clear pro-layoff bias" and recommend policy to encourage companies to reduce hours, rely on attrition, and look at other alternatives to layoff.[36] In particular, they recommend expanding the use of short-time compensation programs, encourage work sharing, provide incentives for workplace training, and adjust the unemployment insurance tax schemes in different states.

The use of short-time compensation and work-sharing schemes are possibly the most interesting of these ideas. The essential concept is relatively clear. If a firm needs to lay off the equivalent of 100 full-time workers, it could either shed 100 workers, forcing them to bear the full cost of layoff, or it could reduce the work time of 200 workers by half. The advantage of the latter situation is both that the cost of job loss is not concentrated on just a few workers and that workers have the time to look for another job if the downturn in demand is temporary.

How can policymakers encourage such programs? Abraham and Houseman suggest that there are three major impediments to encouraging such work-sharing plans in the U.S. The first is the structure of the unemployment insurance system, which effectively subsidizes some of the cost of job loss. The second is the fact that employers are likely to continue to pay fringe benefits to workers on short-time compensation schemes, which is extremely costly. The third is that there is a great deal of red tape associated with instituting a short-term compensation scheme, which effectively discourages employer participation.

The Role of Placement Services

Policymakers can also use placement services to help reduce turnover—by using administrative data to identify low-turnover employers. Despite the fact that some note that state employment offices are viewed with some suspicion by employers, who regard referees as "lemons" and prefer to rely on word of mouth,[37] placement services can provide a valuable information function in helping workers either to retain jobs or to choose jobs that have a higher probability of retention. Clearly, high-turnover employers are the ones most likely to be hiring workers, everything else equal, and these are exactly the kinds of employers who are likely to churn workers back out into nonemployment. If placement services can identify these firms, there are several options. Program counselors can warn workers about the firm's track record (if permitted by law); they can investigate the source of such high-turnover strategies; they can counsel workers about how to use these jobs as steps to better jobs; or they can avoid placing workers in these types of firms. Identification is feasible at the state level, by means of administrative unemployment insurance record data. Indeed, this was the focus of a Joint Center for Poverty Research conference, "Evaluating State Policy: The Effective Use of Administrative Data," which was held at Northwestern University on June 16–17, 1997.

This approach can be effective. Welfare recipients who are placed in low-turnover firms are much less likely to leave those firms and return to welfare.[38] They also develop in some detail ways to identify firms that offer welfare recipients jobs with "successful" outcomes—jobs where workers stay for at least four quarters and do not return to welfare. Placement of welfare recipients in some industries (notably, health services and professional services) increases the probability of the worker still being employed in the subsequent year, in contrast to those placed in retail trade.[39] The characteristics of the job, particularly the wage and industry, matter.

Endnotes

1. For a survey of job flows, see Davis and Haltiwanger (1998); the worker reallocation calculation is an average derived from different state-level data (e.g., Anderson and Meyer 1994; Lane et al. 1996).
2. Anderson and Meyer (1994).
3. Farber (1998).
4. Valletta (1997).
5. Long and Martini (1991).
6. Farber (1998).
7. Jacobson et al. (1992).
8. Huff Stevens (1997).
9. Summers and Clark (1981) .
10. Kremer (1993).
11. Lindbeck and Snower (1988).
12. Lane and Parkin (1998).
13. Ryscavage (1997).
14. Anderson and Meyer (1994).
15. Lane, Stevens, and Burgess (1996) find a similar level for Maryland in the 1990s.
16. Campbell (1997).
17. Lane, Stevens, and Burgess (1996).
18. Lawson and King (1997).
19. Lane and Stevens (1997).
20. Ryscavage (1997).
21. Farber (1997a).
22. Farber (1997b).
23. Royalty (1996).
24. Hall (1995).
25. Lane, Isaac, and Stevens (1996).

26. Topel and Ward (1992).
27. Topel (1993).
28. Farber (1997).
29. Fallick (1996).
30. Royalty (1996).
31. Gibbons and Katz (1991).
32. Farber (1997b), p. 119.
33. Holzer (1996).
34. Lynch (1991); Lynch and Black (1998).
35. Frazis et al. (1998).
36. Abraham and Houseman (1992), p. 132.
37. Holzer (1996).
38. Lane and Stevens (1995); Lane and Stevens (1997).
39. Bartik (1997).

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Appendix

Statistical Data and Background Information

List of Figures

List of Tables

Part I
Overall Labor Market

Table 1.1
Civilian Labor Force Participation Rate and Seasonally Adjusted Unemployment Rate: 1970–98

Year	Percentage of Population in Labor Force	Percentage of Labor Force Unemployed
1970	60.4	4.9
1971	60.2	5.9
1972	60.4	5.6
1973	60.8	4.9
1974	61.3	5.6
1975	61.2	8.5
1976	61.6	7.7
1977	62.3	7.1
1978	63.2	6.1
1979	63.7	5.8
1980	63.8	7.1
1981	63.9	7.6
1982	64.0	9.7
1983	64.0	9.6
1984	64.4	7.5
1985	64.8	7.2
1986	65.3	7.0
1987	65.6	6.2
1988	65.9	5.5
1989	66.5	5.3
1990	66.5	5.6
1991	66.2	6.8
1992	66.4	7.5
1993	66.3	6.9
1994	66.6	6.1
1995	66.6	5.6
1996	66.8	5.4
1997	67.1	4.9
1998	67.1	4.5

Source: U.S. Department of Labor: Bureau of Labor Statistics: *Employment and Earnings* (January 1999).

Figure 1.1a
Civilian Labor Force Participation Rate, 1970–98

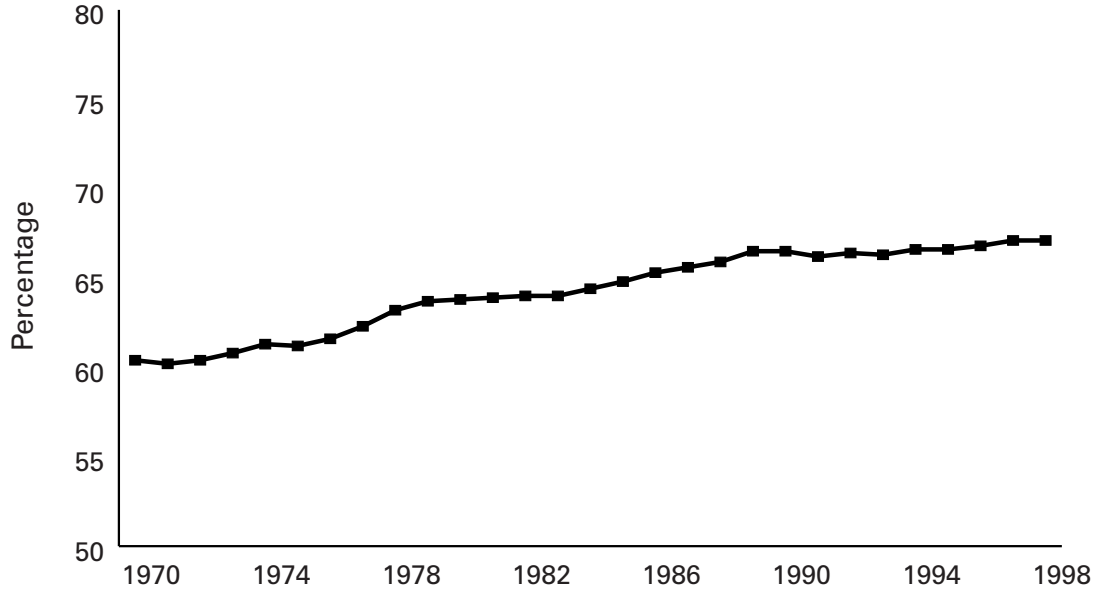


Figure 1.1b
Seasonally Adjusted Civilian Unemployment Rate, 1970–98

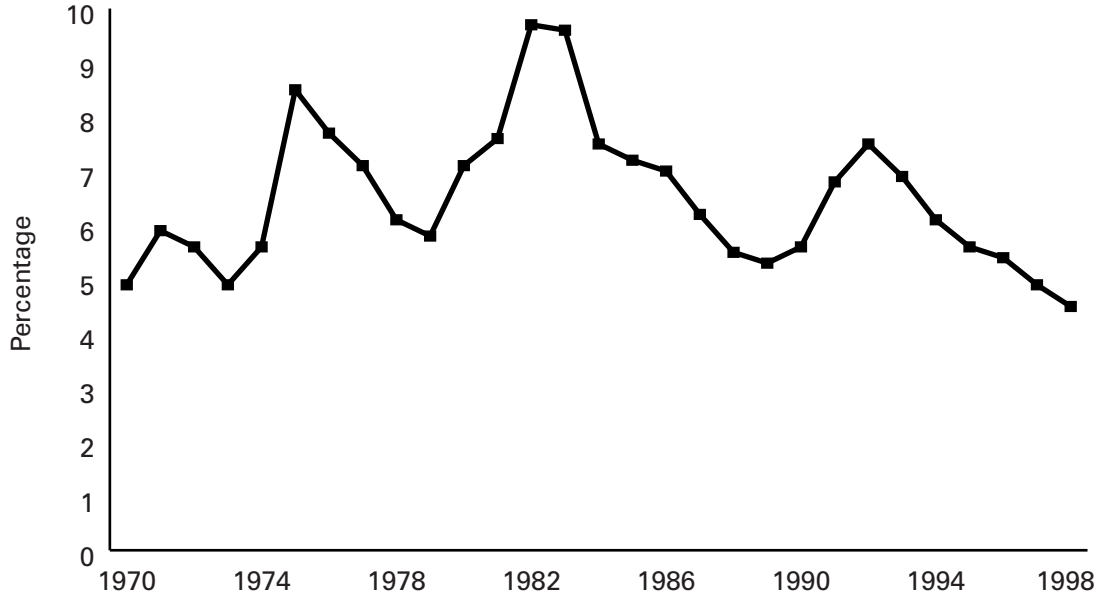


Table 1.2
Civilian Labor Force Participation Rate, by Gender and Race: 1989–97

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
All Persons	65.9	66.5	66.5	66.1	66.4	66.3	66.6	66.6	66.8	67.1
Male	76.4	76.6	76.4	75.6	75.8	75.4	75.1	75.0	74.9	75.0
Female	56.6	57.4	57.5	57.4	57.8	57.9	58.8	58.9	59.3	59.8
White	66.2	66.7	66.9	66.7	66.8	66.8	67.1	67.1	67.2	67.5
Black	64.4	64.8	64.0	63.2	63.9	63.2	63.4	63.7	64.1	64.7
Hispanic	67.7	67.9	67.4	66.4	66.8	66.2	66.1	65.8	66.5	67.9

Source: U.S. Department of Labor: Bureau of Labor Statistics: as published in *Statistical Abstract of the United States* (1995–98).

Figure 1.2
Civilian Labor Force Participation Rate, by Gender, 1989–97

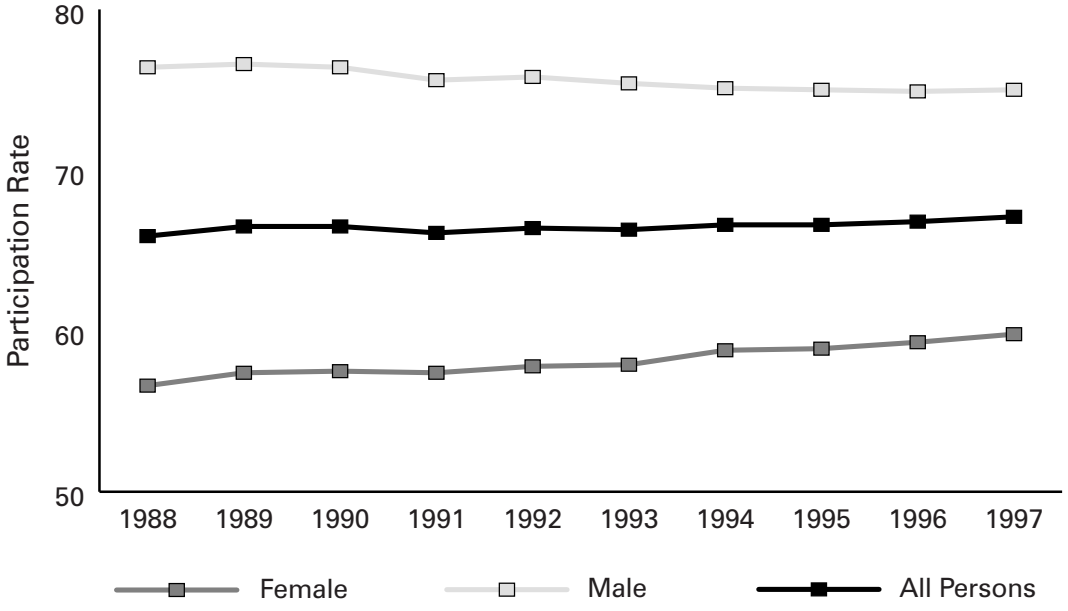


Table 1.3
Seasonally Adjusted Civilian Unemployment Rate, by Gender and Race, 1988–98

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total, 16 years and over	5.5	5.3	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5
Male	5.5	5.2	5.7	7.2	7.9	7.2	6.2	5.6	5.4	4.9	4.5
Female	5.6	5.4	5.5	6.4	7.0	6.6	6.0	5.6	5.4	5.0	4.6
White	4.7	4.5	4.8	6.0	6.6	6.1	5.3	4.9	4.7	4.2	3.9
Black	11.7	11.4	11.4	12.4	14.2	13.0	11.5	10.4	10.5	10.1	8.9
Hispanic	8.4	8.0	8.2	9.9	11.6	10.8	9.9	9.3	8.9	7.7	7.2

Source: Statistical Abstract of the United States (1995–98), U.S. Department of Labor: Bureau of Labor Statistics: *Employment and Earnings* (January 1999).

Figure 1.3
Seasonally Adjusted Civilian Unemployment Rate, by Race, 1988–98

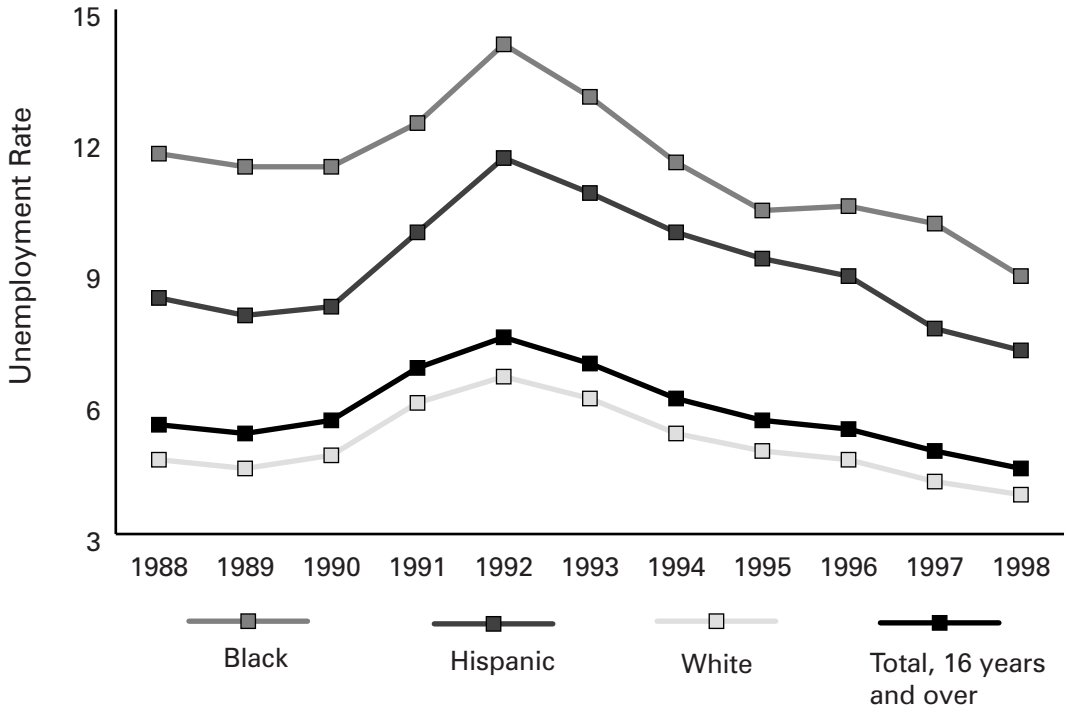


Table 1.4
Seasonally Adjusted Civilian Unemployment Rate, by State: 1988–97

State	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Alabama	7.2	7.0	6.9	7.2	7.4	7.6	6.0	6.3	5.1	5.1
Alaska	9.3	6.7	7.0	8.7	9.2	7.7	7.8	7.3	7.8	7.9
Arizona	6.3	5.2	5.5	5.8	7.6	6.3	6.4	5.1	5.5	4.6
Arkansas	7.7	7.2	7.0	7.4	7.3	6.2	5.3	4.9	5.4	5.3
California	5.3	5.1	5.8	7.7	9.3	9.4	8.6	7.8	7.2	6.3
Colorado	6.4	5.8	5.0	5.1	6.0	5.3	4.2	4.2	4.2	3.3
Connecticut	3.0	3.7	5.2	6.8	7.6	6.3	5.6	5.5	5.7	5.1
Delaware	3.2	3.5	5.2	6.3	5.3	5.3	4.9	4.3	5.2	4.0
District of Columbia	5.0	5.0	6.6	7.8	8.6	8.6	8.2	8.9	8.5	7.9
Florida	5.0	5.6	6.0	7.4	8.3	7.0	6.6	5.5	5.1	4.8
Georgia	5.8	5.5	5.5	5.0	7.0	5.8	5.2	4.9	4.6	4.5
Hawaii	3.2	2.6	2.9	2.8	4.6	4.3	6.1	5.9	6.4	6.4
Idaho	5.8	5.1	5.9	6.2	6.5	6.2	5.6	5.4	5.2	5.3
Illinois	6.8	6.0	6.2	7.2	7.6	7.5	5.7	5.2	5.3	4.7
Indiana	5.3	4.7	5.3	6.0	6.6	5.4	4.9	4.7	4.1	3.5
Iowa	4.5	4.3	4.3	4.6	4.7	4.0	3.7	3.5	3.8	3.3
Kansas	4.8	4.0	4.5	4.5	4.3	5.0	5.3	4.4	4.5	3.8
Kentucky	7.9	6.2	5.9	7.5	6.9	6.2	5.4	5.4	5.6	5.4
Louisiana	10.9	7.9	6.3	7.2	8.2	7.5	8.0	6.9	6.7	6.1
Maine	3.8	4.1	5.2	7.6	7.2	7.9	7.4	5.7	5.1	5.4
Maryland	4.5	3.7	4.7	6.0	6.7	6.2	5.1	5.1	4.9	5.1
Massachusetts	3.3	4.0	6.0	9.1	8.6	6.9	6.0	5.4	4.3	4.0
Michigan	7.6	7.1	7.6	9.3	8.9	7.1	5.9	5.3	4.9	4.2
Minnesota	4.0	4.3	4.9	5.1	5.2	5.1	4.0	3.7	4.0	3.3
Mississippi	8.4	7.8	7.6	8.7	8.2	6.4	6.6	6.1	6.1	5.7
Missouri	5.7	5.5	5.8	6.7	5.7	6.5	4.9	4.8	4.6	4.2
Montana	6.8	5.9	6.0	7.1	6.9	6.1	5.1	5.9	5.3	5.4
Nebraska	3.6	3.1	2.2	2.8	3.0	2.7	2.9	2.6	2.9	2.6
Nevada	5.2	5.0	4.9	5.6	6.7	7.3	6.2	5.4	5.4	4.1
New Hampshire	2.4	3.5	5.7	7.2	7.5	6.6	4.6	4.0	4.2	3.1
New Jersey	3.8	4.1	5.1	6.7	8.5	7.5	6.8	6.4	6.2	5.1
New Mexico	7.8	6.7	6.5	7.1	7.0	7.7	6.3	6.3	8.1	6.2
New York	4.2	5.1	5.3	7.3	8.6	7.8	6.9	6.3	6.2	6.4
North Carolina	3.6	3.5	4.2	5.8	6.0	4.9	4.4	4.3	4.3	3.6
North Dakota	4.8	4.3	4.0	4.3	5.1	4.4	3.9	3.3	3.1	2.5
Ohio	6.0	5.5	5.7	6.4	7.3	6.5	5.5	4.8	4.9	4.6
Oklahoma	6.7	5.6	5.7	6.7	5.7	6.1	5.8	4.7	4.1	4.1
Oregon	5.8	5.7	5.6	6.1	7.6	7.3	5.4	4.8	5.9	5.8
Pennsylvania	5.1	4.5	5.4	7.0	7.6	7.1	6.2	5.9	5.3	5.2
Rhode Island	3.1	4.1	6.8	8.6	9.0	7.8	7.1	7.0	5.1	5.3
South Carolina	4.5	4.7	4.8	6.3	6.3	7.6	6.3	5.1	6.0	4.5
South Dakota	3.9	4.2	3.9	3.6	3.2	3.6	3.3	2.9	3.2	3.1
Tennessee	5.8	5.1	5.3	6.7	6.4	5.7	4.8	5.2	5.2	5.4
Texas	7.3	6.7	6.3	6.7	7.7	7.2	6.4	6.0	5.6	5.4
Utah	4.9	4.6	4.3	5.0	5.0	3.9	3.7	3.6	3.5	3.1

Table 1.4 (cont.): Seasonally Adjusted Civilian Unemployment Rate, by State: 1988–97

State	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Vermont	2.8	3.7	5.0	6.4	6.7	5.5	4.7	4.2	4.6	4.0
Virginia	3.9	3.9	4.3	5.9	6.4	5.1	4.9	4.5	4.4	4.0
Washington	6.2	6.2	4.9	6.4	7.6	7.6	6.4	6.4	6.5	4.8
West Virginia	9.9	8.6	8.4	10.6	11.4	10.9	8.9	7.9	7.5	6.9
Wisconsin	4.3	4.4	4.4	5.5	5.2	4.7	4.7	3.7	3.5	3.7
Wyoming	6.3	6.3	5.5	5.2	5.7	5.5	5.3	4.8	5.0	5.1
U.S. Total	5.5	5.3	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9

Source: U.S. Department of Labor: Bureau of Labor Statistics: *Geographic Profile of Employment and Unemployment,* 1988–97.

Figure 1.4
Unemployment Rate, by State, 1997

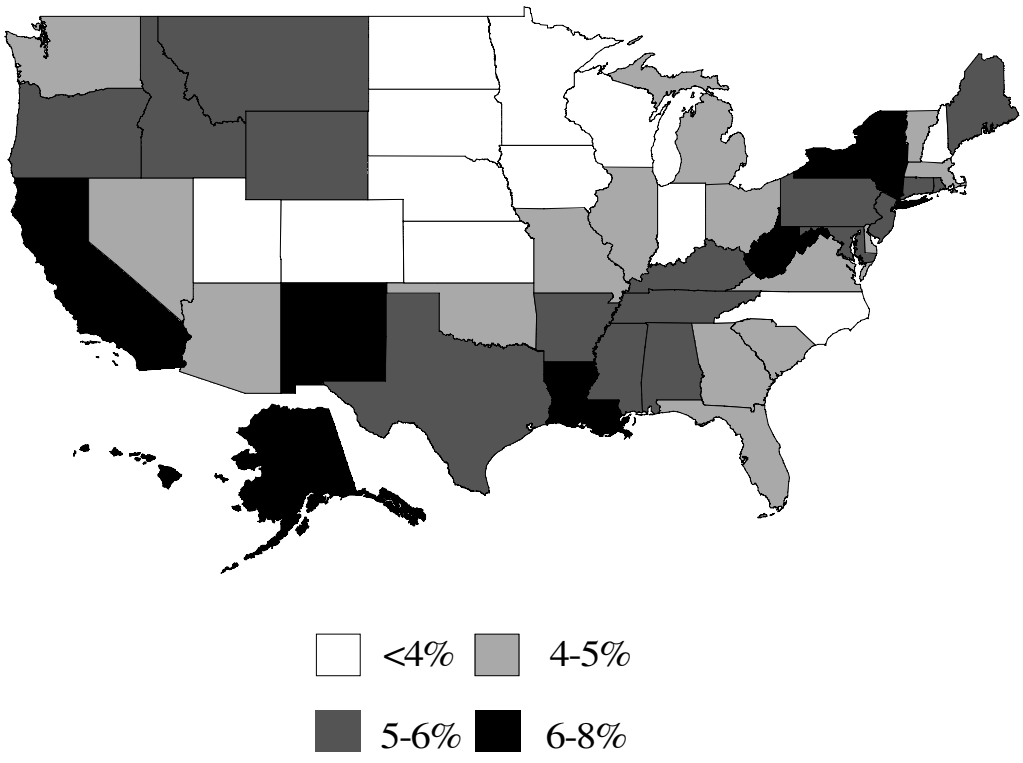


Table 1.5
Value of the Federal Minimum Wage Rate, 1960 to 1998

Year	Nominal Dollars	CPI-U	Constant (1998) Dollars
1960	$1.00	29.6	$5.51
1961	1.15	29.9	$6.27
1962	1.15	30.2	$6.21
1963	1.25	30.6	$6.66
1964	1.25	31.0	$6.57
1965	1.25	31.5	$6.47
1966	1.25	32.4	$6.29
1967	1.40	33.4	$6.83
1968	1.60	34.8	$7.49
1969	1.60	36.7	$7.11
1970	1.60	38.8	$6.72
1971	1.60	40.5	$6.44
1972	1.60	41.8	$6.24
1973	1.60	44.4	$5.87
1974	2.00	49.3	$6.61
1975	2.10	53.8	$6.36
1976	2.30	56.9	$6.59
1977	2.30	60.6	$6.19
1978	2.65	65.2	$6.63
1979	2.90	72.6	$6.51
1980	3.10	82.4	$6.13
1981	3.35	90.9	$6.01
1982	3.35	96.5	$5.66
1983	3.35	99.6	$5.48
1984	3.35	103.9	$5.26
1985	3.35	107.6	$5.07
1986	3.35	109.6	$4.98
1987	3.35	113.6	$4.81
1988	3.35	118.3	$4.62
1989	3.35	124.0	$4.40
1990	3.80	130.7	$4.74
1991	4.25	136.2	$5.09
1992	4.25	140.3	$4.94
1993	4.25	144.5	$4.79
1994	4.25	148.2	$4.67
1995	4.25	152.4	$4.55
1996	4.75	156.9	$4.93
1997	5.15	160.5	$5.23
1998	5.15	163.0	$5.15

Source: U.S. Department of Labor: Employment and Standards Administration: Internet site, accessed 11 Feb. 1999 (http:www.dol.gov/dol/esa/public/minwage/main.htm).

Figure 1.5
Value of the Federal Minimum Wage Rate in Constant (1998) Dollars, 1960–98

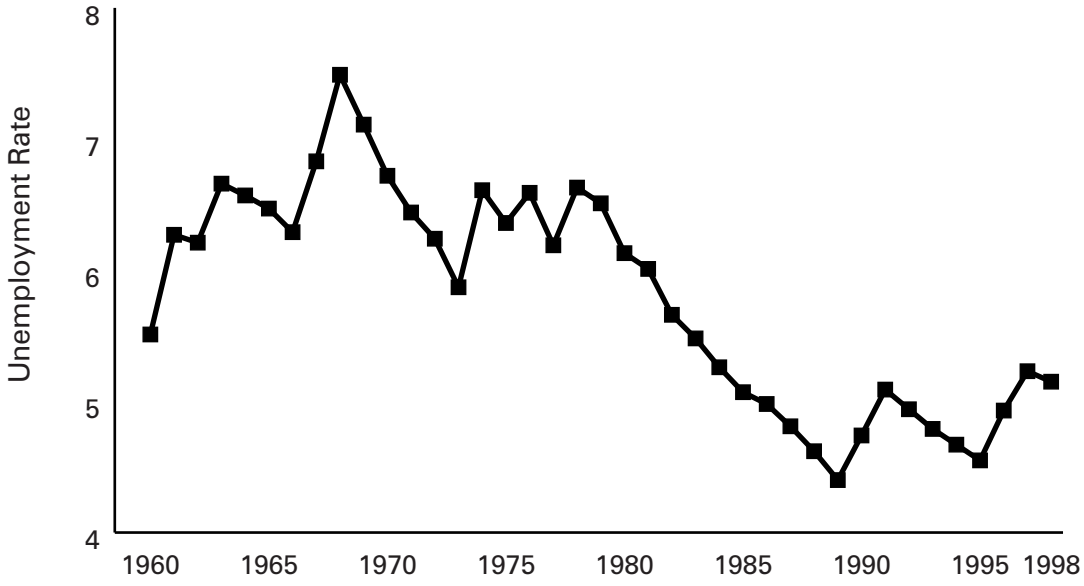
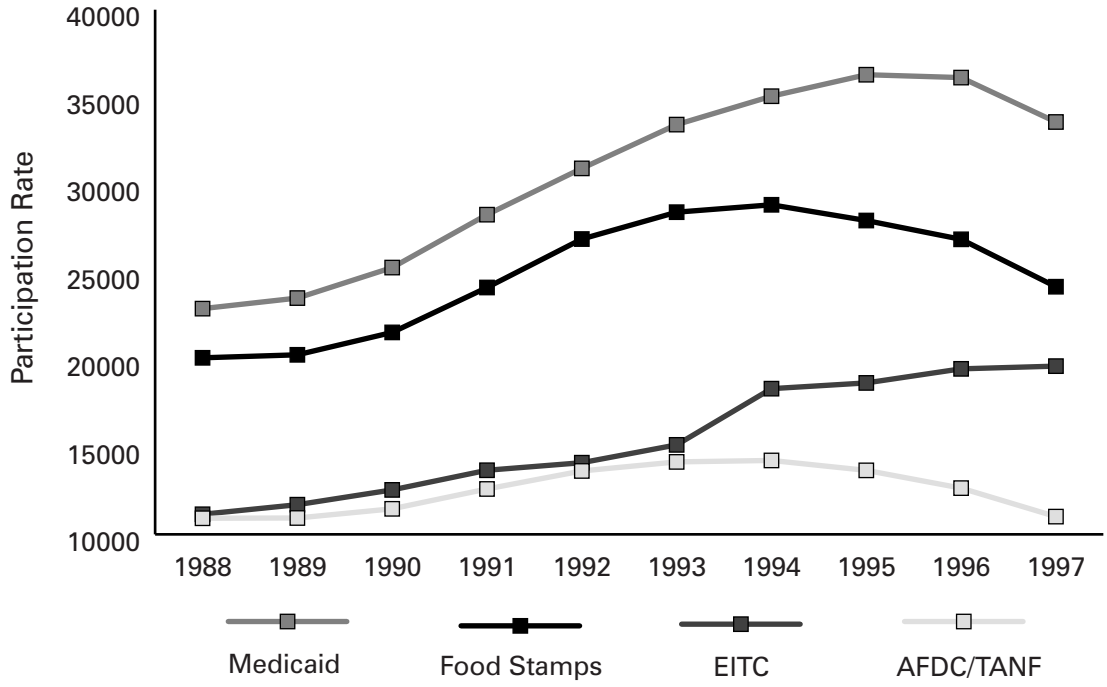


Table 1.6
Participation in Federally Administered Means-Tested Social Programs: 1988–97
(in 000's)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Food Stamps	20,095	20,266	21,547	24,115	26,886	28,422	28,844	27,945	26,870	24,160
AFDC/ TANF	10,920	10,935	11,460	12,595	13,625	14,143	14,226	13,659	12,644	11,015
Medicaid	22,907	23,511	25,255	28,280	30,926	33,430	35,053	36,282	36,118	33,579
EITC	11,148	11,696	12,542	13,665	14,097	15,117	18,331	18,659	19,464	19,619

Sources: U.S. Department of Agriculture, Food and Nutrition Service; U.S. House of Representatives, Committee on Ways and Means: *1998 Green Book;* Administration for Children and Families, Office of Planning, Research, and Evaluation; Health Care Financing Administration; U.S. Department of the Treasury.

Figure 1.6
Participation in Federally Administered Means-Tested Social Programs, 1988–97 (in 000's)



Part 2
Factors Affecting Low-Wage Employment

Table 2.1
Multiple Jobholders by Gender, Race, and Marital Status: 1994–98
(as a percentage of all employed persons in the specified group)

	1994	1995	1996	1997	1998
Total	5.9	6.2	6.2	6.1	6.0
White	6.1	6.4	6.4	6.3	6.2
Black	4.9	5.2	5.2	5.4	5.5
Hispanic Origin	3.7	3.9	3.8	3.9	3.8
Married, Spouse Present	5.6	5.9	6.0	5.9	5.8
Widowed, Divorced, or Separated	6.2	6.5	6.6	6.8	6.7
Never Married	6.4	6.5	6.4	6.3	6.1
Male	5.9	6.1	6.1	6.1	5.9
White	6.0	6.3	6.3	6.2	6.0
Black	5.4	5.6	5.8	5.9	5.9
Hispanic Origin	3.7	3.8	3.6	3.9	3.7
Married, Spouse Present	6.1	6.4	6.4	6.3	6.2
Widowed, Divorced, or Separated	5.5	5.5	5.9	6.0	5.8
Never Married	5.7	5.9	5.8	5.7	5.3
Female	5.9	6.2	6.2	6.2	6.2
White	6.1	6.4	6.5	6.4	6.4
Black	4.4	4.8	4.6	5.0	5.2
Hispanic Origin	3.6	4.0	4.1	3.8	3.9
Married, Spouse Present	5.0	5.3	5.5	5.4	5.3
Widowed, Divorced, or Separated	6.7	7.2	7.1	7.4	7.3
Never Married	7.2	7.2	7.2	7.1	7.0

Notes: Multiple jobholders are employed persons who either 1) had jobs as wage or salary workers with two employers or more; 2) were self-employed and also had a wage or salary job; or 3) were unpaid family workers on their primary jobs but also held a wage and salary job.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *Employment and Earnings* (January 1999), as published in *Statistical Abstract of the United States* (1995–98).

Figure 2.1
Percentage of Workers Holding Multiple Jobs, by Marital Status and Gender, 1998

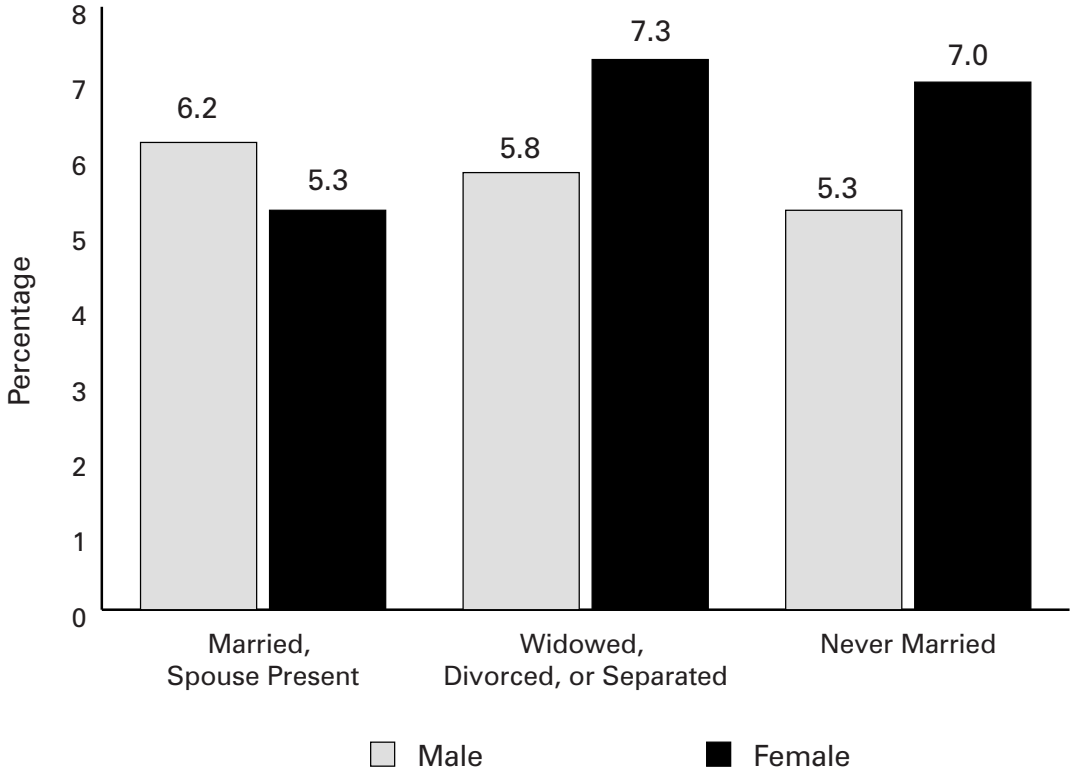


Table 2.2
Employment Status of Displaced Workers, by Gender and Race, 1992, 1994, and 1996

	1992	1994	1996
Total			
Employed	64.9	68.0	73.6
Unemployed	22.2	19.1	12.5
Not in Labor Force	12.9	12.9	13.9
Male			
Employed	66.6	71.6	77.8
Unemployed	24.5	19.9	13.1
Not in Labor Force	8.9	8.4	9.1
Female			
Employed	62.2	62.9	68.2
Unemployed	18.6	17.9	11.8
Not in Labor Force	19.2	19.2	20.0
White			
Employed	65.7	69.3	74.1
Unemployed	21.2	17.9	12.0
Not in Labor Force	13.0	12.8	13.9
Black			
Employed	58.7	61.5	67.4
Unemployed	28.6	26.1	17.1
Not in Labor Force	12.7	12.4	15.5
Hispanic			
Employed	60.4	55.6	66.5
Unemployed	27.4	30.5	22.8
Not in Labor Force	12.3	13.9	10.7

Notes: Data as of January 1992, February 1994, and February 1996 for persons 20 years and older with tenure of 3 years or more who lost or left a job in the designated time period because of plant closings or moves, slack work, or abolishment of their positions. The designated periods are: between January 1987 and January 1992 (1992 data); between January 1991 and December 1993 (1994 data); and between January 1993 and December 1995 (1996 data).
Source: U.S. Department of Labor: Bureau of Labor Statistics: as published in *Statistical Abstract of the United States* (1995–97).

Figure 2.2
Percentage of Recently Displaced Workers Who Remained Unemployed, 1992, 1994, and 1996

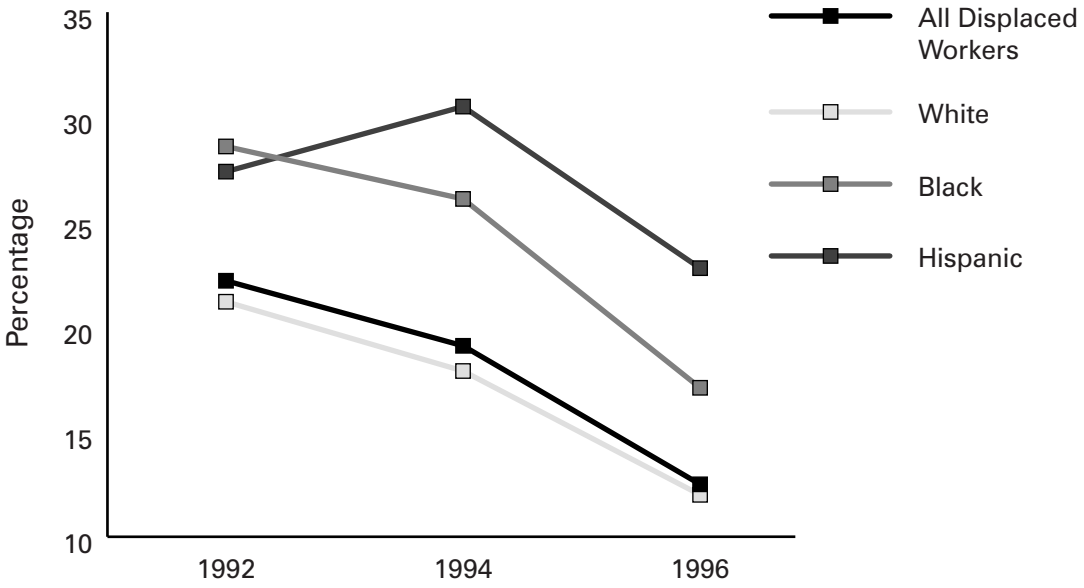


Table 2.3
Percentage of Individuals Ages 31 to 38 Reporting at Least One Spell of Unemployment, by Gender, Race, and Educational Attainment, 1991–95

Total	37.1
Male	37.6
Female	36.6
White	34.4
Black	49.6
Hispanic	41.4
No High School Diploma	51.5
High School Graduate, No College	40.8
College Graduate	24.5

Notes: Taken from the National Longitudinal Study of Youth, a survey of 9,964 young men and women who were 14 to 22 years of age when first interviewed in 1979 and 31 to 39 when last interviewed in 1996. In 1995, at the time of this interview, the individuals were ages 31 to 38.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *USDL News* (June 24, 1998).

Figure 2.3
Percentage of Individuals Ages 31 to 38 Reporting at Least One Spell of Unemployment, by Gender, Race, and Educational Attainment, 1991–95

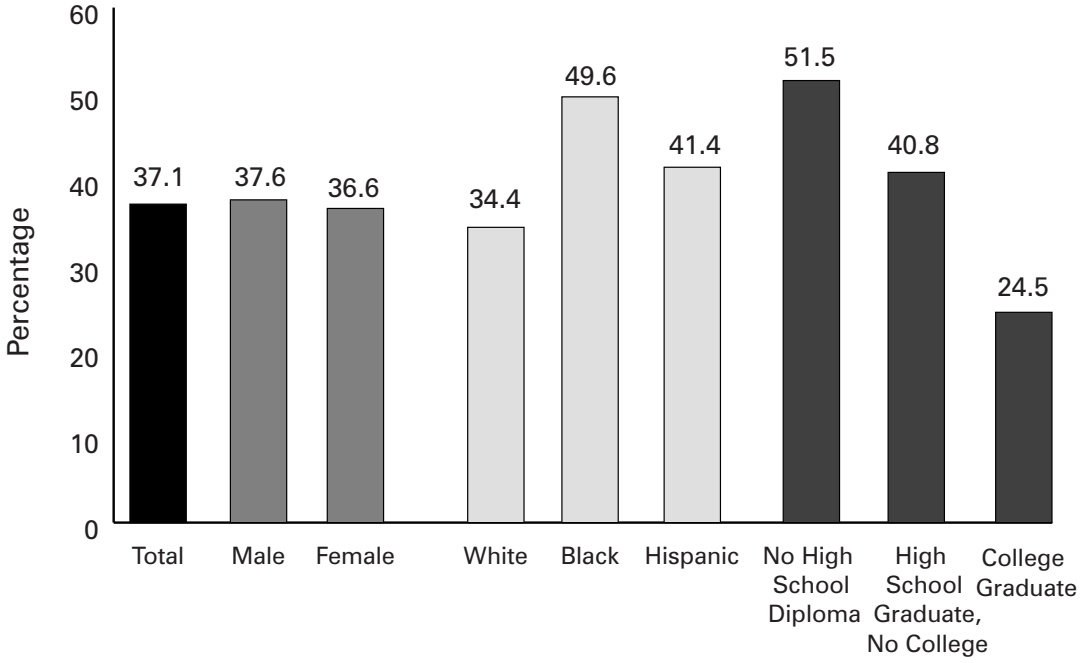


Table 2.4
Percentage of All Wage and Salary Workers Paid Hourly Rates, by Gender, 1979–95

Year	All Wage & Salary Workers	Male	Female
1979	59.0	57.4	61.2
1980	58.5	56.8	60.7
1981	58.6	56.5	61.2
1982	58.2	55.6	61.3
1983	58.7	56.1	61.8
1984	58.7	56.3	61.7
1985	59.0	56.6	61.8
1986	59.4	57.1	62.0
1987	60.0	57.6	62.7
1988	60.0	57.6	62.8
1989	60.3	57.8	63.1
1990	60.0	57.5	62.8
1991	60.1	57.6	62.8
1992	60.6	58.2	62.9
1993	60.3	57.9	62.8
1994	61.6	59.3	64.2
1995	62.1	59.7	64.8

Notes: Data exclude the incorporated self-employed.
Source: U.S. Department of Labor: Bureau of Labor Statistics: unpublished tables from the Current Population Survey (1980–96).

Figure 2.4
Percentage of All Wage and Salary Workers Paid Hourly Rates, by Gender, 1979–95

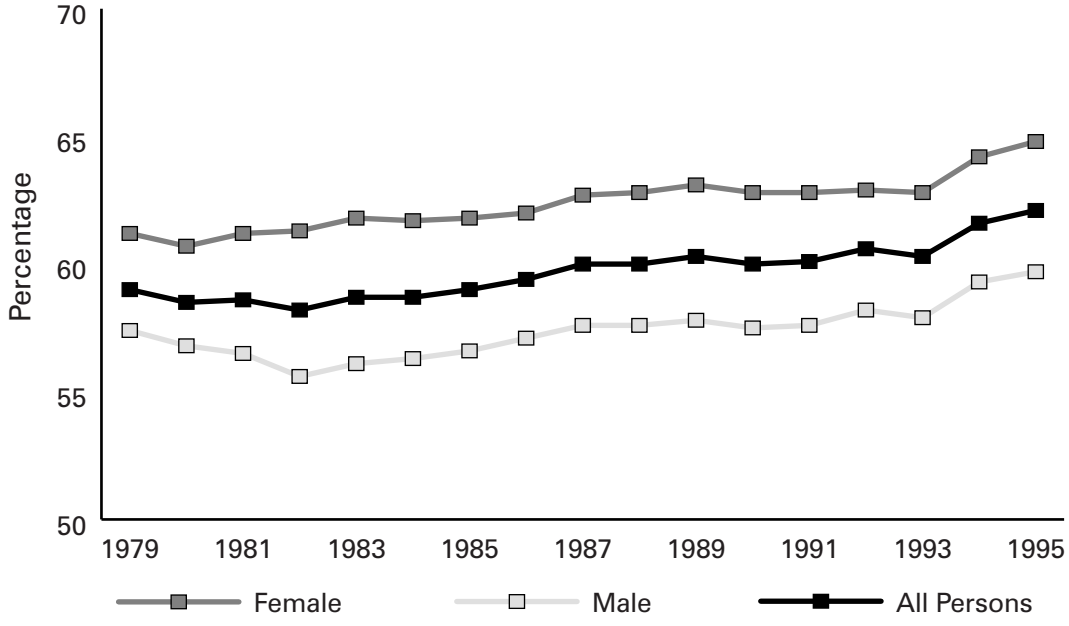


Table 2.5
Percentage of Hourly Workers Paid at or below the Prevailing Minimum Wage, by Gender, 1979–95

Year	All Hourly Workers	Male	Female
1979	13.3	7.7	20.2
1980	15.1	9.6	21.6
1981	15.1	9.6	21.3
1982	12.8	8.6	17.3
1983	12.2	8.4	16.4
1984	11.0	7.5	14.8
1985	9.9	6.9	13.2
1986	8.8	5.9	11.8
1987	7.9	5.4	10.5
1988	6.5	4.4	8.6
1989	5.1	3.5	6.7
1990	5.1	3.3	7.0
1991	9.3	6.7	11.8
1992	7.6	5.7	9.5
1993	6.6	5.0	8.2
1994	6.2	4.7	7.8
1995	5.3	3.8	6.8

Notes: The prevailing federal wage (in nominal dollars) was $2.90 in 1979, $3.10 in 1980, and $3.35 in 1981–89. The minimum wage rose to $3.80 in 1990 and to $4.25 in 1991. Data exclude the incorporated self-employed.
Source: U.S. Department of Labor: Bureau of Labor Statistics: unpublished tables from the Current Population Survey (1980–96).

Figure 2.5
Percentage of Hourly Workers Paid at or below the Prevailing Minimum Wage, by Gender, 1979–95

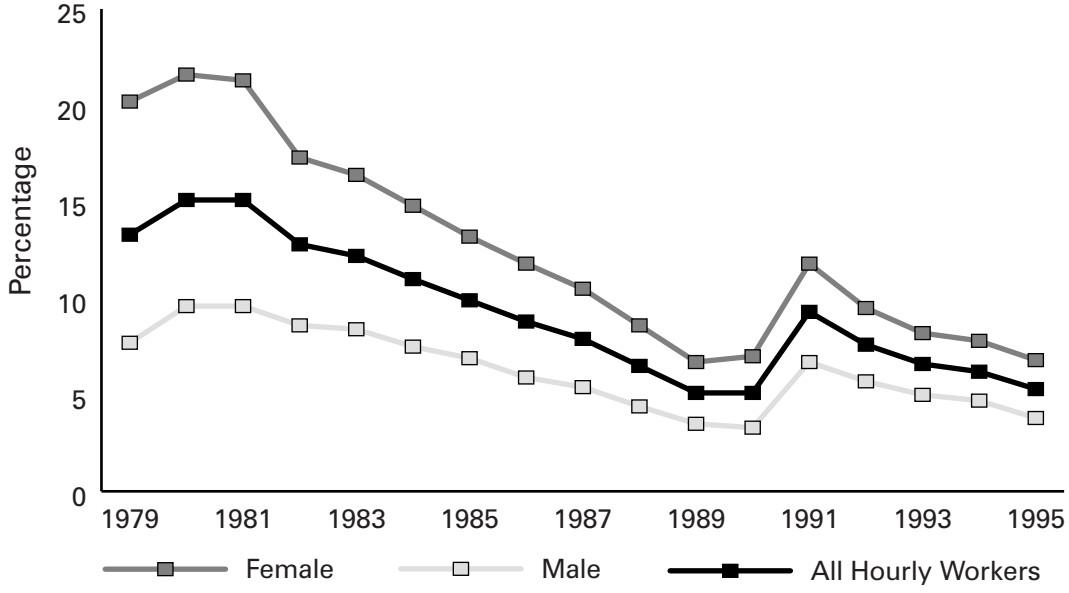
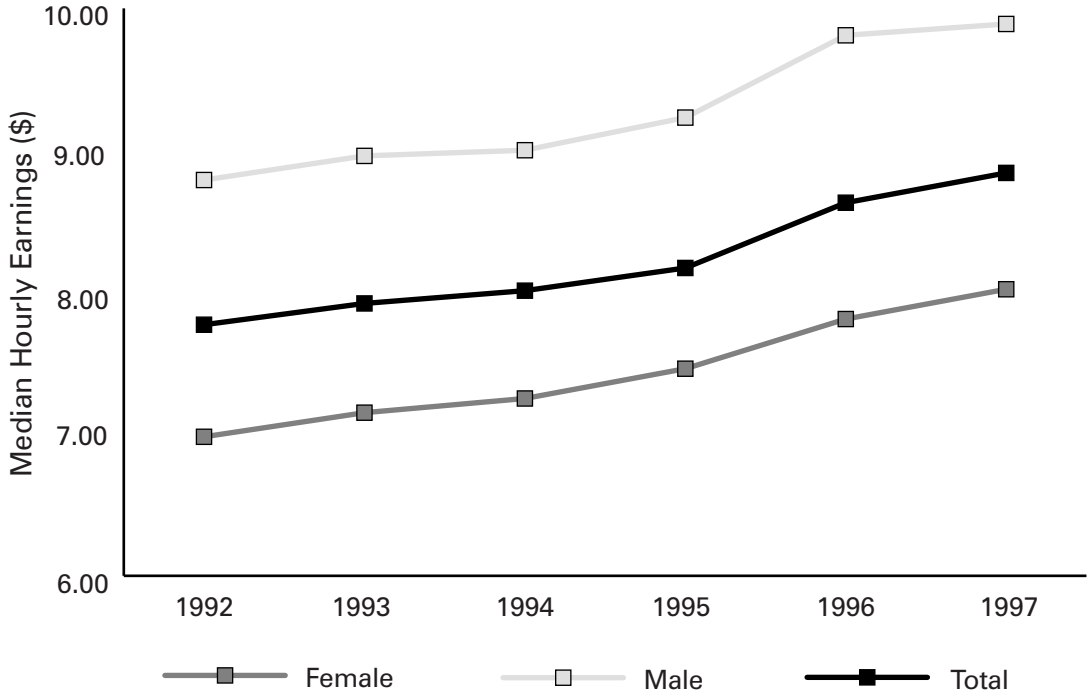


Table 2.6
Median Hourly Earnings of Workers Paid Hourly Rates: 1992–97
(in nominal dollars)

	1992	1993	1994	1995	1996	1997
Total	$7.77	$7.92	$8.01	$8.17	$8.63	$8.84
Male	8.79	8.96	9.00	9.23	9.81	9.89
Female	6.98	7.15	7.25	7.46	7.81	8.02
White	7.87	8.03	8.11	8.32	8.79	8.97
Black	7.07	7.19	7.29	7.66	7.79	8.06
Hispanic	6.71	6.87	6.93	7.00	7.24	7.61
Goods-Producing Industries	9.02	9.22	9.32	9.61	10.05	10.15
Service-Producing Industries	6.79	6.92	7.07	7.23	7.67	7.92
Full-Time Workers	8.67	8.89	8.98	9.14	9.62	9.82
Part-Time Workers	5.40	5.55	5.65	5.86	6.08	6.24

Source: U.S. Department of Labor: Bureau of Labor Statistics: as published in Statistical Abstract of the United States (1993–98).

Figure 2.6
Median Hourly Earnings of Workers Paid Hourly Rates, by Type of Industry, 1992–97
(nominal dollars)



Part 3
Description of the Working Poor

Table 3.1
Poverty Rate for Persons in the Labor Force for >27 Weeks, by Gender, Race, and Educational Attainment, 1988–96

	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total	5.4	5.3	5.5	6.1	6.3	6.7	6.2	5.9	5.8
White	4.5	4.6	4.8	5.3	5.4	5.7	5.3	5.1	5.0
Black	12.3	11.5	12.0	12.8	13.3	13.9	12.0	12.3	11.6
Hispanic	11.8	11.8	13.1	14.0	14.6	16.0	14.2	15.0	14.4
No High School Diploma	13.3	13.4	13.7	15.7	16.1	17.9	17.1	17.2	16.2
High School Graduate, No College	5.4	5.4	5.7	6.4	7.0	7.2	6.6	6.1	6.3
College Graduate	1.9	1.6	1.9	2.1	1.9	2.0	1.8	1.5	1.5
Male	5.2	4.9	5.2	6.0	6.1	6.2	5.6	5.6	5.2
White	4.6	4.3	4.7	5.3	5.5	5.6	5.1	5.1	4.8
Black	10.1	10.1	9.7	11.7	11.0	10.8	8.6	9.4	8.6
Hispanic	13.1	12.4	13.8	14.7	15.8	16.5	14.6	16.0	14.8
No High School Diploma	13.0	12.6	12.8	15.4	15.5	16.3	15.0	16.3	14.7
High School Graduate, No College	4.7	4.7	5.1	5.9	6.3	6.5	6.0	5.6	5.1
College Graduate	1.6	1.6	1.9	2.1	2.0	2.0	1.9	1.5	1.4
Female	5.6	5.8	6.0	6.3	6.7	7.3	6.9	6.4	6.5
White	4.4	4.9	4.8	5.2	5.4	5.9	5.5	5.1	5.3
Black	14.4	12.9	14.4	13.8	15.6	16.8	15.2	15.0	14.2
Hispanic	9.7	10.7	12.2	13.0	12.8	15.3	13.7	13.4	13.8
No High School Diploma	13.8	14.8	15.0	16.2	17.0	20.6	20.5	18.8	18.5
High School Graduate, No College	6.0	6.1	6.3	7.0	7.8	8.1	7.4	6.7	7.7
College Graduate	2.2	1.7	2.0	2.0	1.9	2.1	1.7	1.6	1.6

Note: The labor force poverty rate is defined as the number of workers below the poverty rate as a percentage of the total in the labor force for more than 27 weeks in a given year.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *Profiles of the Working Poor* (1988–96).

Figure 3.1a
Poverty Rate for Persons in the Labor Force for >27 Weeks, by Gender, 1988–96

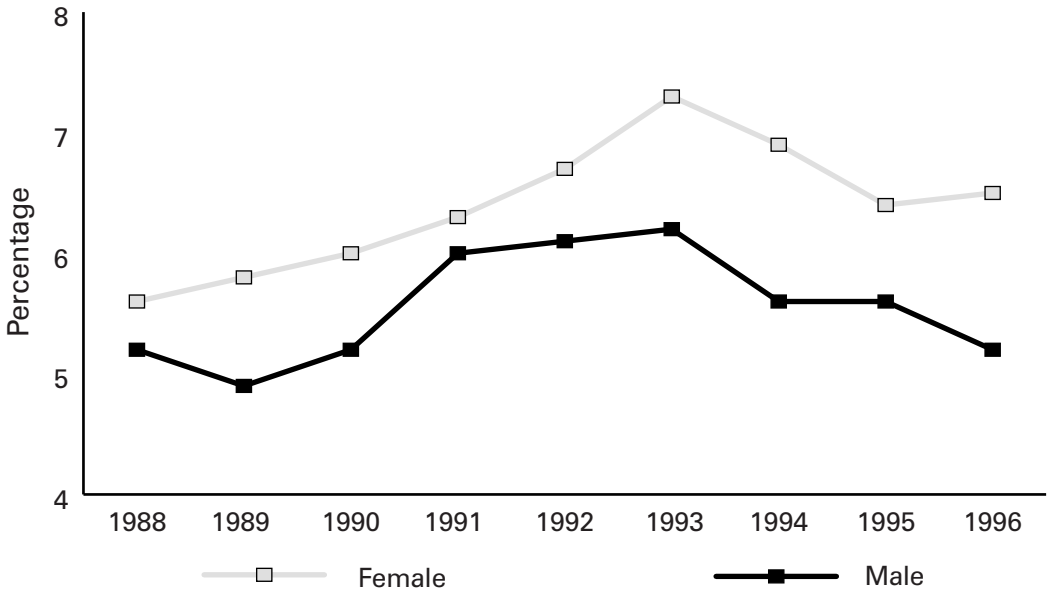


Figure 3.1b
Poverty Rate for Persons in the Labor Force for >27 Weeks, by Race, 1988–96

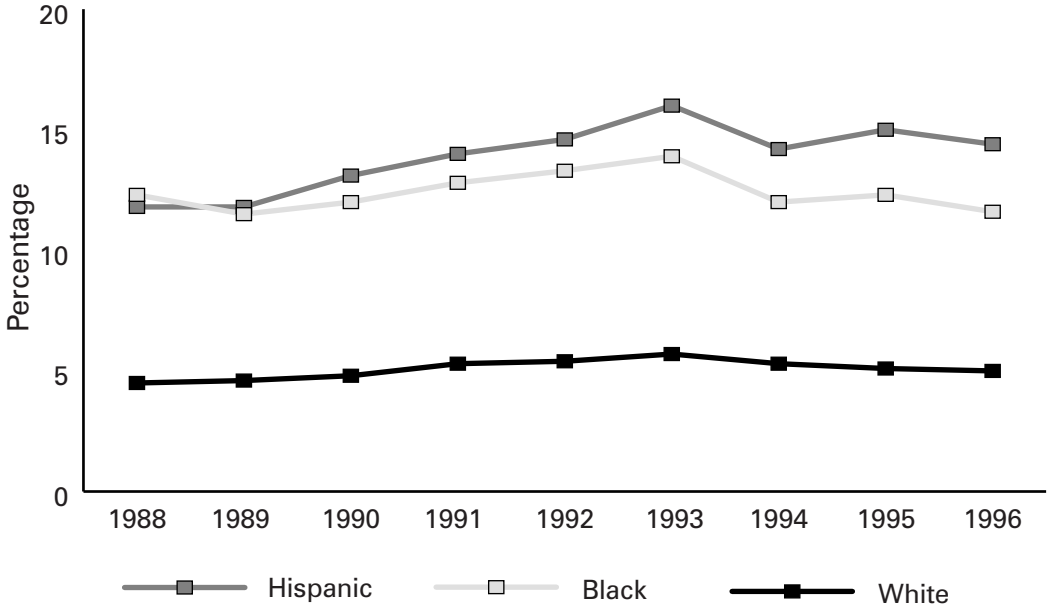


Figure 3.1c
Poverty Rate for Persons in the Labor Force for >27 Weeks, by Educational Attainment, 1988–96

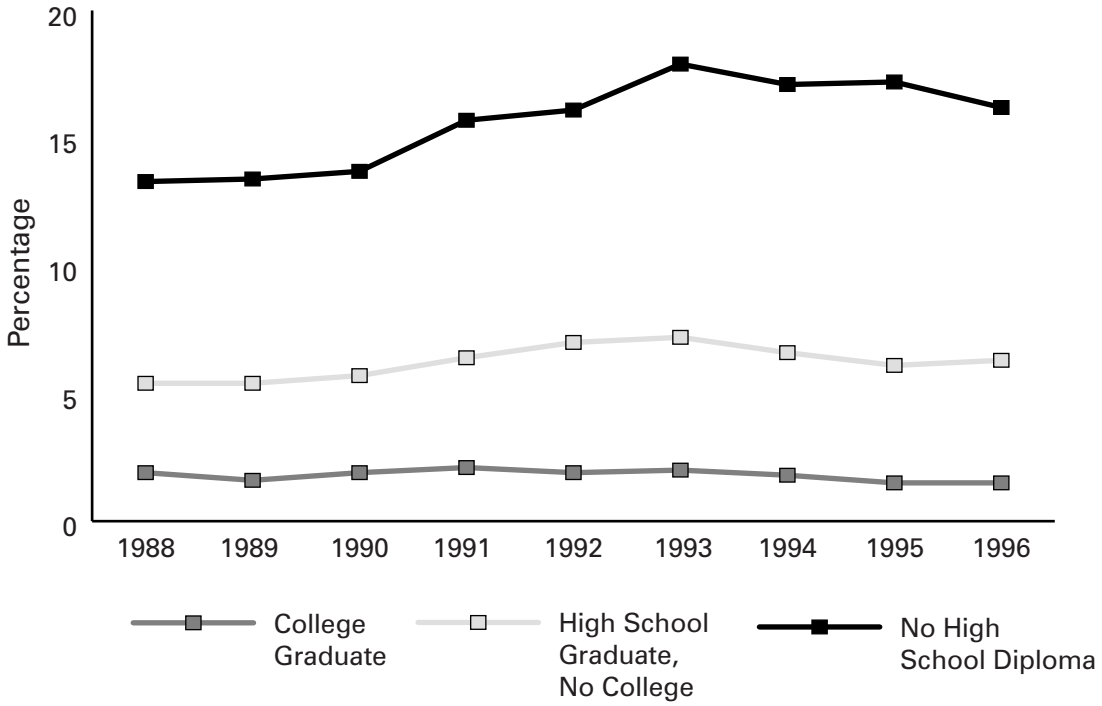


Table 3.2
Poverty Rate for Primary Families with Children with at Least One Householder in Labor Force >27 Weeks, 1988–96

	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total	5.4	5.3	5.5	6.1	6.3	6.7	6.2	5.9	5.8
Married-Couple Families	5.6	5.7	6.0	6.8	6.9	7.2	6.8	6.2	6.0
Families Maintained by Men	11.6	13.8	13.4	14.5	15.1	15.9	14.8	15.0	13.7
Families Maintained by Women	22.7	22.4	23.5	26.4	26.0	25.5	25.8	25.2	26.6

Note: The labor force poverty rate is defined as the number of workers below the poverty rate as a percentage of the total in the labor force for more than 27 weeks in a given year.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *Profiles of the Working Poor* (1988–96).

Figure 3.2
Poverty Rate for Primary Families with Children with at Least One Householder in the Labor Force for >27 Weeks, 1988–96

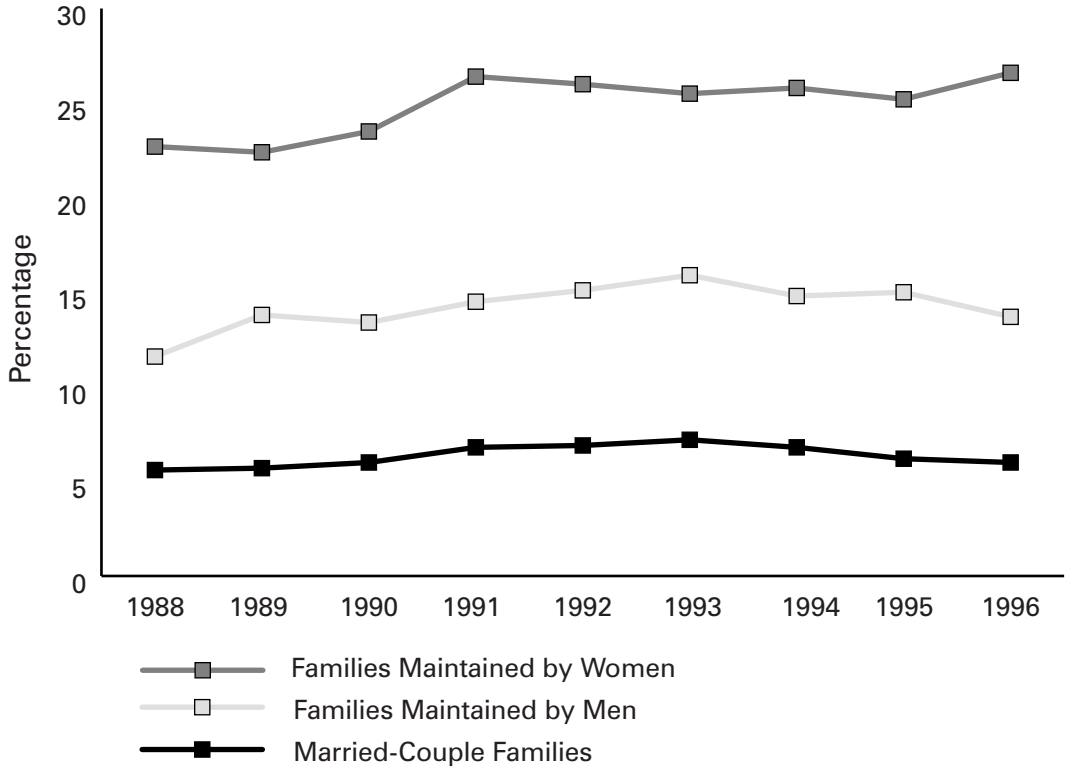


Table 3.3
Characteristics of the Working Poor, by Gender, Race, and Educational Attainment, 1988, 1992, and 1996

	1988	1992	1996
All Working Poor	100.0	100.0	100.0
White	72.3	73.6	73.2
Black	23.9	22.1	22.2
Hispanic	15.8	18.0	24.1
No High School Diploma	38.7	33.0	35.9
High School Graduate, No College	40.0	38.6	36.0
College Graduate	7.1	7.5	6.7
Men	53.4	52.4	49.0
White	78.0	78.3	78.6
Black	18.5	17.3	15.8
Hispanic	20.3	22.6	30.9
No High School Diploma	44.6	38.6	42.0
High School Graduate, No College	34.7	35.6	31.7
College Graduate	7.4	8.2	7.2
Women	46.6	47.6	51.0
White	65.7	68.4	68.0
Black	30.2	27.5	28.3
Hispanic	10.7	12.9	17.9
No High School Diploma	31.8	26.9	30.0
High School Graduate, No College	46.1	41.9	40.2
College Graduate	6.8	6.7	6.2

Notes: The "working poor" are defined as those below the labor force poverty rate. The labor force poverty rate is defined as the number of workers below the poverty rate as a percentage of the total in the labor force for more than 27 weeks in a given year. Race figures do not sum to 100% because Hispanics are not excluded from other racial categories. Educational attainment figures do not sum to 100% because other categories (some college, etc.) are not included in this table.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *Profiles of the Working Poor* (1988–96).

Figure 3.3a
Gender of Working Poor, 1988, 1992, and 1996

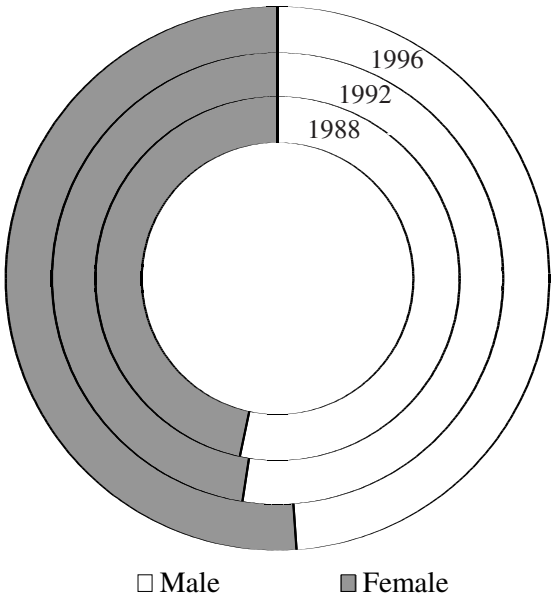


Figure 3.3b
Race of Working Poor, 1996

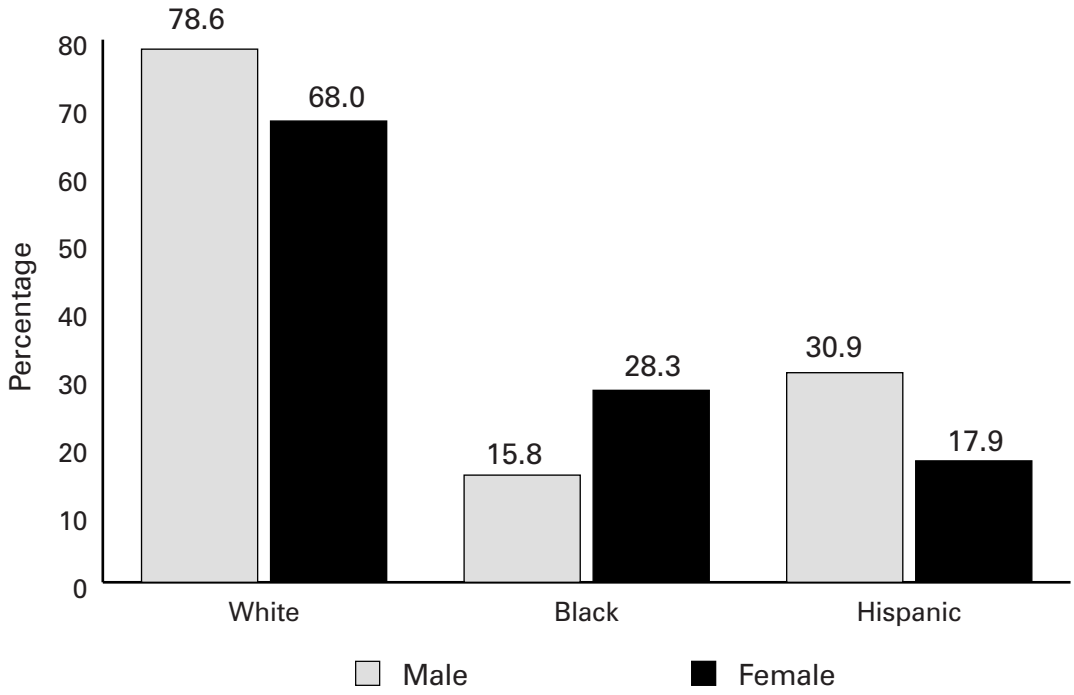


Figure 3.3c
Educational Attainment of Working Poor, 1996

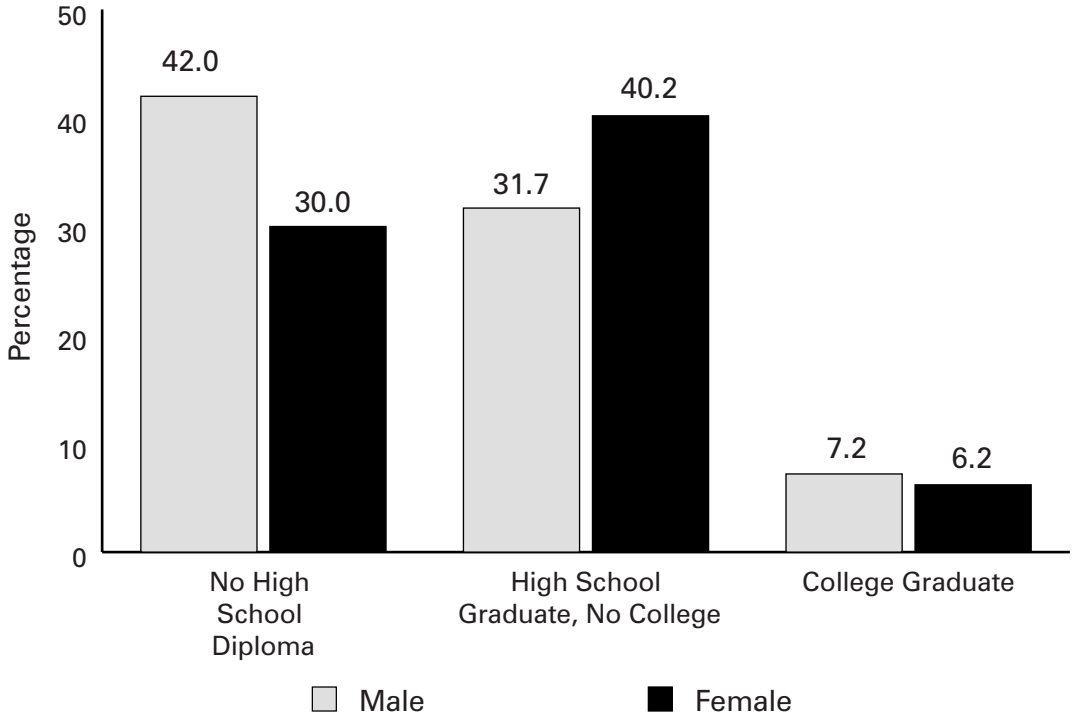
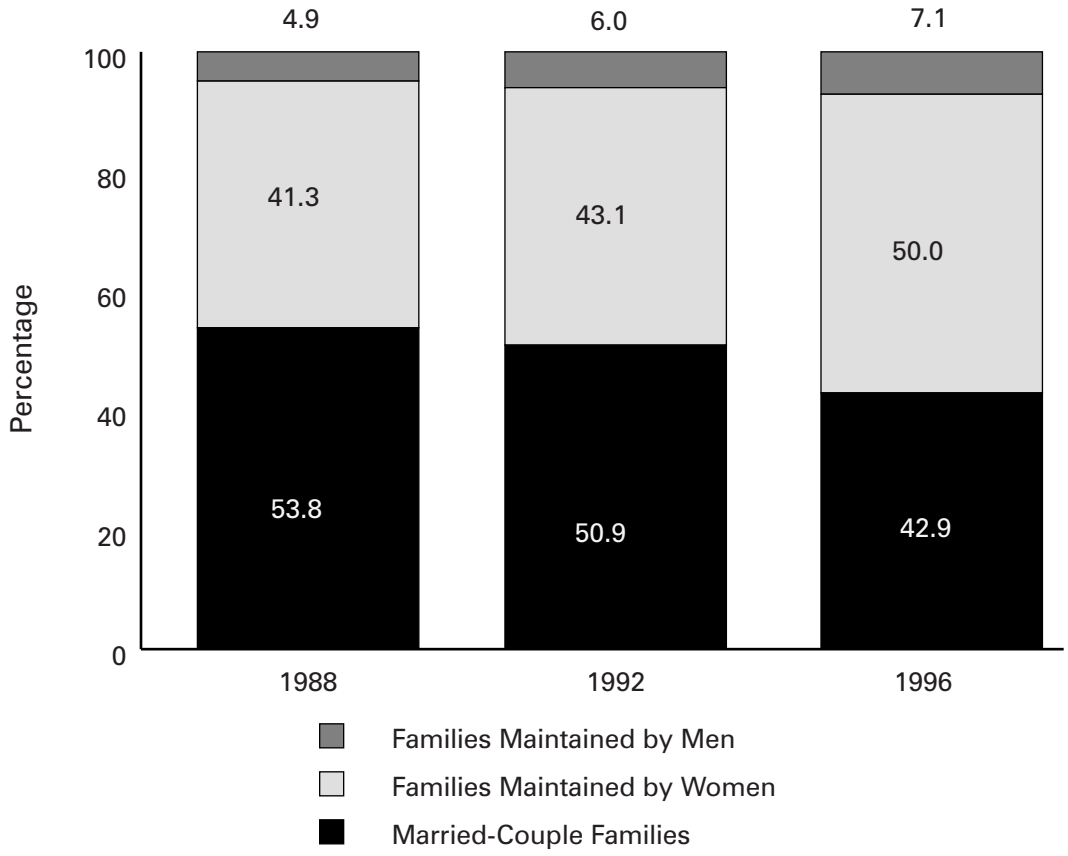


Table 3.4
Heads of Households of Working Poor Families, 1988, 1992, and 1996

	1988	1992	1996
Total	100.0	100.0	100.0
Married-Couple Families	53.8	50.9	42.9
Families Maintained by Women	41.3	43.1	50.0
Families Maintained by Men	4.9	6.0	7.1

Notes: The "working poor" are defined as those below the labor force poverty rate. The labor force poverty rate is defined as the number of workers below the poverty rate as a percentage of the total in the labor force for more than 27 weeks in a given year.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *Profiles of the Working Poor* (1988–96).

Figure 3.4
Heads of Households of Working Poor Families, 1988, 1992, and 1996



Part 4
Health Insurance and Other Benefits

Table 4.1
Type and Status of Health Insurance Coverage, 1987–97

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Private Insurance	75.5	74.7	74.6	73.2	72.1	70.7	70.2	70.3	70.3	70.2	70.1
Employment-Based	62.1	61.9	61.6	60.4	59.7	57.9	57.1	60.9	61.1	61.2	61.4
Government Insurance	21.0	20.9	20.8	21.9	22.5	22.8	23.4	24.1	23.7	23.2	22.2
Medicare	11.0	11.1	11.2	11.3	11.4	11.2	11.1	11.3	11.5	11.6	11.6
Medicaid	7.0	6.9	7.1	8.2	8.8	9.6	10.3	10.3	10.4	10.3	9.2
Military	4.8	4.6	4.4	4.3	4.3	4.0	4.0	4.7	3.9	3.5	3.5
No Insurance	14.1	14.7	14.8	15.4	15.8	16.9	17.1	16.6	16.8	17.1	17.6

Source: U.S. Department of Commerce, Bureau of the Census: Internet site, accessed 19 Jan 1999 (http://www.census.gov/hhes/hlthins/historic/hihistt1.html).

Figure 4.1
Type and Status of Health Insurance Coverage, 1987–97

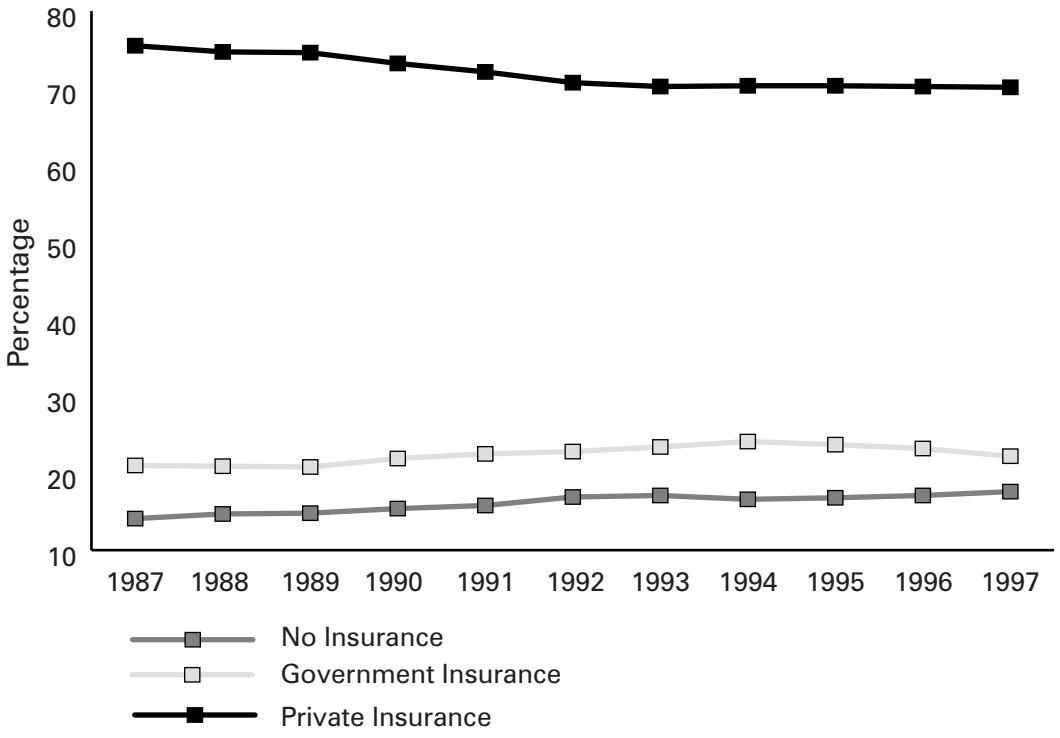


Table 4.2
Type and Status of Health Insurance Coverage, by Income, 1997

	All Persons	Poor Persons
Private Insurance	70.1	23.2
Employment-Based	61.4	15.5
Government Insurance	24.8	52.2
Medicare	13.2	13.0
Medicaid	10.8	43.3
Military	3.2	1.5
No Insurance	16.1	31.6

Notes: "Poor persons" are defined as those with total family incomes at or below the poverty rate.
Source: U.S. Department of Commerce: Bureau of the Census: *Health Insurance Coverage: 1997* (1998).

Figure 4.2
Type and Status of Health Insurance Coverage, by Income, 1997

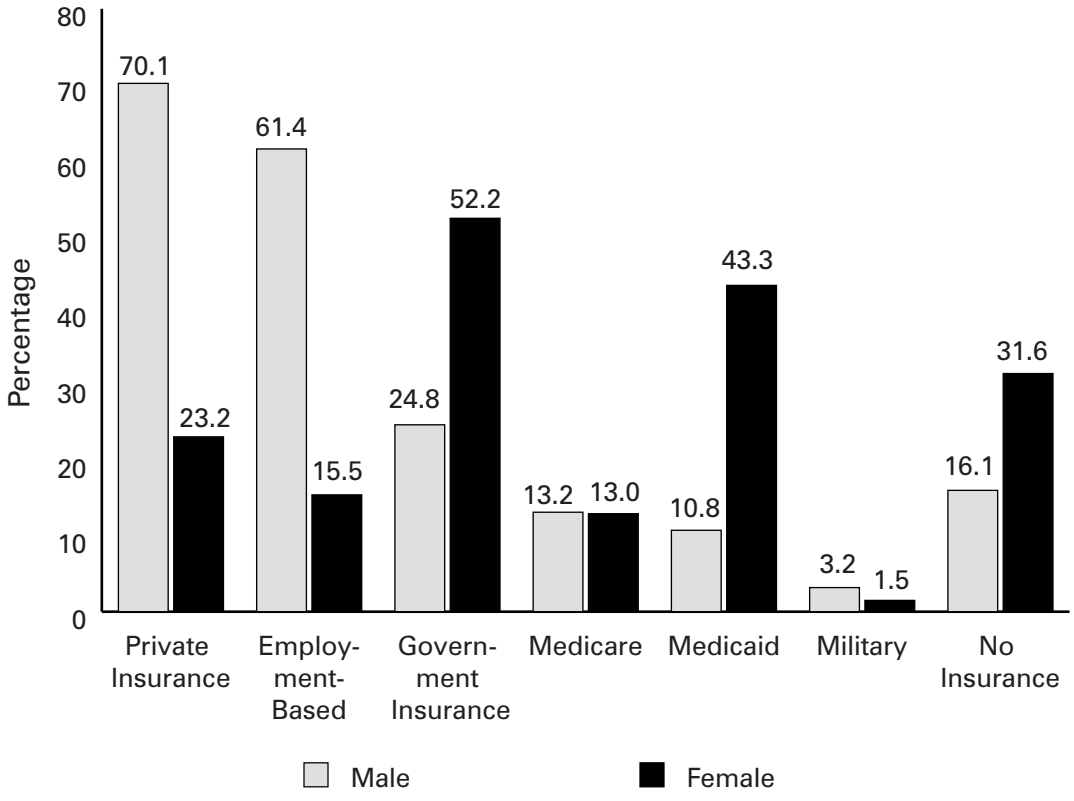


Table 4.3
Percentage of Persons Not Covered by Health Insurance, by Income and Selected Characteristics, 1997

	All Persons	Poor Persons
Total	16.1	31.6
Male	17.6	35.9
Female	14.8	28.4
White	15.0	33.0
Black	21.5	27.4
Hispanic	34.2	40.8
No High School Diploma	26.1	35.8
High School Graduate, No College	18.5	38.2
College Graduate	8.2	37.3
Under 18	15.0	23.8
18 to 24	30.1	45.4
25 to 34	23.3	47.5
35 to 44	17.3	43.8
45 to 64	14.1	35.4
65 and up	1.0	2.9

Notes: "Poor persons" are defined as those with total family incomes at or below the poverty rate.
Source: U.S. Department of Commerce: Bureau of the Census: Internet site, accessed 16 Dec 1998 (http://www.census.gov/hhes/hlthins/hlthin97/hi97t2.html).

Figure 4.3
Percentage of Persons Not Covered by Health Insurance, by Income, Race, and Educational Attainment, 1997

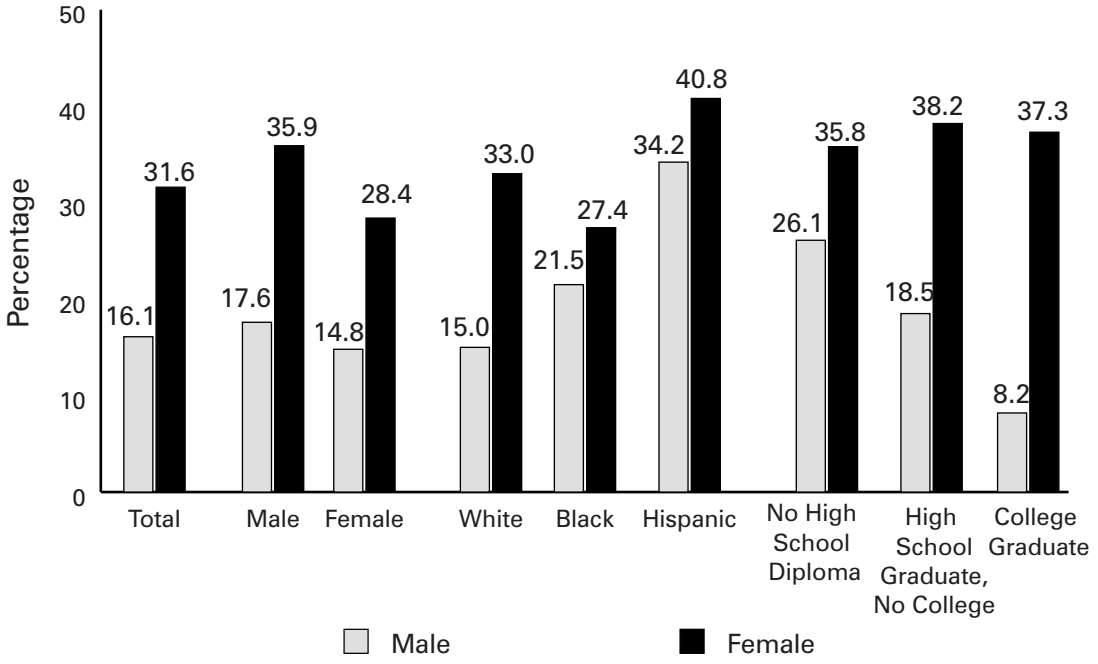


Table 4.4
Employer Costs for Employee Benefits per Hour Worked, 1990–97
(in nominal dollars)

	1990	1991	1992	1993	1994	1995	1996	1997
All Employers	$4.13	$4.27	$4.55	$4.80	$4.94	$4.85	$4.91	$4.94
Paid Leave	1.03	1.05	1.09	1.11	1.11	1.09	1.12	1.14
Supplemental Pay	0.37	0.36	0.39	0.42	0.44	0.47	0.49	0.51
Insurance	0.92	1.01	1.12	1.19	1.23	1.15	1.14	1.09
Pensions and Savings	0.45	0.44	0.46	0.48	0.52	0.52	0.55	0.55
Legally Required	1.35	1.40	1.47	1.55	1.60	1.59	1.50	1.62
Other Benefits	0.00	0.00	0.02	0.04	0.04	0.03	0.03	0.03
Goods-Producing Industries	$5.41	$5.78	$6.21	$6.67	$6.98	$6.78	$6.89	$6.94
Paid Leave	1.19	1.27	1.33	1.38	1.38	1.37	1.43	1.45
Supplemental Pay	0.61	0.63	0.64	0.67	0.71	0.78	0.85	0.82
Insurance	1.26	1.41	1.60	1.74	1.85	1.66	1.67	1.64
Pensions and Savings	0.61	0.66	0.70	0.77	0.85	0.82	0.80	0.85
Legally Required	1.70	1.78	1.89	1.99	2.08	2.08	2.08	2.11
Other Benefits	0.03	0.03	0.05	0.12	0.11	0.07	0.07	0.07
Service-Producing Industries	$3.63	$3.72	$3.97	$4.17	$4.26	$4.20	$4.27	$4.29
Paid Leave	0.96	0.97	1.01	1.01	1.02	1.00	1.02	1.04
Supplemental Pay	0.28	0.26	0.30	0.34	0.36	0.37	0.38	0.42
Insurance	0.79	0.86	0.95	1.01	1.03	0.98	0.97	0.92
Pensions and Savings	0.39	0.36	0.38	0.39	0.41	0.41	0.47	0.45
Legally Required	1.21	1.26	1.33	1.40	1.44	1.43	1.44	1.46
Other Benefits	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00

Notes: Goods-producing industries include mining, construction, and manufacturing. Service-producing industries include transportation, communications, public utilities, wholesale trade, retail trade, finance, insurance, real estate, and services. "Legally required" benefits include Social Security, unemployment insurance, and workers' compensation. "Other benefits" include severance pay and supplemental unemployment benefits.
Source: U.S. Department of Labor: Bureau of Labor Statistics: as published in *Statistical Abstract of the United States* (1991–98).

Figure 4.4
Employer Costs for Employee Benefits per Hour Worked, by Type of Industry, 1990–97 (nominal dollars)

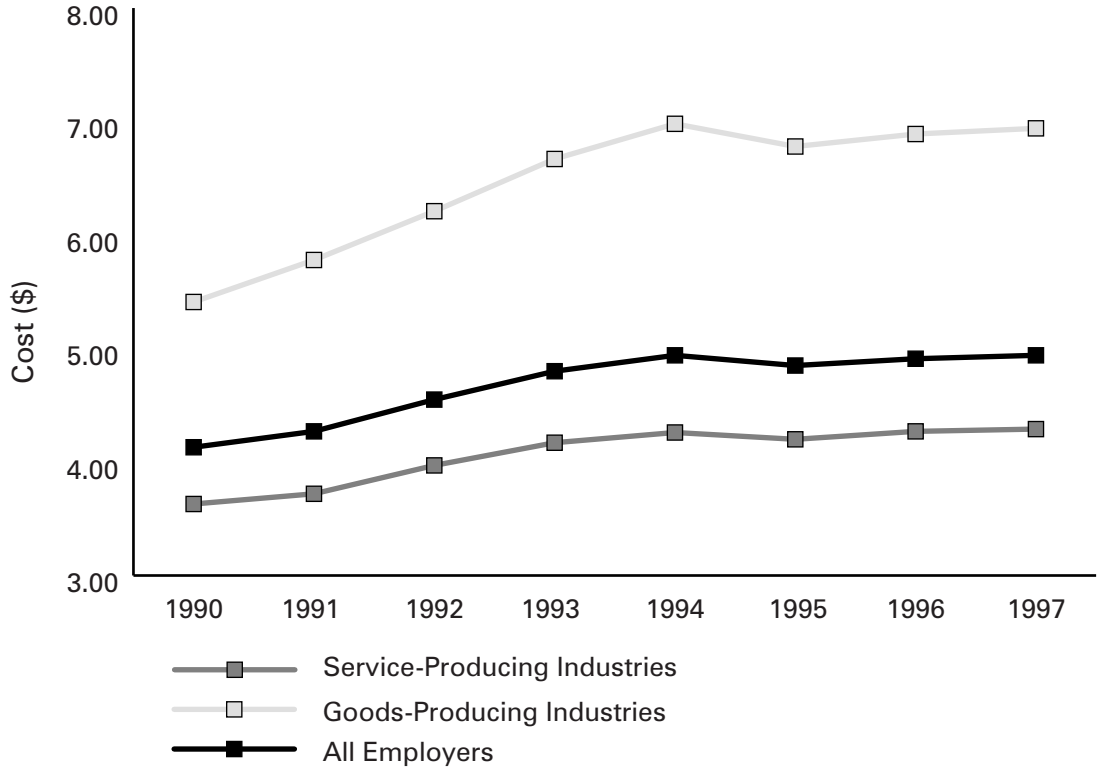


Table 4.5
Hours of Training per Employee, by Selected Characteristics, May–October 1995

	Hours of Training		
	Total	**Formal**	**Informal**
All Employees	44.5	13.4	31.1
Male	47.6	12.2	35.4
Female	41.5	14.6	26.9
White	48.5	13.6	35.0
Black	27.7	13.8	13.9
Hispanic	32.7	11.0	21.7
High School Graduate or Less	35.7	10.9	24.8
Some College	51.2	14.3	37.0
Bachelor's Degree or Higher	47.9	16.1	31.8
<35 Hours Per Week	12.5	4.8	7.7
35 Hours or More Per Week	48.8	14.6	34.2
Top Quartile of Earnings	43.9	22.8	21.1
2nd Quartile of Earnings	55.5	15.9	39.6
3rd Quartile of Earnings	42.1	11.6	30.5
Bottom Quartile of Earnings	34.7	4.1	30.6
Managerial/Administrative	26.7	4.3	22.4
Professional/Technical	61.1	22.3	38.7
Sales/Clerical	33.3	10.2	23.2
Service	27.7	5.6	22.1
Construction/Maintenance	53.7	15.2	38.5
2 Years with Current Employer	65.4	8.9	56.5
2–5 Years with Current Employer	24.0	4.5	19.5
5–10 Years with Current Employer	46.5	19.5	27.0

Notes: Formal training is defined in the survey as training that is planned in advance and has a structured format and defined curriculum. Examples include attending a class conducted by an employee of the company, attending a seminar given by a professional trainer, or watching a planned audiovisual presentation. Informal training is unstructured, unplanned, and easily adapted to situations or individuals. Examples include having a co-worker show you how to use a piece of equipment or having a supervisor teach you a skill related to your job.
Source: U.S. Department of Labor: Bureau of Labor Statistics: *Survey of Employer-Provided Training* (1995).

Figure 4.5
Hours of Training per Employee, by Gender and Race, May–October 1995

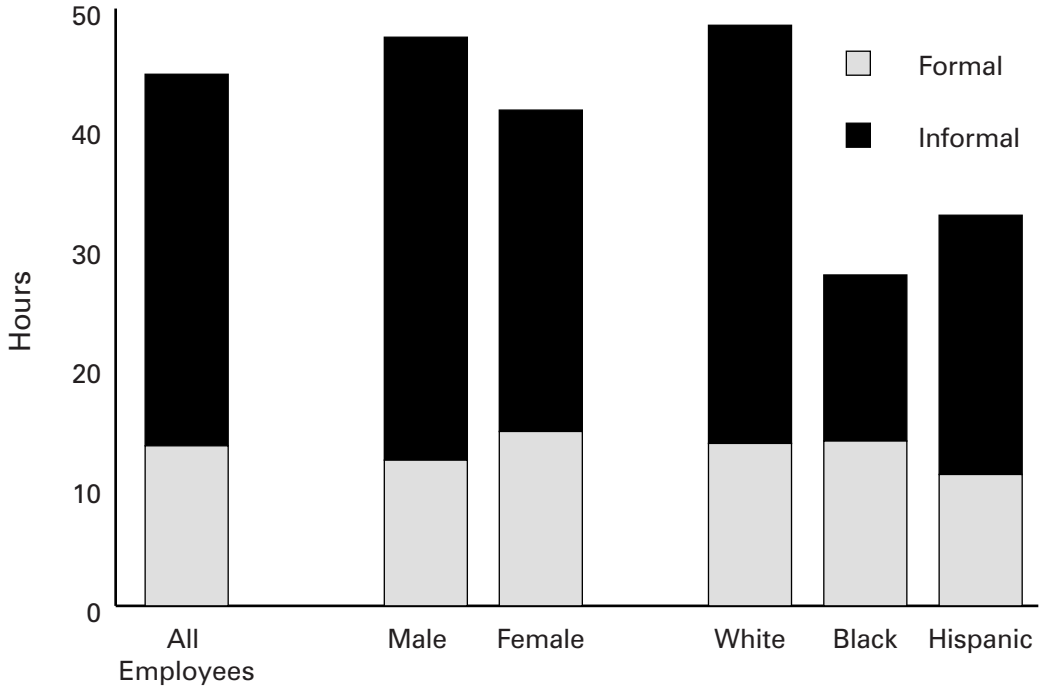


Table 4.6
Access to Fringe Benefits and Family-Friendly Policies among Workers, 1992

	All Workers	Low-Wage Workers	Other Workers
Traditional Fringe Benefits			
Job-related health insurance for self	86.4	73.1	92.4
Job-related health insurance for family	79.4	60.9	87.7
Health insurance from any source for self	90.5	78.3	96.1
Health insurance from any source for children	94.3	90.1	96.0
Pension plan	71.4	52.7	79.6
Paid vacation time	79.6	62.3	87.6
Flexible Leave and Time Policies			
Leave for childbirth and parenting	88.4	87.0	89.0
Eligible for family & medical leave under FMLA	46.0	31.3	52.8
Allowed time off to care for sick family member	90.4	86.7	92.1
Opportunities for part-time work or job sharing	56.9	63.2	53.9
Allowed extended lunch break for personal reasons	46.7	37.2	51.1
Allowed to work less one day & make it up later	44.5	43.0	45.0
Allowed to set own start & end times	29.7	27.0	31.0
Allowed to do some work at home regularly	23.4	15.1	27.3
Dependent Care Benefits			
Child Care Resource & Referral (CCR&R)	20.1	13.3	23.3
Employer-sponsored on/near-site care	10.2	7.6	11.3
Dependent Care Assistance Plan (DCAP)	28.0	16.5	33.0
Employer-paid child care subsidy	4.1	2.5	4.9
Elder Care Resource & Referral (ECR&R)	10.6	5.5	13.0

Note: Low-wage workers are defined as workers with hourly earnings of less than $8.00 per hour. Someone earning this hourly wage in a full-time, full-year job would gross $15,000 annually. About a third of wage and salaried workers earned less than $8.00 per hour in 1992.
Souce: Families and Work Institute: *National Study of the Changing Workforce* (1992).

Figure 4.6
Access to Fringe Benefits and Family-Friendly Policies among Workers, 1992

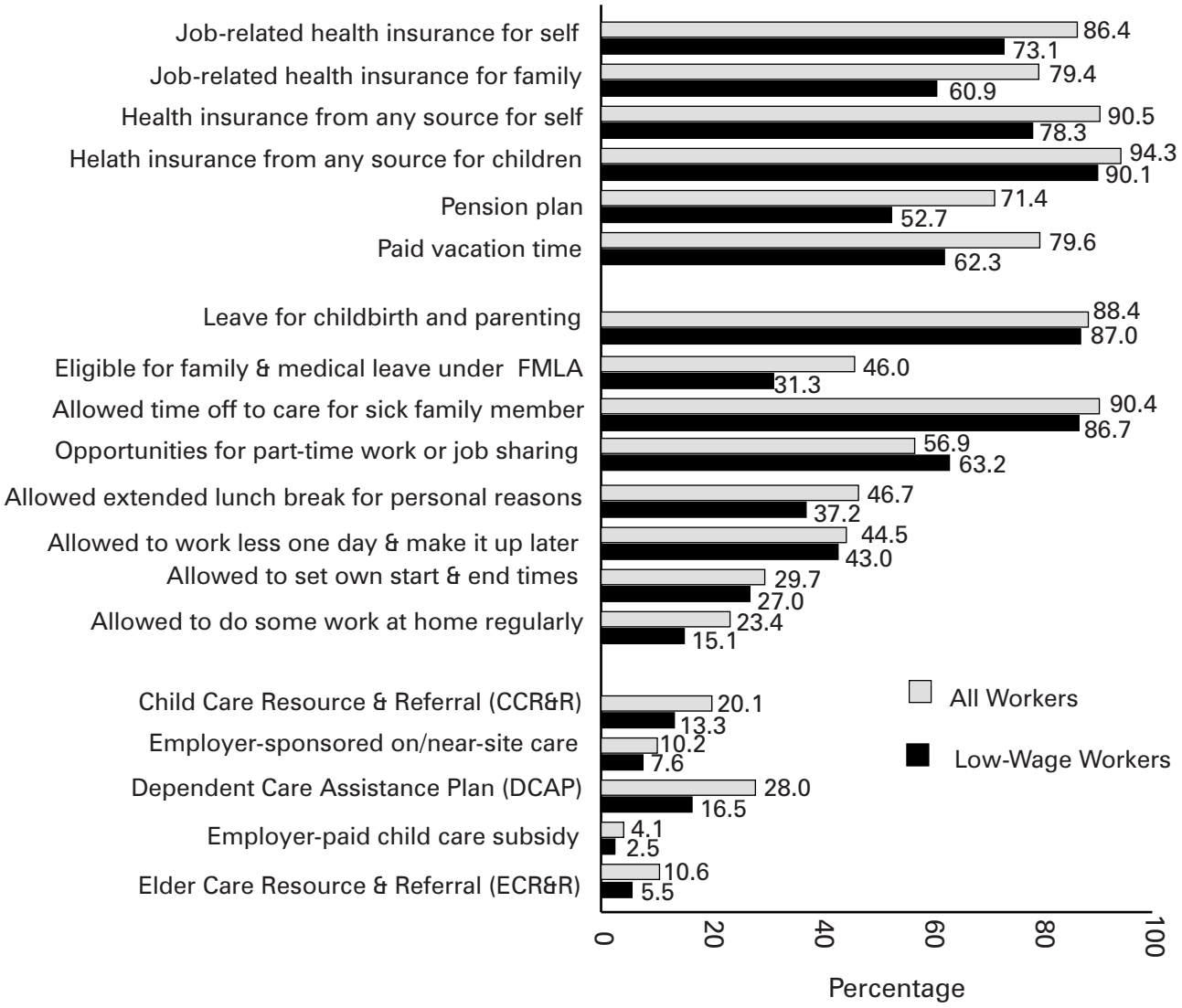
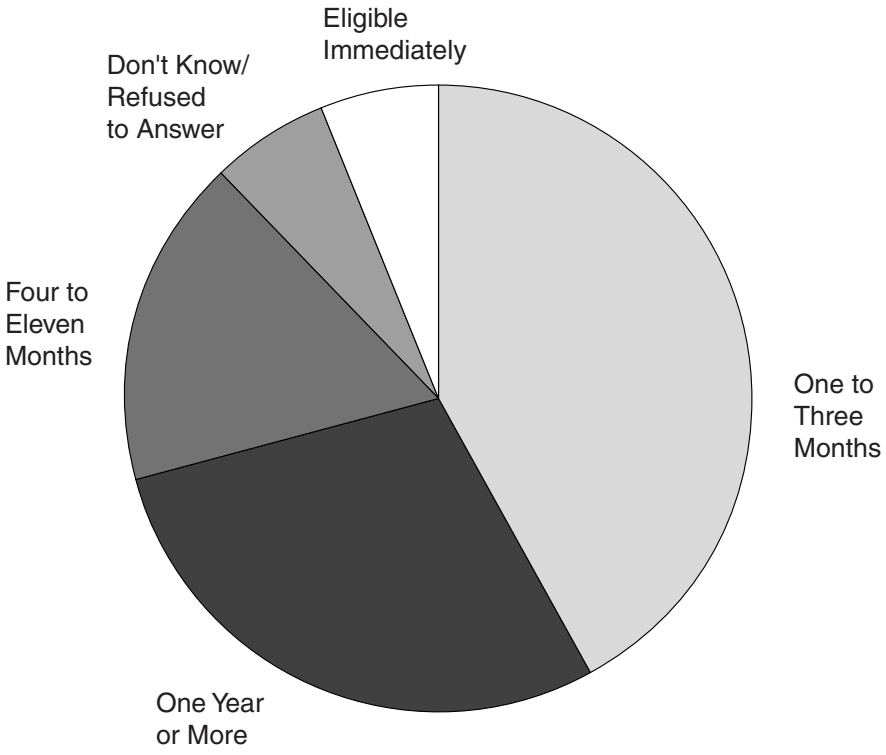


Table 4.7
Average Length of Time Entry-Level Employees Must Work for a Company to Be Eligible for Benefits, 1998

Length of Time	Percentage
Eligible Immediately	6.0
One to Three Months	42.0
Four to Eleven Months	17.0
One Year or More	29.0
Don't Know/Refused to Answer	6.0

Notes: This survey of employers was conducted by the Economic and Social Research Institute as part of the Urban Institute's *Assessing the New Federalism* project. A large number of the interviews were conducted with employers in the retail trade industry, including 33 percent in the restaurant industry and 23 percent in other retail services. Another 30 percent of the interviews were with firms in business services and construction; 7 percent in manufacturing; 4 percent in transportation, communication, and utilities; and 3 percent in agriculture. In the national sample, the number of interviews is weighted by establishment size to reflect the national distribution of businesses in these categories. For example, while 21.6 percent of interviews were conducted with businesses of 100 or more employees, such establishments make up only about 4.2 percent of total establishments in the United States. Thus, these values are weighted to reflect their real distribution nationwide.
Source: Economic and Social Research Institute: *Survey of Employers' Attitudes towards Hiring Welfare Recipients* (1998).

Figure 4.7
Average Length of Time Entry-Level Employees Must Work for a Company to Be Eligible for Benefits, 1998



About the Editors

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Demetra Smith Nightingale is a principal research associate in the Human Resources Policy Center at the Urban Institute, where she is director of the Welfare and Training Research Program. She is a nationally recognized expert in social policy and has for over 20 years focused her research on issues related to employment, poverty, and the alleviation of poverty. She is co-editor with Robert Haveman of the (1996) book *The Work Alternative: Welfare Reform and the Realities of the Job Market* and co-author with Eugene Steuerle, Edward Gramlich, and Hugh Heclo of the (1998) book *The Government We Deserve: Responsive Democracy and Changing Expectations.*