

== Chapter 1 ==

The New Labor Market

ALMOST three decades ago, Daniel Bell's *The Coming of Post-Industrial Society* foretold the shift from an economy based on the production of goods to one based on knowledge and technology. Bell and others saw great potential in this shift: It would change the nature of work, with professional, technical, and service occupations gaining dominance and education becoming the sole determinant of success. It would fundamentally alter the nature of capitalism, by moving power out of the market and transferring it to those engaged in the production of knowledge. It would result in social planning that was rational and analytical. New tensions and conflicts might emerge, but in the end, the vision was of a social system based on "theoretical knowledge as the axis around which new technology, economic growth and the stratification of society will be organized" (Bell 1973, 112).

It is ironic that immediately following the publication of Bell's book, a period of economic decline set in. First came the Organization of the Petroleum Exporting Countries (OPEC) crisis, stagflation, and the onset of manufacturing layoffs. The twin recessions in the early 1980s only served to reinforce the sense that America was losing its competitive standing in the work economy. Robert Hayes and William Abernathy (1980), in a landmark article entitled "Managing Our Way to Economic Decline," squarely placed the blame on complacent business strategies, citing U.S. productivity figures and rates of investment in research and development that lagged behind those of the other industrialized countries. A glut of popular books soon followed, diagnosing the country's ills and calling for Japanese-style management and production systems (Dertouzos, Lester, and Solow 1989). Some employers, such as Xerox and General Motors' Saturn plant, did respond with innovative reform, but on balance we did not see a wholesale adoption of the high-performance workplace, despite evidence of its productivity benefits. The Japanese model was instead

supplanted by another approach that seemed to emphasize just the opposite: the lean and flexible staffing that has become something of a fixture in the postindustrial landscape. By 1996, a full 78 percent of establishments reported using at least one type of flexible staffing arrangement (Houseman 1997).¹

Regardless of how circuitous the path has been, however, thirty years later it does appear that Bell's predictions are starting to come true—on some dimensions at least. Fully 80 percent of Americans worked in the service sector in 1999, productivity growth is finally ticking upward, and technology- and knowledge-based industries are the fastest-growing sectors in the economy.

Change has come at a steep cost, however. Starting in the mid-1970s, real wages stopped growing and even declined for certain groups in the labor force, a marked reversal from the postwar economic boom. To make matters worse, the degree of inequality in wages grew by roughly 30 percent. Either one of these trends alone is cause for concern, but in combination, they indicate a truly worrisome deterioration in workers' economic welfare. By the mid-1980s, articles on the declining middle class began to appear in both the popular and academic press. For a time there was even serious debate as to whether America might not be better off trying to resuscitate and rebuild its manufacturing base (Magaziner and Reich 1983; Cohen and Zysman 1987). Soon thereafter, the changing face of poverty generated a heated controversy on the growth of the "urban underclass." Early on, these trends were framed in the context of job flight overseas and especially the decline of inner-city manufacturing jobs (see Kuttner 1983; Auletta 1982; Wilson 1987).

By the beginning of the 1990s, however, the dominant explanation had shifted to the growing wage gap between "skilled" and "unskilled" workers. Two reports, *A Nation at Risk* (U.S. Department of Labor, U.S. National Commission on Excellence in Education 1983) and *America's Choice: High Skills or Low Wages!* (Commission on the Skills of the American Workforce 1990), pointed to the poor performance of American students on international achievement tests and argued forcefully that the problem lay in our education system and its failure to adequately prepare young workers. Although these reports were highly influential and yielded broad policy initiatives such as the School-to-Work Opportunities Act of 1994, it is surprising how quickly they, too, have become anachronistic in light of the resurgence of American competitiveness.

Viewed in retrospect, then, the past three decades have witnessed considerable turbulence both in the economy and in our attempts to understand what has been happening to it. The latter is not surpris-

ing, in that the focus of researchers and policy analysts is necessarily constrained by time and place. Nevertheless, perhaps we are now at a point where we can step back and begin to form a more sober assessment of the transition to postindustrialism. This is not to imply that the transition is complete—of course it is not—but rather to recognize that we now have much more information than Daniel Bell and his contemporaries had thirty years ago.

What stands out above all is the rise in economic inequality. It has not yet been reversed, despite the longest period of economic expansion in the postwar era and one of the tightest labor markets on record; and despite our best efforts we can only partially explain it. This may change, however, as researchers begin to take a long-term perspective and take stock of how economic restructuring has affected the nature of work and opportunity in America. This question is no longer simply a matter of growing wage differentials; it is increasingly about what it means to have a job and to build a career. The nature of competition and product markets, the structure of workplaces, and wages, compensation, and attachments to employers all look very different now than they did at the height of industrial capitalism. Compared with the postwar period, the American employment relationship appears to be changing—in how the workplace is organized, how workers are matched with jobs, and how wages and the terms of employment are set. In addition, as workplaces are restructured, potentially strong effects on economic mobility arise, effects that researchers are only beginning to address: “Perhaps the most important implications of the new employment relationship concern increased inequality in the workplace and, ultimately, in society as a whole” (Cappelli et al. 1997, 11).

The goal of this book is to push researchers and policy makers toward a sustained focus on how the life chances of American workers have changed. A true evaluation of postindustrialism cannot rest solely on employers’ competitiveness in the global economy; it requires a more balanced assessment of who benefits and who loses. Greater inequality has become firmly rooted in the new labor market, and we can no longer afford to write it off as a short-term structural adjustment. The effect on workers is likely to be permanent, manifesting itself throughout the course of the career and in the eventual attainment of a family-supporting income. Upward mobility—the hallmark of this country—hangs in the balance.

Ultimately, the question is whether we are seeing the emergence of a more fluid and open labor market, in which workers freely move to take advantage of rapidly changing opportunities, or a more rigid and segmented labor market, in which mobility from entry-level to

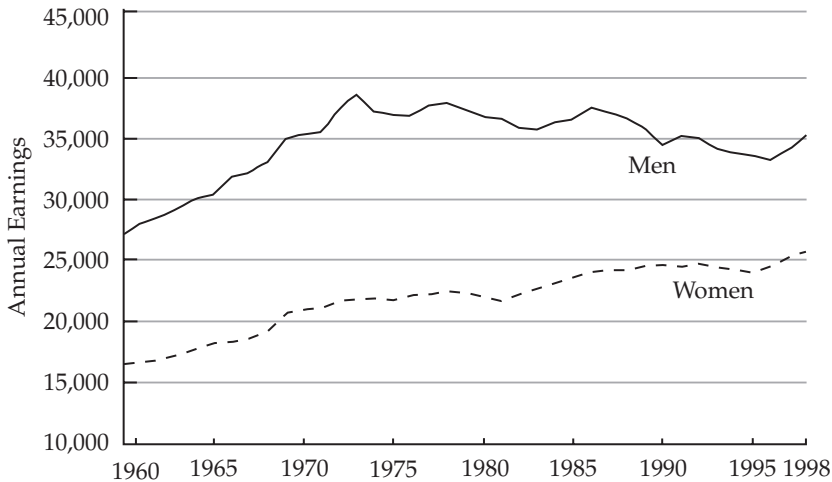
good career jobs is declining and some groups of workers are increasingly cut off from the chance ever to attain a stable well-paying job. The latter possibility has prompted Richard Freeman to warn of an emerging apartheid economy: “Left unattended, the new inequality threatens us with a two-tiered society . . . in which the successful upper and upper-middle classes live fundamentally different from the working classes and the poor. Such an economy will function well for substantial numbers, but will not meet our nation’s democratic idea of advancing the well-being of the average citizen. For many it promises the loss of the ‘American dream’” (Freeman 1997, 3).

The research reported in this book consists of an empirical inquiry into the nature of upward mobility and career development in this new postindustrial economy. Our strategy is to compare the experiences of two groups of young adults during the critical stages of their careers, when the majority of wage growth occurs and when long-term attachments to employers are formed. The first group entered the labor market in the late 1960s at the tail of the economic boom. The other began working in the early 1980s, after the onset of economic restructuring. This latter group is the first generation to experience the emerging labor market in full strength, and we use them to better understand how the rules governing success have changed, especially for the majority of workers, who do not attain a four-year college degree. By tracking their movements between firms and the consequent path of their wage growth, we can observe how economic restructuring has affected the opportunities to achieve a stable job and upward mobility. In this way, we hope to introduce a balancing perspective into current policy discussions, which have tended to be swamped by the economic boom and by the needs of the stock market—for example, lack of wage growth is now applauded as an economic indicator. It is time to put long-term trends in worker welfare back on the table.

The Rise in Inequality

There is by now a substantial history to research on cross-sectional trends in earnings and wages. The basic facts are as follows. Starting in the early 1970s and continuing to various degrees through the 1990s, earnings for male workers stagnated and even declined—this after several decades of strong and consistent growth (see figure 1.1). At the same time, inequality increased dramatically, again a departure from the past. Men in the lowest decile of the wage distribution saw their real hourly wages decline by 11.4 percent between 1973 and 1999, while those in the top decile held stable until the mid-1990s,

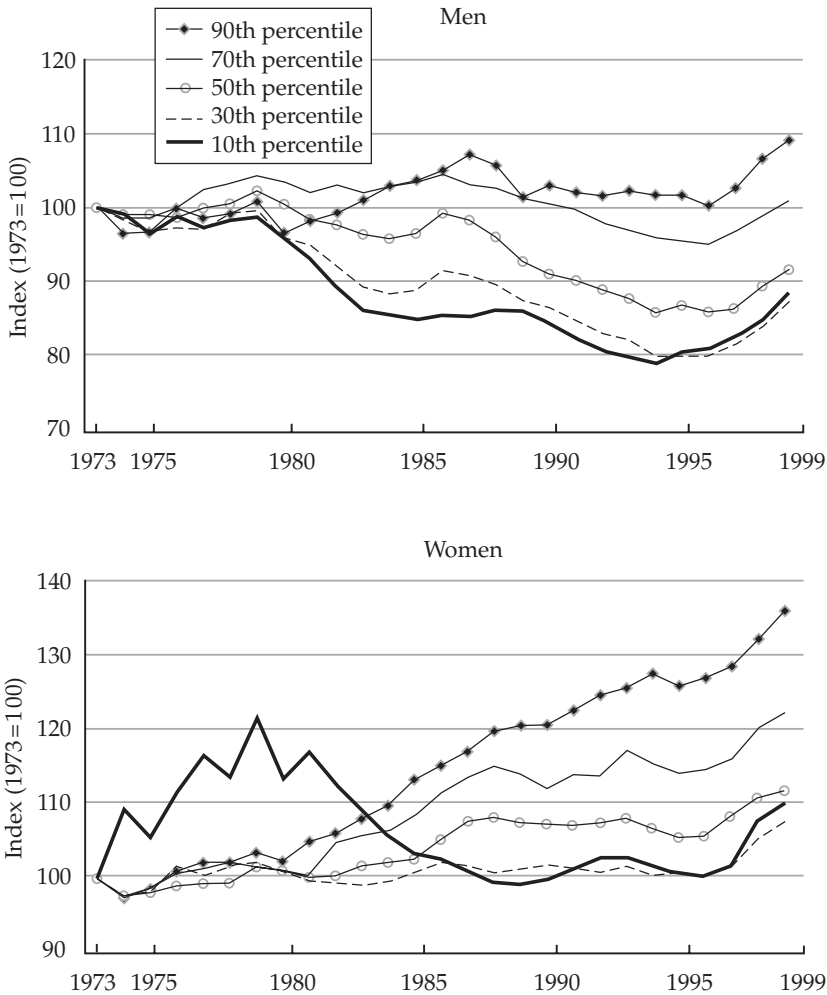
Figure 1.1 Median Annual Earnings for Full-Time, Year-Round Workers, 1960 to 1998 (1998 Dollars)



Source: Data from U.S. Bureau of the Census 1999.

when their wages grew by 9.2 percent; even the tight labor market and strong economic growth of recent years has not been able to erase this polarization (top panel of figure 1.2). Women, on the other hand, experienced real wage growth during this period, which contributed to a shrinking of the gender gap, although they did share in the trend toward greater wage inequality starting in the early 1980s (bottom panel of figure 1.2). Other measures show similarly disturbing trends. The poverty rate reversed its long-standing decline and started growing again, and the convergence of black and white wages has come to a near standstill.²

One of the engines driving these trends is changing the relative rise in the returns to education. Workers with college degrees did not see significant growth in their wages during the 1980s and 1990s but were generally able to hold their own ground. Workers with less education, however, saw large declines in real wages. The increase in the high school wage penalty between 1979 and 1995 varies from one labor force group to another (from around 30 percent to 60 percent); nevertheless, it is a broad-based trend and one of the central facts of the changing structure of earnings inequality (Mishel, Bernstein, and Schmitt 1997b; Autor, Katz, and Krueger 1998). Thus the prevailing dictum in both public and academic spheres is that “skill” has become increasingly important in the American labor market.

Figure 1.2 Change in Hourly Wages by Wage Percentile, from 1973 to 1999

Source: Data from Mishel, Bernstein and Schmitt 2001.

The education story is a descriptive one. It does not answer the critical question of just why education has become more valuable. Much of labor economics research in this area has therefore been devoted to identifying what has caused the shift in demand.³ The two main candidates within this framework are technology and the globalization of trade. The trade story, however, has been surprisingly dif-

difficult to document, notwithstanding the much-cited relocation of manufacturing jobs out of the United States.⁴ Almost by default, then, technological change has become the leading explanation. From this perspective, substantial numbers of American workers are not meeting the demand for technological acumen and thus find their wages declining, while at the same time, skilled workers are reaping the benefits of their qualifications.

This is an intuitively appealing and parsimonious account of the rise in earnings inequality, but as a comprehensive account it is not entirely satisfactory. Until recently, the skill-biased technological change argument was made by fiat, inferred from the structure of the growing wage differentials themselves (for example, Bound and Johnson 1992). We have begun to see studies that attempt to empirically demonstrate the effect of technological change in the aggregate (for example, Krueger 1993; Berman, Bound, and Griliches 1994), but these efforts compete with detailed case study research offering a more complex picture, one in which technology has served to both upskill and de-skill jobs, and close analysis of changes in skill requirements of jobs over time yields a mixed picture (see the reviews by Philip Moss [2000] and Peter Cappelli [1996]). Another key wrinkle is that the timing and rate of technological innovation do not easily match the timing of the rise in wage inequality (see Autor, Katz, and Krueger 1998; Howell and Wolff 1991; Mishel, Bernstein, and Schmitt 1997a). Perhaps most important, the changing returns to education explain only about a third of the total increase in inequality. More than half has occurred within groups of workers of the same age, education, and experience, and this residual has so far not been explained, except to assume that it simply reflects other “unobservable skills” that have also come into greater demand because of new technologies.

The utility of such a sweeping assumption is doubtful, especially given that other candidates have not yet been fully explored. To wit, it has become clear that firms are responding to increased competition and are restructuring work in ways that are not easily captured by the argument for technology-driven change. The business press abounds with examples of innovative companies that have created high-quality and high-paying jobs; yet just as prevalent are accounts of low-wage strategies, de-skilled jobs, the imposition of two-tiered wage systems, and substitution of contingent for full-time workers. Although there is no doubt that profound technological change has occurred, the story that unfolds across a number of industries is that firms often use the same technology (computers, for example) to reorganize jobs differentially, upskilling in some parts of the organization, automating and routinizing in others; thus, restructuring and technol-

ogy interact to produce different outcomes for workers, within the same industry and even the same firm. Frank Levy and Richard Murnane, in their classic literature review of the wage inequality field, end with a recognition of this diversity: "Some firms may choose to compete for larger shares of standardized products produced by low wage workers carrying out relatively simple tasks. Other firms may choose to tailor production to a high value-added, high quality product at the upper end of the same market. Both strategies may prove successful in generating profits, but with quite different consequences for workers' wages" (Levy and Murnane 1992, 1374).

In explaining the variability in firm strategies, observers have pointed to changes in corporate governance, deregulation across a host of industries, the decline of unionization and bargaining power, and the stagnant minimum wage.⁵ This is simply to reiterate a long-standing argument of institutional economists: firms' choices about the setting of wages and the allocation of labor are made within a network of constraints, which derive not just from product markets but also from institutions and regulations, as well as past choices and strategies made by the firms. Thus there is a growing sense that the environment in which firms make choices and pursue competitive strategies has shifted and that trends in the labor market and wage inequality are part of an unfolding system of industrial relations. If so, what does this new system look like?

A New Employment Relationship

For close to half a century, American industry profitably worked within the paradigm of mass production, the features of which are well known (Kochan, Katz, and McKersie 1986; Jacoby 1985). By World War II, the craft production system of the nineteenth century had given way to monopoly capitalism, driven by the centralization of capital and the consequent dominance of large firms. Under Fordism, products became standardized, growth was contingent on market stability and expansion, and Keynesian macroeconomics came to play an important role in balancing supply and demand.

Of interest to us here is what happened to the social organization of production. The old foreman system of shop-floor control was replaced by a combination of technical and bureaucratic control of the workplace (Edwards 1979). Unions played a critical role in this reformulation of industrial organization. The union was given a voice in setting wages, working conditions, and grievance procedures; in return, management had control over planning and company decision making.⁶ For jobs lower in the skill hierarchy, work was broken down

into simple, discrete tasks according to the principles of Taylorism. For jobs higher up the skill hierarchy, employers enjoyed a customized training system: because workers learned on the job, they brought firm-specific knowledge, tested skills, and commitment to each new position to which they were promoted. The result was a diverse system of job categories, each component of which was rigidly defined. Wages were attached to particular jobs, and on-the-job training and seniority activated the promotion process. Coupled with limited ports of entry, the result was strong job security and middle-class wages for a sizable core of workers.⁷

Thus the allocation of labor, worker mobility, and wage determination came to be largely governed by the internal labor market. It is important to understand that the benefits of this system also incurred a set of costs. Because employers made at least an implied and often a formal commitment to workers, their flexibility on a number of fronts was constrained (restrictive labor legislation also played a role in this). They could not easily hire from the outside nor change the number of workers being used, the tasks and functions they performed, or the wages and benefits they were paid.

Starting in the mid-1970s, the terms of this trade-off apparently deteriorated for American employers. The mass production system had reached the limits to its expansion, primarily because it could not maintain high levels of productivity gains in markets that were increasingly contested, saturated, and deregulated. Business leaders, policy analysts, and academics argued that the United States was facing another critical transformation of economic organization and that companies must therefore fundamentally alter the way they organize the process of work and production. New managerial models were developed, with the goal of restoring productivity growth and American competitiveness.

In practice, however, the way this goal is achieved varies enormously. Cost reduction has become an overriding basis of competition, and the problem, of course, is that internal labor markets are costly to maintain. Full-time, permanent workers with long tenures need to be paid high wages and benefits that can add as much as 30 percent to the wage bill. Some will sit idle during slack demand, and others will decline in productivity as their skills become obsolete—rigid job classifications do not easily accommodate products and technology that are in constant flux. At the same time, competitiveness has become a matter of flexibility in who is hired, for how long, for how much, and for which tasks (Hyman 1988).

Thus we are currently seeing a wide spectrum of firm-level restructuring and innovation in the search for flexibility.⁸ A stylized short-

hand for this spectrum is the distinction between “high road” and “low road” strategies. At one end lies the high-performance firm, characterized by just-in-time production, flat job hierarchies, and the use of total quality management (Dertouzos, Lester, and Solow 1989; Lawler 1986; Kochan and Osterman 1994; Womack, Jones, and Roos 1990). The success of these reforms is intimately tied to innovative human resource policies, such as self-directed teams, job rotation, and more-sophisticated employee incentives (Walton 1985). In addition, because a firm’s success depends on the skill and creativity of its workforce, it provides high wages, job security and mobility, and frontline decision making. At the other end of the spectrum lies the “lean and mean” firm, which emphasizes the bottom line. The production process is characteristically bare-bones, with labor costs and quantities used to make constant adjustments to market changes in product mix and demand (Harrison 1994; Cohen and Zysman 1987; Colclough and Tolbert 1992; Wood 1992). Frequently involved are union avoidance, the use of two-tiered wage structures, subcontracting as a means of reducing the size and cost of labor, and the surprising retention of some tenets of scientific management such as job fragmentation and de-skilling for part of the workforce. Rather than grooming workers for future advancement, these firms are more likely to minimize the number of full-time jobs, adjust to fluctuations in demand with contingent workers, and rely on the external labor market to provide skilled and up-to-date workers.

In truth, the dichotomy of high road versus low road is artificial and too rigid. Often, a mix of strategies is adopted within the same organization. For example, subcontracting and reliance on contingent workers may well be concomitant with high-performance strategies that protect the firm’s “core competencies” and therefore an inner group of stable, participative employees (Pfeffer and Baron 1988; Appelbaum and Batt 1994). Similarly, firms emphasizing the bottom line often exhibit innovative production practices that conform closely to the calls for flexible specialization and benefit well-placed workers in the organization (Rosenberg 1989; Piore and Sabel 1984). Thus, though we may well be seeing a divergence in firm practices, we are also seeing firms that increasingly contain both primary and secondary practices within them. In addition, relationships between firms have become more complicated, with deeper and wider networks of suppliers and contractors; and the externalization of work may produce more similarity in jobs within a given occupation than within a firm or an industry. As a result, the practices that govern hiring, screening, training, and labor supply—the labor market—also become occupation based.⁹ In short, not only are internal labor markets changing differentially, but so, too, are the external markets that link

the internal ones, to varying degrees in different sectors. Understanding this matrix of changes and how it has contributed to growing inequality is clearly one of the key challenges for future research.

It is also important to reiterate that the diversity in firm behavior has been driven not only by market forces but also by distinct changes in the institutional environment (Freeman 1996; Blau and Kahn 1999). Prime among these is the well-documented decline in unionization and its spillover into a distinct lessening of worker voice in general (Freeman and Medoff 1984) as well as legal changes in the regulations that govern the employment relationship (Friedman et al. 1994). Also intertwined has been governmental deregulation of a series of traditionally unionized industries, which has had strong effects on the distribution of work practices and wages (Vogel 1996). Researchers are only now beginning to document the profound impact of the shift in corporate governance toward shareholder control and institutional investors and the constant pressure for performance that has resulted (Christopherson 2001; Berg and Appelbaum 1996). Empirically measuring these types of institutional changes and their effects on firms is enormously difficult—never mind the task of untangling how recent institutional and market changes have been related. We do have some evidence of an ultimate impact on workers, however, because both deunionization and the declining minimum wage have contributed to the growth in wage inequality (the exact size of the effects varies by study; see Dinardo, Fortin, and Lemieux 1996, Freeman 1995, Card and Krueger 1995).

Thus the story of firm restructuring is a complex one. It does not lend itself to a simple, straightforward narrative of exactly how and why the American employment relationship has changed—and continues to change. Fully answering these questions will require more research at the firm level and also the passage of more time. There is no doubt, however, that a fundamental reorganization of work and production is under way in the American workplace, reflecting a “breakdown of the industrial relations system that was shaped by New Deal labor policies and the early institutionalization of collective bargaining” (Kochan, Katz, and McKersie 1986, 21).

The Effects on Upward Mobility

Clearly, more research needs to be done to elucidate the roles of both technology and firm restructuring in explaining the rise in economic inequality. However, our purpose in this book is not to adjudicate between these two explanations; in fact, arriving at a definitive account is not possible. The central dilemma in this field is that there exist no data that allow one to systematically link organizational re-

structuring and technological innovation to trends in worker outcomes. Such a project would require representative and longitudinal data over time (back to the start of the 1970s), with information at the firm level (changes in organizational ownership, subcontracting, occupational structure, employment, and salary levels across a large sample of firms) and at the worker level (changes in wages, work history, skill levels, family circumstances), providing the ability to match all workers to all firms. For better or worse, we will never have such data; even if we were to start collecting it now, the past thirty years are lost to us.

This means that the inequality debate will be resolved only indirectly, by triangulating between different sources of information. So far, we have cross-sectional data on wages, and we have case studies of firms and industries. The missing piece of the triad is longitudinal data on what has actually happened to workers' careers as they move through the restructured labor market and the mechanisms that have driven those changes. Cross-sectional data on wages can give us a representative snapshot of workers' well-being over time but provide only weak information on the causes that are operating. Firm and industry studies give us a more dynamic picture of actual changes in the workplace but do not reveal net effects on worker outcomes. The third piece of the puzzle, changes in upward mobility for a national sample, can begin to link these two sources of data. Ultimately, the way that global trade, new technology, and firm restructuring make themselves felt in the wage distribution is by changing the actual career paths that workers build and the degree of upward mobility they are able to achieve over the long run.

The point is simple: lying underneath the one-dimensional distribution of wages that researchers usually analyze is a complex and multidimensional set of individual mobility paths. Our goal in this book is to describe how the structure of mobility has changed over the past three decades and to draw out the implications for the rise in inequality.

It may seem like an odd time to take on the question of upward mobility. Productivity growth has improved, unemployment and inflation are low, and corporate profits as a percentage of gross domestic product are climbing. Workplaces have become more efficient, the adoption of new technologies is brisk, and American global competitiveness is on the upswing (Mowery 1999).

From the perspective of workers, however, there is a growing sense among the public that individuals' life chances are becoming more uncertain and more unequal (Frank and Cook 1995; Hacker 1997). This is not just a matter of good jobs versus bad jobs. At root, the public's concern with trends such as downsizing and dependence on contingent

workers has to do with the opportunities for workers to attain stable employment and upward mobility over the long run and the question of whether those opportunities have deteriorated. The intuition is that the strategies that firms have adopted in the search for competitiveness are affecting the structures that enable worker mobility. Both internal and external to firms, these structures include how work is organized, how workers are matched with jobs, how wages and the terms of employment are set, and who has voice in that determination (Doeringer and Piore 1971; Granovetter 1981). These processes ultimately give rise to the wage structure, “the complex of rates within firms differentiated by occupation and employee and the complex of inter-firm rate structures” (Dunlop 1957, 128). It is the systematic paths by which workers move through that wage structure over time that form the key feature of the labor market and that can tell us whether the distribution of mobility paths has changed (Spilerman 1977).

More concretely, if employment is being weaned from internal labor markets for significant numbers of workers, then this affects not only their current jobs but also their long-term career prospects. What happens to promotions, raises, and “climbing up the ladder” when employers hire externally for skilled jobs and invest less in entry-level training, especially for new technology? How do workers with only a high school diploma gain access to firms at which job titles have been collapsed and decision making has been pushed down to multiskilled, autonomous employees working in teams? What happens when low-skill jobs are removed from the organization altogether through subcontracting and outsourcing, to specialized “niche” firms that frequently pay less for the same work? How does flexible staffing and reliance on temporary, part-time, and leased workers affect ports of entry into the firm and workers’ ability to accumulate a broad set of skills?

The traditional routes to upward mobility break down under these conditions. In shifting some of the risk of doing business onto their workers, employers have also shifted the locus of career development: “Pressures from the product market are brought inside the company to employees by making compensation and job security contingent on organizational performance. Pressures from the labor market manifest themselves through more hiring from outside, career development increasingly across (rather than within) organizations, and greater use of contingent and contract labor” (Cappelli et al. 1997, 209). It is likely that skilled workers in professional occupations can create new career paths that preserve their opportunities; but for occupations further down the ladder—more numerous in absolute terms—the consequence may well be declining opportunities for upward mobility.

For example, table 1.1 shows the occupations with the largest projected job growth from 1996 to 2006. We might imagine that systems

Table 1.1 Ranking of Occupations, by Projected Job Growth from 1996 to 2006

Occupation	Projected Employment Growth			Most Significant Source of Training
	Number (Thousands of Jobs)	Percentage		
Cashiers	530	17		Short-term on-the-job training
Systems analysts	520	103		Bachelor's degree
General managers and top executives	467	15		Work experience plus bachelor's or higher degree
Registered nurses	411	21		Associate's degree
Salespersons, retail	408	10		Short-term on-the-job training
Truck drivers, light and heavy	404	15		Short-term on-the-job training
Home health aides	378	76		Short-term on-the-job training
Teacher aides and educational assistants	370	38		Short-term on-the-job training
Nursing aides, orderlies, and attendants	333	25		Short-term on-the-job training
Receptionists and information clerks	318	30		Short-term on-the-job training
Teachers, secondary school	312	22		Bachelor's degree
Child care workers	299	36		Short-term on-the-job training
Clerical supervisors and managers	262	19		Work experience in a related occupation

Database administrators, computer support specialists, and all other computer scientists	249	118	Bachelor's degree
Marketing and sales worker supervisors	246	11	Work experience in a related occupation
Maintenance repairers, general utility	246	18	Long-term on-the-job training
Food counter, fountain, and related workers	243	14	Short-term on-the-job training
Teachers, special education	241	59	Bachelor's degree
Computer engineers	235	109	Bachelor's degree
Food preparation workers	234	19	Short-term on-the-job training
Hand packers and packagers	222	23	Short-term on-the-job training
Guards	221	23	Short-term on-the-job training
General office clerks	215	7	Short-term on-the-job training
Waiters and waitresses	206	11	Short-term on-the-job training
Social workers	188	32	Bachelor's degree
Adjustment clerks	183	46	Short-term on-the-job training
Cooks, short order and fast food	174	22	Short-term on-the-job training
Personal and home care aides	171	85	Short-term on-the-job training
Food service and lodging managers	168	28	Work experience in a related occupation
Medical assistants	166	74	Moderate on-the-job training

Source: U.S. Department of Labor 1998.

analysts and general managers, though not wholly protected from the vicissitudes of a volatile labor market, can still eventually find a protected “core” job or, at the very least, build real wage growth as they move between employers. For cashiers, salespersons, information clerks, and nursing aides, however, the prospects look less promising. The gap between these “starter” occupations and “career” occupations has gotten bigger, and not just because of skill requirements. Especially in the service sector, the consolidation and siphoning off of key operations does not augur well for eventual mobility (for example, national customer-service phone centers in banking and telecommunications, or the temporary health-worker industry).¹⁰ It may be that other actors will emerge to replace some of the functions of the traditional internal labor market, as seems to be occurring in several large temp agencies such as Manpower. Whether such market-driven solutions can by themselves provide opportunity to low-skilled workers remains to be seen.

Much of this is conjecture, and so the larger point is that we simply do not know enough about what has happened to upward mobility. Although the trends in wage inequality have generated a prodigious amount of literature, little of it has examined the issue of mobility. Labor economists have generally restricted their focus to analysis of the determinants of the cross-sectional trends, and sociologists have generally concentrated on the differential impacts observed by race, sex, and region. However, the growth in cross-sectional inequality is equally consistent with a scenario in which young workers start in low-wage jobs and move to high-wage jobs by adulthood, or one in which some workers get stuck in a cycle of low-wage jobs while others experience strong wage growth over the course of their careers. The latter scenario clearly carries much higher stakes, in terms of overall social consequences and the challenge for public policy.

Mobility is therefore the key to a definitive assessment of the emerging postindustrial economy. For mobility is where the link between labor market structure and individual life history is made, where we gain insight into the dynamic processes that actually generate inequality, and where we assess how well America is meeting its meritocratic ideal.

As researchers begin to ask how firm restructuring has affected economic inequality, then, it is natural that we return to individuals’ work histories to analyze the dynamics of the new labor market. In fact, this strategy is basically the only one open to us, because firm-level data on mobility structures over time do not exist at a representative level. Current research has therefore begun to focus on analyzing longitudinal data sets, taking up such questions as whether wage

growth has deteriorated, whether the rate of job changing has increased, and how each of these processes unfolds over the life course (for example, Gottschalk 1997; Neumark, Polsky, and Hansen 1997; Duncan, Boisjoly, and Smeeding 1996; Gittleman and Joyce 1996). Mobility is again at the center of analysis.

Our study falls squarely into this emerging field of longitudinal research on job stability and wage attainment. We compare the career development and economic mobility of two cohorts of young white men based on data from the National Longitudinal Surveys.¹¹ The original cohort entered the labor market in the mid-1960s at the tail of the economic boom, and was followed through the end of the 1970s to the early 1980s. The recent cohort entered the labor market in the late 1970s and the early 1980s, after the onset of economic restructuring, and was followed through the mid-1990s. For each of the years that the two cohorts were followed, rich and detailed information was gathered on school enrollment, educational attainment, work history, wages, and job characteristics such as occupation and industry. This type of data is unique because it affords us a window on the complex process by which upward mobility is built over the key stages of the career. In addition, because the two cohorts are tracked across the same age range for the same length of time, comparing their progress enables us to isolate the impact of differences in economic context—the late 1960s and the 1970s versus the 1980s and early 1990s.

Our logic is that if indeed a new labor market structure is emerging in this country, then the recent cohort of young adults has been the first generation to experience it in full strength, and the impact should be observable in their work histories and wage growth trajectories. This is not to minimize the significant and often painful changes that mature workers have undergone over the past three decades. Our focus, however, is on upward mobility and career development, the majority of which occurs within the first decade and a half of work experience.

Moreover, cross-sectional research shows that young adults have been particularly hard hit by changes over the past several decades. Table 1.2 shows median weekly earnings for twenty-five- to thirty-four-year-olds in the major occupation groups for 1979 and 1996. The first panel describes a general decline in real earnings, most pronounced for traditionally unionized occupations such as machine operators but also strong in the low-end service and clerical occupations. These declines do not just reflect the economy-wide trend in earnings—the second panel shows that the earnings of young adults have declined as a percentage of all adults' earnings, as well, with similar patterns by occupation. We also know that the widening gap

Table 1.2 Earnings of Workers Aged Twenty-Five to Thirty-Four, by Occupation, 1979 and 1996

Occupational Category	Median Weekly Earnings			Median Weekly Earnings as a Percentage of Earnings of All Adults		
	1979 (Dollars)	1996 (Dollars)	Percentage Change	1979	1996	Change
Executive, administrative, and managerial	761	658	-13.5	87.1	75.8	-11.3
Professional specialty	720	699	-2.9	83.3	79.4	-3.8
Technicians and related support	655	601	-8.3	88.9	87.5	-1.4
Sales occupations	662	541	-18.2	91.6	86.7	-4.9
Administrative support, including clerical	612	438	-28.4	93.4	83.7	-9.7
Service occupations	474	356	-24.8	97.3	90.1	-7.2
Precision production, craft and repair	675	508	-24.7	96.3	86.1	-10.2
Machine operators, assemblers, and inspectors	569	408	-28.3	95.3	87.9	-7.4
Transportation and material-moving occupations	642	446	-30.5	98.0	88.5	-9.5
Handlers, equipment cleaners, helpers, and laborers	523	362	-30.8	96.8	92.1	-4.7
Farming, forestry, and fishing	391	310	-20.8	99.5	96.3	-3.2
Total	651	499	-23.3	94.1	83.2	-10.9

Source: Schrammel 1998.

between college graduates and those with less education has been most pronounced among young adults (Katz and Murphy 1992). In this context, the findings of a recent study on training are especially worrisome: young adults with high levels of formal education are significantly more likely to participate in employment-related training, including that provided by the employer, than are less-educated youth (Hight 1998).

Trends such as these give us an initial snapshot of what has happened to young adults in the new labor market, and the message is not encouraging. Again, however, they cannot speak to the deeper issues of economic mobility and career formation under postindustrialism. That is the purpose of this study.

Plan of the Book

A detailed summary of our findings is given at the end of most of the chapters; here, we simply give an outline of content. This first chapter has taken a broad view of current changes in the labor market and the historical context from which they emerged. In the next six chapters, we turn to a detailed analysis of our longitudinal data to reveal how the structure of long-term mobility has changed. In the final chapter, we return to the broad themes laid out here and discuss the implications of our findings, with respect to both trends in the employment relationship and the policies that are needed to address them.

In chapter 2, we provide an overview of the two National Longitudinal Survey cohorts, discussing our research design, samples, and measures and giving an in-depth treatment of the comparability of the two data sets. This material is key to understanding all of the analyses that follow. Chapter 3 also provides important background material by describing basic labor market trends over the past three decades. We document changes in educational attainment, in the mix of industries and occupations, in the amount of work experience gained, and in the transition from school into the labor market.

In chapter 4 we ask, Has job instability changed? One of the most important stages in career development is the process of job search, or "job shopping," wherein young adults experiment with different types of employers and work settings and hopefully are able to find a match that best suits their needs. It is also the case, however, that too much job changing is detrimental over the long run. Moreover, there has been much recent concern among the public that the "lifelong" job is on the wane and that job instability is growing. We therefore take a close look at the rate of job changing, exploring whether it has

increased in the 1980s and 1990s for young adults, and how the tenure distribution has changed.

In chapter 5 we ask, have the consequences of job instability changed? Regardless of whether or not there has been a secular rise in job instability, there might still be significant changes in its effects on workers' wages and careers. In fact, we know that the majority of lifetime wage growth occurs early on in adulthood and that much of it is driven by shifts to better-paying jobs. Has this dynamic changed in the new labor market, and are there any differences by education level?

In chapter 6 we ask perhaps the most important question: Has long-term wage growth changed? There are two parts to this analysis. The first examines the extent to which upward mobility has declined and become more unequal for the recent cohort as compared with the original cohort. Note that two aspects of economic well-being are being captured here, one absolute and the other relative. A change in the average amount of mobility means that everyone's boat is either rising or falling. Growing inequality in mobility means that some workers' boats are rising whereas others' are falling. When both absolute and relative mobility deteriorate at the same time, the effects on those with modest opportunity can be devastating. The second part of the chapter then turns to an analysis of the factors associated with the changes in wage attainment. We are particularly interested here in the role that job stability plays in the ability of workers to achieve long-term wage growth and in the extent to which education mediates this process.

Chapter 7 grounds the foregoing analyses with a detailed look at low-wage workers. Little is known about the actual careers of workers stuck in low-wage, high-turnover jobs over the long run. Yet such information has become particularly relevant with the advent of "work first" policies and the subsequent experiences of former welfare recipients. We therefore exploit the longitudinal power of our data and describe the labor market dynamics that underpin the "low-wage trap." We conclude in chapter 8 by stepping back and discussing what our findings imply about the causes that have driven the growth in inequality, as well as the policies that are most likely to reverse it.