

CHAPTER 5

Improving Skills and Incomes

BETWEEN 1973 AND 1994 the U.S. economy created 37 million additional jobs. This growth in employment absorbed an unprecedented number of new entrants, including millions of baby-boomers and women, into the work force and surpassed the record of the other large industrial nations. During this same period, however, slow productivity growth in the United States was reflected in slow growth in average real compensation. Indeed, real compensation per employed person increased more slowly in the United States than in the other large industrial countries (Chart 5-1). Even worse, income growth stagnated in the middle of the income distribution and declined sharply for those at the low end, causing insecurity and falling living standards for many Americans. The large declines in the real wages of less educated and lower paid workers were associated with increased inequality in family incomes and with growing rates of poverty among working families. For a growing number of workers without college degrees or significant on-the-job training, the American dream faded.

This chapter examines the factors that underlie the disappointing growth in the incomes of most American workers over the past 20 years and describes this Administration's policy responses.

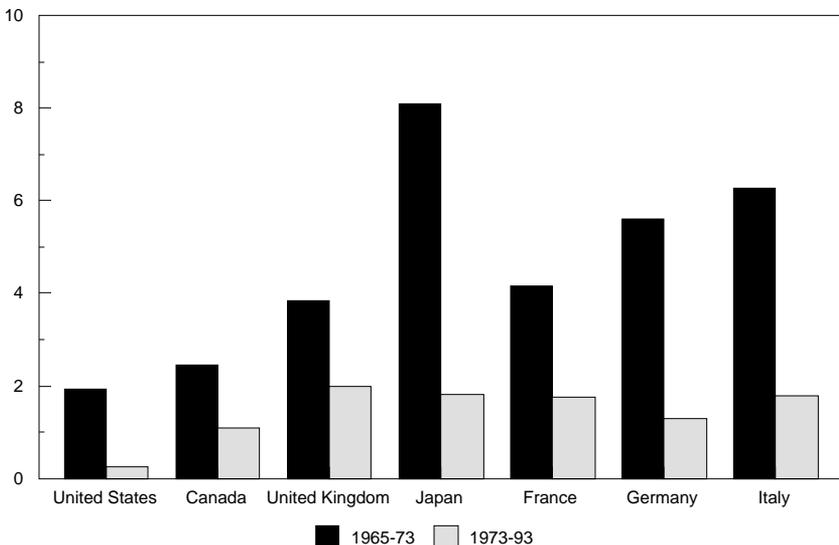
The sluggish growth of incomes is due to dramatic changes in technology and in global competition that have affected industrialized economies around the world, reducing the relative demand for workers with less education and training. Industrialized nations have differed in their response to these common changes. Since 1973, the U.S. economy has created more jobs than all of the European Community. But at the same time the other industrialized economies have experienced more rapid growth in wages and productivity and slower growth in inequality.

Although these differing patterns appear to suggest a trade-off between rapid job growth and high wage and productivity growth, this Administration believes that such a trade-off is not inevitable. To sustain rapid job growth while increasing growth in wages and productivity, the Administration has undertaken an ambitious agenda of lifelong learning to help American workers respond to the challenges and grasp the opportunities afforded by the new economic realities.

Chart 5-1 **Growth in Real Compensation per Person Employed**

Real compensation has grown more slowly in the United States than in the other major industrialized countries.

Average annual percent change



Note: Data for Canada begin with 1966.

Source: Organization for Economic Cooperation and Development.

WHAT HAS HAPPENED TO WAGES AND INCOMES

Compared with the preceding decades, family incomes over the last 20 years have either grown more slowly or actually declined at all income levels. This discouraging picture emerges no matter what statistical measure of compensation or inflation one chooses (Box 5-1).

SLOW GROWTH IN PRODUCTIVITY AND AVERAGE WAGES

Growth in average real compensation declined from 3.0 percent a year between 1948 and 1973 to 0.7 percent a year between 1973 and 1993. This decline parallels a similar drop in worker productivity growth, from 2.5 percent per year to only 0.9 percent. If real compensation had continued to grow at the same rate after 1973 as it had in the previous 25 years, the average compensation of a full-time worker in the United States in 1993 would have been \$62,400 instead of \$40,000.

The slowdown in wage growth can be seen within the span of a single individual's career. Sixty-two percent of men aged 22 to 26 in 1967 enjoyed earnings growth of over 40 percent by 1979; only 9 percent suffered earnings declines. In contrast, only 42 percent of young men in the 1980s enjoyed wage gains over 40 percent,

while the proportion of those with wage declines tripled to 26 per cent.

Box 5-1.—Measuring Trends in Pay and Inequality

Measures of changes in real pay differ across a number of dimensions: how inflation is adjusted for; whether pay is measured as wages per hour or earnings per year; whether it is limited to cash wages or includes benefits (the latter is referred to as total compensation); and whether the mean or the median is chosen as the measure of central tendency. All standard measures of pay show both a slowing of overall growth and a concentration of the bad news among those with less than a college degree; nevertheless, different measures show somewhat different patterns over the last few decades (Chart 5-2).

Mean and median wages differ. The mean is the average of all wages earned, whereas the median is the wage of the worker who falls precisely at the middle of the distribution, with half of all workers earning more and half less. Because wages at the high end of the distribution have risen much more rapidly since 1973 than those in the middle, the mean wage has risen more rapidly than the median.

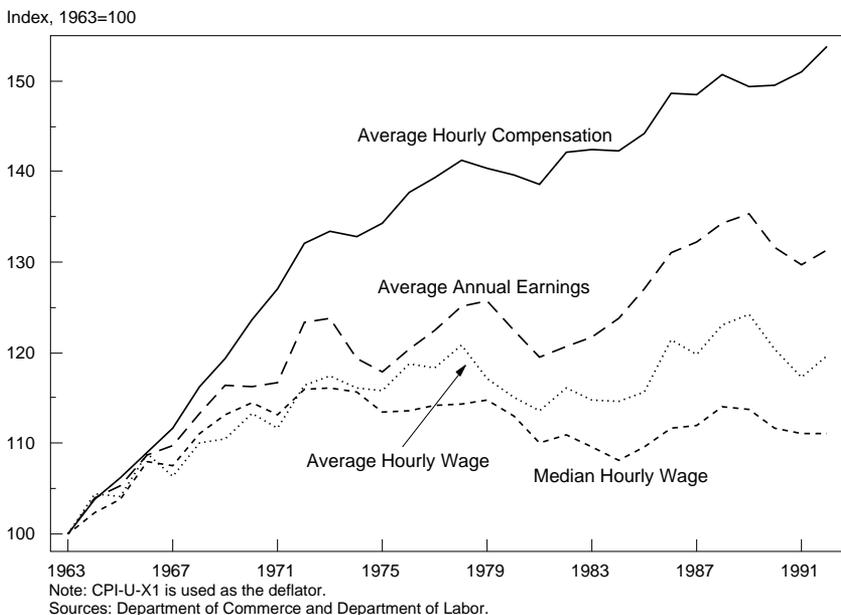
Wages differ from total compensation. Total compensation includes such benefits as health insurance and employers' contributions to pensions in addition to wages. Expenditures on these benefits, led by rising prices for health care, have grown rapidly since 1973. Thus, hourly compensation continues to grow more rapidly than wages, although both have slowed in the last 2 decades.

Hourly wages differ from annual earnings because the number of hours worked per year is not constant. The trend in overall hours is not clear, with employers, but not employees, reporting declining hours. This divergence may be due to an increase in unpaid overtime or work at home, but it remains an area of active research.

The method of adjusting for inflation makes a difference. As noted in Chapter 2, it is possible that actual increases in workers' cost of living have been smaller than trends in the consumer price index (CPI) would suggest. Consequently, standard measures that rely on the CPI may understate the growth in real pay. But the basic finding of slower wage growth since 1973 holds for all standard measures of inflation (although all suffer from possible mismeasurement of quality changes). In any case, the finding that wage dispersion has grown holds regardless of how inflation is measured.

Chart 5-2 **Growth in Various Measures of Real Pay**

Most measures of wages and earnings show a flattening of growth after 1973.



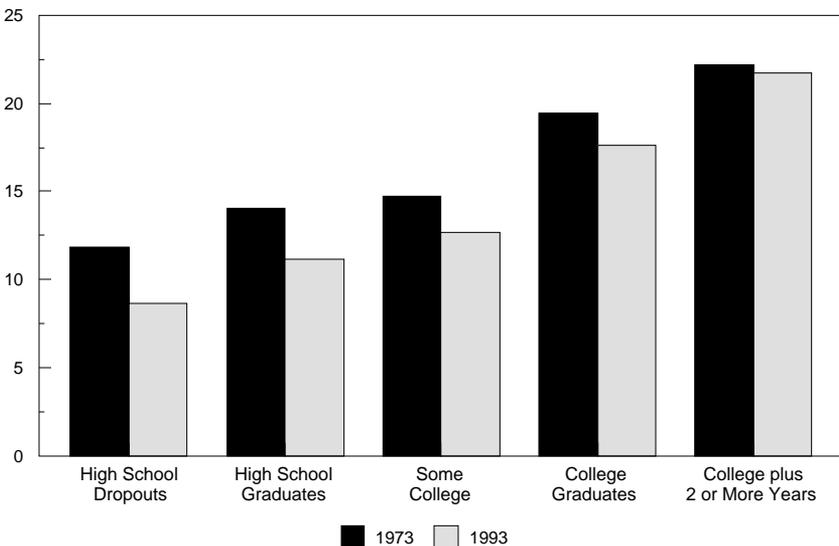
SLOWDOWN FOR MOST, STAGNATION FOR MANY

What growth there has been has not been shared by all Americans. The median real hourly wage fell by 6 percent from 1973 to 1993. The middle of the income distribution was hurt more by the slowdown than the top, largely reflecting a dramatic shift in the rewards offered in the labor market against those without a college degree or a high level of skill (Chart 5-3). For example, the average real wage of male high school graduates fell 20 percent, from \$14.02 per hour in 1973 (measured in 1993 dollars) to \$11.19 per hour in 1993. The decline was even steeper for male high school dropouts, whose average wage fell 27 percent over the same period, from \$11.85 to \$8.64 per hour. At the same time, the average hourly wage for males with a college degree but no further education fell by 9 percent, from \$19.41 to \$17.62. Hourly wages of those with a college degree and 2 or more years of additional education fell by only 2 percent, from \$22.20 to \$21.71. Trends for women show a similar though less extreme widening in the wage differential between those who went to college and those who did not (Chart 5-4). Wage dispersion also increased within demographic and skill groups. The wages of individuals of the same age, education, and sex, working in the same industry and occupation, were more unequal in the early 1990s than 20 years earlier.

Chart 5-3 Real Hourly Wages for Men by Level of Education

Real wages have fallen for men of all education levels, but those with the least education have been hurt the most.

1993 dollars

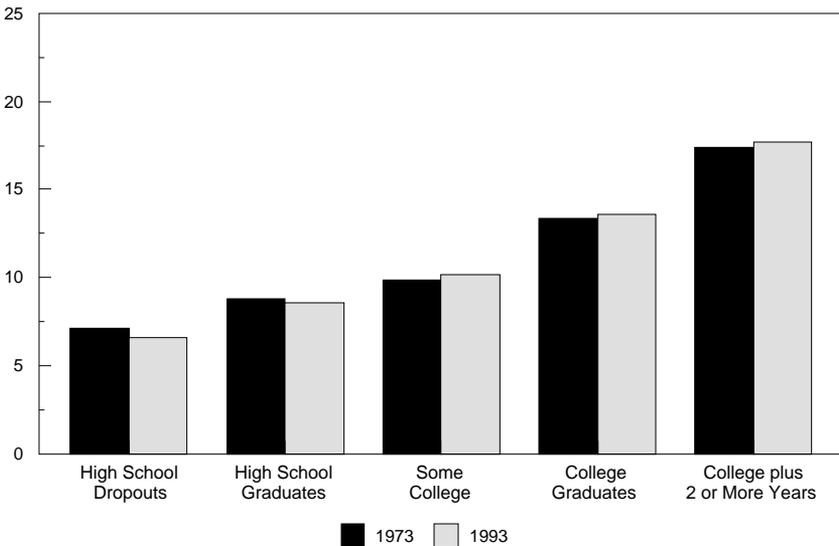


Source: Economic Policy Institute.

Chart 5-4 Real Hourly Wages for Women by Level of Education

Women with at least some college education have seen modest wage gains, while wages have fallen for those without.

1993 dollars



Source: Economic Policy Institute.

Another perspective on the decline in real wages can be seen by examining trends at points in the wage distribution other than the median (Chart 5-5). Between 1973 and 1993 real hourly wages of full-time male workers at the 10th percentile (that is, those whose wages are just above those of the lowest-paid 10 percent of workers) declined 16 percent, while real hourly wages at the median fell 12 percent. Over the same two decades, workers at the 90th percentile eked out a wage *gain* of 2 percent. The net effect is that levels of wage inequality for men have been greater in recent years than at any time since 1940. Women received wage increases throughout the wage distribution, but the gains were concentrated at the top. Women at the 10th percentile earned 6 percent higher wages, while those at the 90th percentile had gains of 24 percent (Chart 5-6).

The decline in wages for high school graduates was matched by a decline in benefits coverage. For example, whereas the proportion of the work force with education past college who have company- or union-provided health insurance has remained almost constant at over 75 percent since 1979, the comparable proportion of those with less education has declined markedly. In 1992, only 60 percent of high school graduates and fewer than 40 percent of those who did not graduate from high school had company- or union-provided health insurance.

As already noted, women were an important exception to the broad pattern of wage declines. Overall, the median real hourly wage of women who worked full time, year round, rose by 9 percent from 1973 to 1993, and rose as a proportion of the median wage for men from 63 percent in 1973 to 78 percent in 1993. Much of the improvement in women's earnings relative to those of men was due to the growing labor market experience of working women. In 1975 the average working woman had put in not much more than half (57 percent) the years of full-time work that the average male worker had; by 1987 that figure had risen to 73 percent. A second important factor was that women increasingly went to work in higher paid occupations that had previously been dominated by males. Statistics from several traditionally male professions reveal the size of the shift: from 1970-92 the proportion of female graduates from medical schools rose from 8 percent to 36 percent; the proportion graduating from law schools rose from 5 percent to 43 percent; and the proportion from dental schools from less than 0.1 percent to 32 percent.

FAMILY INCOMES

Incomes have stagnated for many American families as well as for individual workers. Family income as reported in U.S. statistics differs from annual earnings per worker both because there can be

Chart 5-5 Real Hourly Wages for Men by Wage Percentile
 Real wages have declined for all but the highest-paid male workers.

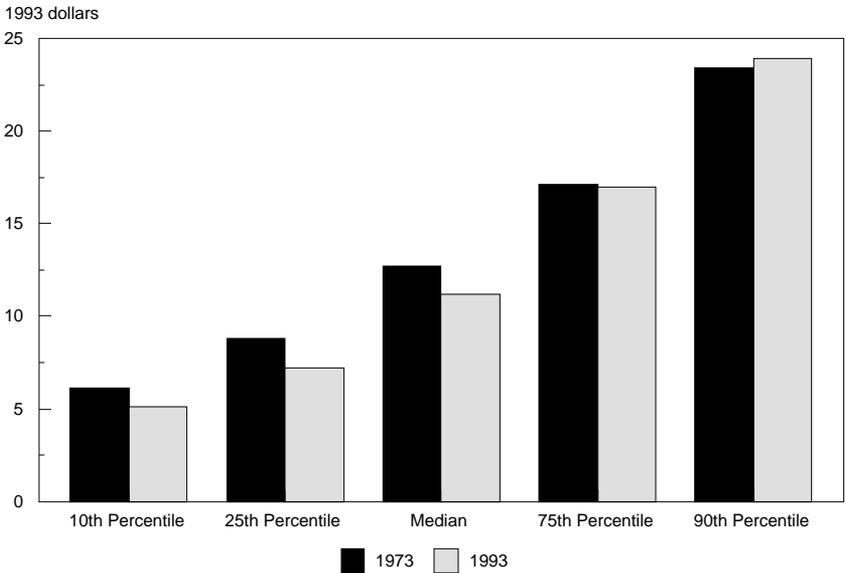
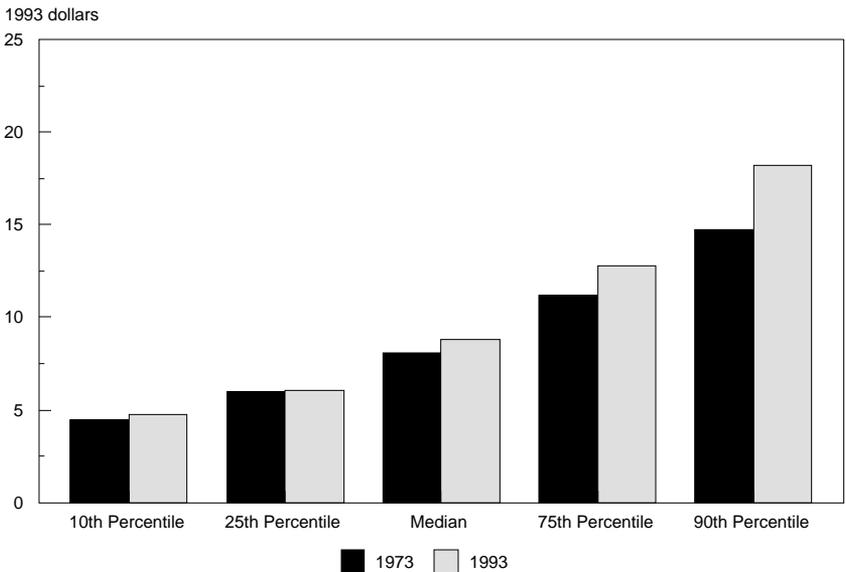


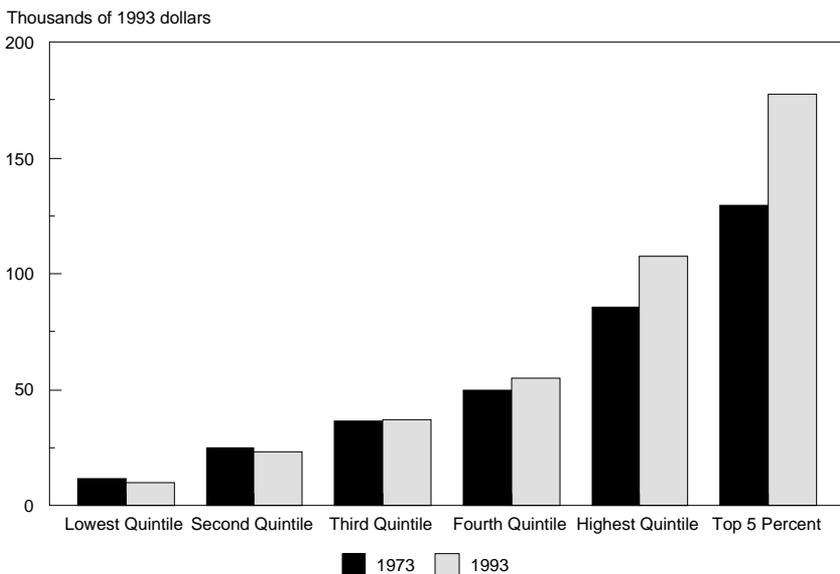
Chart 5-6 Real Hourly Wages for Women by Wage Percentile
 Women at all wage levels received increases in pay, but those at the top gained the most.



more (or fewer) than one wage earner in a family and because family income includes nonwage income such as interest, dividends, profits, and government transfer payments.

The median family income in the United States grew a meager 0.2 percent in the entire 20 years between 1973 and 1993—although hardly impressive, this performance at least was better than the outright decline in median hourly wages. In addition, there was a significant widening in the family income distribution. Average incomes rose 25 percent for those families in the upper fifth of the distribution, but fell by 15 percent among the poorest fifth of families (Chart 5–7). An important reason why median family incomes rose slightly while the median wage was declining is that married women now work more hours for pay. Between 1973 and 1992 the proportion of married couple families in which the wife worked for pay grew from 42 percent to 59 percent and those wives who worked for pay worked more hours.

Chart 5-7 **Average Family Income by Quintile**
 Incomes have fallen for the poorest forty percent of families.



Source: Department of Commerce.

RISING POVERTY

From 1960 to 1973 the Nation's overall poverty rate fell from 22 percent to 11 percent; it then rose to 15 percent by 1993. Poverty rates for children have been even higher: 27 percent in 1960, 14 percent in 1973, and 23 percent in 1993. The observed rise in poverty remains even after taxes and transfers are accounted for: pov-

erty rates by this measure rose from 9 percent in 1979 to 12 percent in 1993 (comparable figures are not available prior to 1979). The increase in poverty has occurred in spite of slow growth in average income over the last 20 years.

A large portion of the rise in poverty is due both to the increase in wage inequality discussed above and to a rise in the proportion of female-headed households. The proportion of children under 18 who live with one parent has nearly tripled, from 9 percent in 1960 to almost 27 percent in 1992. More than half of the children born in America today will spend time living in a single-parent home, either because of divorce or because the parents were never married. Because the poverty rate in female-headed families with children is higher, at 46 percent, than in other families, increases in the proportion of families headed by a single parent increase the poverty rate.

Many explanations for the increase in single parenthood have been proposed, ranging from the rise in women's labor force participation (which has increased women's ability to live without a husband), to the falling wages and employment of the men they might marry, to cultural changes reducing the stigma of divorce and unwed motherhood.

Some have blamed the rise in female-headed households on the welfare system. Although the current system has a number of problems (discussed in Chapter 1), careful studies have concluded that it has not played a major role in the increase in female-headed households. Nationwide, average benefits under the aid to families with dependent children (AFDC) and food stamp programs rose from 1964 to 1972, and during those years single-parenthood rates did rise; however, those rates continued to rise over the next 14 years even as the level of benefits fell by 20 percent in inflation-adjusted terms. In addition, States with more generous AFDC benefits do not have a higher proportion of children in single-parent households. Although welfare has not caused most of the changes in family structure, the welfare system does have aspects that discourage marriage—elements of the Administration's welfare reform proposal, discussed in Chapter 1, address these problems.

THE DECLINING FORTUNES OF BLACK AMERICANS

Black workers have been particularly harmed by recent earnings trends. After a decade of progress following the Civil Rights Act of 1964, the trend in the relative earnings of blacks to whites reversed. In the early 1960s, the wage gap between black and white men of similar age and with similar education was over 20 percent. This gap closed to less than 10 percent in the mid-1970s, but a significant proportion of this gain has since eroded. In addition, the employment-to-population ratio for black men over 20 years old has

declined, from about 6 percentage points less than the rate for whites to about 9 percentage points, over the last 20 years. The drop in employment is due to a decline in black labor force participation as well as increases in black unemployment. In some inner-city neighborhoods as few as 40 percent of black men are employed—that is less than three-fifths the male employment rate for the Nation as a whole.

In contrast to the decline in relative earnings, years of school completed and test scores among blacks have risen relative to whites. The difference in high school dropout rates between blacks and whites has narrowed sharply. From 1973 to 1992, dropout rates for blacks fell from 12.3 percentage points more than for whites to only 4.1 percentage points more. Black educational attainment (as measured by the National Assessment for Educational Progress) generally increased significantly from 1978 to 1992, while white test scores rose only slightly. But in many inner-city districts the dropout rate remains above 50 percent, and Hispanic dropout rates remain very high.

Inner cities have experienced poor job opportunities, more concentrated poverty, and low-quality schools. At the same time a majority of young black male high school dropouts have turned to illegal activities for income. Surveys indicate that young black men are more likely now than a decade ago to perceive greater rewards from crime than from regular employment. Young persons' participation in crime has adverse effects on their likelihood of future employment, especially if their activities lead to incarceration. These problems feed on each other: a child's chances of attending a low-quality school, becoming a teen parent, dropping out of school, living with only one parent, and having parents who do not work for pay are all associated with living in a poor neighborhood.

Racial and ethnic discrimination remains a significant barrier for minorities in the job market. Direct measures of discrimination in employment are available from experiments in which similarly qualified white and black candidates, or Anglo and Hispanic candidates, applied for the same job. In one such experiment, white applicants were found to be 24 percent more likely to receive significantly better treatment than black applicants, and Anglo applicants were 22 percent more likely to receive significantly better treatment than Hispanic applicants. In addition, among applicants who reached the interview stage, whites were over four times more likely to be offered a job than were blacks with similar qualifications.

Government antidiscrimination efforts became less aggressive in the 1980s, and this may account for some of the persistence of discrimination. An analysis of data collected by the Office of Federal Contract Compliance Programs (OFCCP) shows that enforcement

of affirmative action rules between 1974 and 1980 improved the job opportunities of black men and women as well as white women with Federal contractors. In the 1980–84 period the activities of the OFCCP were not as spirited as previously, and coverage by Federal affirmative action policies was no longer associated with gains in black and female employment.

CHANGES IN THE ECONOMY

Although a complete explanation of the declining economic fortunes of so many American workers and families is lacking, most economists believe that a shift in the demand for labor in favor of more highly skilled, more highly educated workers has played a key role. Such a shift is consistent with the fact that even though the percentage of the labor force with a college degree increased from 16.4 percent in 1973 to 27 percent in 1993, the same period saw a pronounced increase in the relative wages of college graduates (Charts 5–3 and 5–4).

In part, the shift in demand in favor of more educated workers reflects a shift in employment away from those goods-producing sectors that have disproportionately provided high-wage opportunities for blue-collar men, toward medical, business, and other services that disproportionately employ college graduates and women. In addition, employment has grown in such low-wage sectors as retail trade. These interindustry shifts appear to explain some of the decline in the wages of high school graduates over the last 20 years.

Intensifying global competition is also cited as a factor in putting downward pressure on the wages of less educated workers. However, a number of studies have found that the easily measured direct effects of trade on the wage distribution were small, implying that the vast majority of the demand shift originated domestically.

These effects of trade may be larger if the internationalization of the U.S. economy also affects wages indirectly—for example, if the threat of increased import competition or of the relocation of a factory to another country undermines workers' bargaining power. It is not known how important such effects have been. Trade may also become a more important factor in the future, as international commerce continues to expand.

Immigration has increased the relative supply of less skilled labor in the United States and has contributed to the increasing inequality of income, but the effect has been small. One study found that immigration explained less than 1 percent of the change in the college-high school wage differential between 1980 and 1988. Although immigration flows were considerably larger in the late 1980s than the early 1980s, this study makes it seem unlikely that

the recent contribution of immigration could be more than a few percent of the total change.

Within-industry shifts in labor demand away from less educated workers are the most important factor behind their eroding wages, not the shift out of manufacturing. On the basis of current research—much of which remains anecdotal or indirect in nature—most economists believe that such shifts in turn are primarily the result of economy-wide technological and organizational changes in how work is performed. The computerization of work appears important. Recent empirical evidence indicates that workers who use computers are paid on average 15 percent higher wages than those who do not. And the use of computers in the workplace has increased significantly in recent years: between 1984 and 1993 the share of the labor force using computers on the job increased from 25 percent to 47 percent.

In addition to shifts in labor demand, two institutional factors appear to have contributed to the increase in earnings inequality over the last 20 years. One of these is the decline in the proportion of workers belonging to unions. Empirical evidence suggests that unions tend to raise wages for workers who would otherwise be in the bottom half of the wage distribution. The share of the labor force belonging to unions fell from 26 percent in 1973 to 16 percent (and only 11 percent of the private sector labor force) today. According to recent studies, the precipitous decline in unionization explains a modest but significant portion of the increase in wage inequality during the last 15 years, especially among men.

The decline in the real value of the minimum wage has further contributed to greater wage dispersion. Adjusted for inflation, by 1995 the minimum wage has fallen by about 50 cents since 1991 and is 29 percent below its 1979 level, leaving it at its second-lowest level since the 1950s. Because women are almost twice as likely as men to work at minimum-wage jobs, the erosion of its value has had its largest effect at the lower end of the female wage distribution. Recent empirical research finds that modest increases in the minimum wage from historically low levels in the late 1980s were associated with reductions in both wage and income inequality without significant adverse effects on employment.

Of workers affected by the most recent (April 1990) increase in the minimum wage, 36 percent were the only wage earner in the family, and the average minimum-wage worker contributed about half of his or her family's total earnings. Contrary to some press reports emphasizing the youth of minimum-wage recipients, 70 percent were aged 20 and over. In part because of the changes in the wage structure discussed above, workers affected by this change in the minimum wage were more likely to be poor than in the past. About 20 percent of minimum-wage earners were poor,

and another 13 percent were near poor (earning between 100 and 150 percent of the poverty line).

IMPROVING EDUCATION AND TRAINING

It is becoming increasingly difficult for those without higher education to earn enough to support a traditional middle-class standard of living. Increasingly, however, a high school education is not enough. Fewer high-wage jobs remain for high school graduates, and even many workers with college educations face the prospect of stagnant wages. This is a fundamental change in the economy. Although government is not the cause, it has the ability and the responsibility to improve the way Americans are educated and trained so as to mitigate this adverse trend.

This Administration views education as, ideally, a lifelong process for all workers, particularly in the changing economic environment of today. Improved education and training opportunities not only should have a direct effect in increasing the incomes of those who take advantage of them, but may as a side effect improve the incomes of unskilled workers as well, as their relative supply is decreased.

In designing programs to promote lifelong learning, Federal policies operate in an environment where education is primarily the province of States and localities, and training is provided primarily by employers. Thus, the Federal Government's most effective role is often to serve as a catalyst for change.

Evaluations of many of the Federal Government's education and training programs have questioned their efficacy, although careful studies have found some programs to be highly successful. In designing new programs, the Administration has attempted to learn from these experiences, to imitate the successes and avoid the failures. In predicting future performance, it would be excessively pessimistic simply to extrapolate from the past failures; on the other hand, it would perhaps be overly optimistic to believe that we can bring all programs up to the level of the most successful just by replicating their best features. Yet there are certain features that many successful programs have in common—such as integrating different services to address problems with multiple aspects, and providing incentives that reward success—whose scope for broader application is far from exhausted.

THE QUALITY OF AMERICAN EDUCATION

By many measures, the quality of education in the United States has improved in recent years. Test scores in reading, writing, mathematics, and science have generally risen over the past decade for almost all ages and racial and ethnic groups. As noted above,

dropout rates have fallen, declining most sharply for black students. Enrollments in both preschool and postsecondary school have increased. Preschool enrollment rates have risen since 1970 from 14 percent of children aged 3 to 4 years to one-third. The percentage of high school graduates who enrolled in college following graduation increased from 49 percent in 1980 to 62 percent in 1992. Few other countries have postsecondary enrollment rates as high as those in the United States.

The United States still has far to go, however, to ensure that all its young people are acquiring the knowledge and skills they need to obtain high-paying jobs and adapt to future changes in the economy. High school dropout rates, for example, are still high, nearly 13 percent overall, and the dropout rate for Hispanics is over twice as high. Comparisons of U.S. and foreign test scores give additional cause for concern. Although test scores are imperfect measures of school quality, scores of U.S. students have generally risen. However, in the math portion of the International Assessment of Educational Progress in recent years, the United States remains among the industrialized world's laggards. U.S. students at both the 9-year-old and 13-year-old levels not only trail their Taiwanese and Korean counterparts—the world leaders in this area—but also lag behind students in every other major nation participating in the test.

THE IMPLICATIONS OF RISING RETURNS TO EDUCATION

Numerous studies have established that workers with more education earn substantially higher wages than workers with similar characteristics, such as age, experience, race, and sex, but with less education. However, this relation does not necessarily imply that raising the educational level of those who are now undereducated will lift their earnings substantially. It may be that those students who obtain the most schooling are those who start out with greater ability. Nevertheless, a number of innovative studies that address this problem still support the conclusion that, on average, students at all skill levels gain substantially from additional education. These results are consistent with the thesis that for many students growing up in low-income households, limitations on access to information and to funds for paying for education, not lack of payoff from further schooling, are major causes of their lower educational attainment.

POLICIES TO PROMOTE A LIFETIME OF LEARNING

The Goals 2000: Educate America Act, enacted last year, sets eight ambitious national education goals to be achieved by the end of the decade:

- *School readiness.* All children will start school ready to learn.
- *Improved student achievement.* All students will demonstrate competence in challenging subject matter in core academic subjects.
- *Best in math and science.* U.S. students will be first in the world in mathematics and science achievement.
- *Safe, disciplined, and drug-free schools.* Every school will be free from violence, disruptive behavior, and illegal drugs.
- *Increased graduation rate.* The high school graduation rate will improve to at least 90 percent.
- *Teacher education and professional development.* All teachers will have the opportunity to acquire the knowledge and skills needed to prepare their students for the next century.
- *Parental involvement.* Every school will promote parent-teacher partnerships that will increase parents' involvement in the social and academic enrichment of their children.
- *Adult literacy and lifelong learning.* Every adult will be literate and possess the skills necessary to compete in a global economy.

These goals establish a framework for a lifetime of continuous learning, starting before kindergarten and continuing throughout adulthood. New opportunities for all Americans to engage in lifelong learning should help rebuild the American dream that working hard and playing by the rules will lead to a higher standard of living.

Readiness to Learn

The first national goal is to ensure that all children start school ready to learn. Even good schools will have trouble educating children who come to school unprepared to learn because of poor nutrition or for other reasons. Some of these children will always find themselves struggling to catch up. The Administration is committed to expanding two programs that promote early cognitive and physical development and help prepare children for school. The first is the Special Supplemental Food Program for Women, Infants, and Children (WIC), which provides food supplements and health education to 6 million low-income pregnant women, new mothers, and their children up to age 5 annually. Funding for WIC increased from \$2.6 billion in 1992 to \$3.5 billion in 1995, with \$3.8 billion proposed for 1996. The WIC program has been shown to save the government money as well as increase children's health (Box 5-2). The second program, Head Start, also has a proven track record. Head Start is an intensive preschool program designed to improve the cognitive and social functioning, health status, and school readiness of low-income youth. Head Start funding has increased from \$2.2 billion in fiscal 1992 to \$3.5 billion in fiscal 1995, with \$3.9 billion proposed for 1996. The new funding has

been focused on improving program quality for children already in the program and in expanding the new “Early Head Start” program for children in the first 3 years of life.

Box 5-2.—What Works: Preparing Students to Learn

WIC has been shown by many studies to be highly effective in improving the health status of infants. In addition, WIC appears to be a money *saver*: for every dollar spent on the prenatal WIC program, approximately \$3.50 is saved in medicaid and other costs due to lower incidence of low-birthweight births and improved health. To the extent that poor prenatal care and infant health are associated with future behavioral and academic problems, the benefits of WIC are even greater.

Head Start and other preschool programs have also demonstrated their ability to improve preparedness for school. Numerous studies have found that participation in Head Start produces immediate gains in health and in scores on tests of intellectual ability, emotional maturity, and school readiness. They also find, however, that these gains in test scores decline over time. Nevertheless, some Head Start and other similar programs that have been evaluated over many years have found that participants are less likely to be assigned to special education classes, and are less likely to be held back a grade.

Improving Student Achievement

The Goals 2000 act provides a framework for comprehensive State and local efforts to improve both teaching and learning, based on clear and challenging academic standards for all students. The framework of Goals 2000 is meant to encourage the alignment of various aspects of the educational system including curriculum design, student assessments, teachers’ professional development, and instructional materials. These systemic reforms are voluntary, and their design in each State will be a group effort including parents, business people, educators, and others.

The 1991 reforms adopted in Kentucky are an example of the type of alignment Goals 2000 is intended to promote in other States. Kentucky adopted six broad goals and further refined these in 62 specific academic expectations. One of the goals, for example, is that students should be able to apply principles from mathematics, science, social studies, and other disciplines to real-life situations. In science, this goal translates into such concrete expectations as that students should be able to recognize and use patterns such as cycles and trends to understand past events and make predictions. The State’s major employers have been involved through-

out the reforms, helping to ensure that the schools' expectations match the needs of employers and future graduates.

The State's new goals are accompanied by new assessment procedures that combine traditional multiple-choice questions with tests requiring students to solve practical problems, and with evaluations of each student's best classroom work collected throughout the year. This new assessment better measures the full range of each student's progress. The assessment also is used to evaluate schools' success in improving student performance; schools that do well will receive monetary rewards, while unsuccessful schools will be required to develop plans for improvement. Coupled with the increased accountability, Kentucky is decentralizing decision making to school-based councils of teachers, parents, and principals on matters such as curriculum and assignment of staff. In addition, resources for professional development have been increased and family and youth service centers have been established at low income schools to provide and coordinate services for families such as child care, family counseling, and referrals to service agencies.

Results in Kentucky are preliminary so far, but encouraging. After 2 years, average test scores in core academic subjects increased markedly at all grade levels tested. Time will tell if these results are sustained and translate into better careers for Kentucky's graduates.

The reforms embedded in Goals 2000 and its companion legislation, the Improving America's Schools Act, are part of the Administration's effort to move away from rigid rules to a new model where the Federal Government provides seed money and technical assistance for States and local school districts to engage in their own reform efforts, keyed to high standards. The acts enhance local flexibility by providing States and local school districts the opportunity to better coordinate the activities of federally funded programs in their areas. Both acts allow States and school districts to apply for waivers of Federal rules that impede their plans for school improvement. The objective is to create a system in which highly skilled teachers can focus on achieving clear, widely agreed-on goals, assisted by parents and the community, who in turn can look to a set of well-defined standards by which to hold educators and school systems accountable.

Increasing Graduation Rates

Goals 2000 also focuses on reducing dropout rates. In addition, the Improving America's Schools Act ensures that Federal funds will be available to middle and high schools with very high poverty rates—schools that also have a high proportion of students at risk of dropping out.

This goal is important both to students at risk of dropping out and to society as a whole. On average high school dropouts earn

35 percent less per year than high school graduates with no additional education, and 70 percent less than college graduates, leading the average high school dropout to pay far less in taxes over the course of his or her working life than the average high school graduate. Dropouts are also more likely than graduates to end up on welfare or in prison. For example, on any given day in 1992 almost one-quarter of all males between 18 and 34 who had not received a conventional high school diploma—but less than 4 percent of those who had—were either in prison, on probation, or on parole. According to preliminary Department of Labor estimates, the typical young female high school dropout receives on average more than twice as much in food stamps and public assistance payments as high school graduates and almost five times as much as those with at least some college.

The present value of total welfare, prison, and parole costs averages about \$69,000 over the course of an adult lifetime for each individual who does not graduate from high school, but only about \$32,000 for each high school graduate who does not attend college, and only \$15,000 for those who attend college. (These figures are calculated as the net present value at age 18 of the costs of criminal justice and welfare incurred between the ages of 18 to 54, using 1992 data. Costs are discounted at a 4-percent annual rate.) Thus, ignoring differences in taxes paid, a program capable of influencing young people who would otherwise drop out of high school to graduate and behave like other high school graduates would reduce spending on welfare and the criminal justice system by about \$37,000 in present value terms for each youth induced to graduate. These figures are almost the reverse of public spending on education and training: on average, the typical college graduate is the beneficiary of over \$29,300 in public spending between the ages of 16 and 24, while the typical high school graduate receives about \$13,900 and the typical high school dropout less than \$6,500.

However, because high school dropouts differ from graduates along many dimensions other than the fact of dropping out, these calculations do not necessarily translate into potential gains for society whenever a student is kept in school to graduation. Furthermore, many dropout prevention programs are too new to have accumulated a substantial record of long-term results, and the current, incomplete state of research makes conclusions somewhat premature. Nevertheless, a number of programs for at-risk youth have been reliably evaluated and found to dramatically reduce dropout rates over several years of operation; in addition, the best of these programs appear to save the government money.

The evidence suggests that many students at risk of dropping out are helped by guidance, academic assistance, career information, and general support in order to stay in school and succeed. After-

school and summer programs and linkages to postgraduation jobs and schooling can be effective in keeping children in school and in improving academic achievement and other outcomes. The difficulty in improving the poor labor market prospects of youth once they have dropped out underscores the importance of efforts to reduce the number of dropouts. Although the current, incomplete state of research makes conclusions somewhat premature, two general observations may be hazarded.

First, it is possible to prevent students from dropping out, but it is difficult. A number of programs for at-risk youth have been reliably evaluated and found to reduce dropout rates substantially; many others, however, have not been so successful. Second, it is difficult to make initial gains last. Several programs have shown a pattern of marked improvement in attendance and academic achievement during their first year, but these initial gains often disappear over the next few years. Fortunately, there are models of integrated programs that have been effective in dramatically reducing dropout rates over several years of operation (Box 5-3).

From School to Work

The School-to-Work Opportunities Act, proposed by the Administration and passed by the Congress in 1994, addresses the increasingly poor job prospects of high school graduates by providing States and localities with venture capital to build systems that prepare young people to pursue a variety of options after completing high school: a good first job, career-oriented training, or college. The School-to-Work initiative funds partnerships among businesses, labor representatives, and educators to offer young people learning experiences in both school-based and work-based settings that will help provide them the knowledge and skills they will need to make a smooth transition into the world of work.

The School-to-Work initiative creates the opportunity for students to learn in a setting that connects academics with problems in a real workplace. The program integrates classroom instruction with work experience, structured training, mentoring at job sites, and matching of students with participating employers. Whenever possible, students are paid for their work. School-to-Work opportunities bring the workplace into the classroom, combining quality coursework at school with hands-on learning and training in a work environment. By the end of a course of study, students will have received a high school diploma, an industry-recognized skill certificate, and, for some, a diploma for completion of 1 or 2 years of postsecondary education.

In 1994 all 50 States received Federal funding to plan and develop School-to-Work Opportunities systems, and 8 States were already implementing comprehensive systems. In almost all cases, employers are directly contributing to the development of industry-

Box 5-3.—What Works: The QUOP Experiment

The Quantum Opportunities Program (QUOP) is an experiment in the use of community-based organizations to improve the academic and social competencies of disadvantaged students by providing continuing adult support throughout their high school years. In each of several cities, QUOP programs offer tutoring, adult mentoring, career and college planning, and other services and activities to children from families receiving AFDC, starting in the ninth grade. There is also a financial incentive: participating students receive small stipends and bonuses for completing segments of program activities, as well as payments into a trust fund for their eventual post-secondary education. Because participants were randomly chosen, the program provides a test of whether the combination of a rich array of services and tangible financial rewards for success, sustained over the whole of a high school career, can induce students to stay in school and out of trouble, and go on to college.

Over 4 years the average QUOP student participated in 1,286 hours of educational activities beyond regular school hours and accumulated \$2,300 in his or her postsecondary account. Overall 4-year costs of the program were \$10,600 per enrollee. At the end of the program's demonstration period an evaluation comparing randomly selected participants and nonparticipants (controls) found that 63 percent of QUOP students, but only 42 percent of controls, had graduated from high school. Only 23 percent of QUOP students had dropped out, versus 50 percent of the controls. And 42 percent of QUOP students, compared with 16 percent of controls, were enrolled in postsecondary education. Participants were also half as likely to report engaging in criminal activity and one-third less likely to have had children. The experiment was small, following only 100 students at four of the sites, and results varied widely across sites, yet for the experiment as a whole all these differences in outcomes were statistically significant.

The results of integrated programs such as QUOP defy the common presupposition that disadvantaged youth will not take advantage of, or cannot benefit from, enhanced educational offerings. Rather they support the notion that many students need both academic help such as tutoring and the incentive of being assured that academic success has a payoff, in the form of better prospects for employment or college.

based standards in broad clusters of occupations. By 2000 almost half a million young Americans are expected to have entered School-to-Work programs during their last 2 years of high school. To the extent School-to-Work programs are successful, they should benefit many students by connecting academic learning with problem solving in an actual workplace, thus making learning more relevant; they should also provide valuable labor market experience and connections. These programs should also benefit businesses by increasing the number of trained workers with experience in specific fields.

Better Access to Education After High School

Creating a system of lifelong learning for adults is another essential part of Goals 2000. The Administration is creating a system with a number of components, each applying not just to the traditional path of college education immediately following high school, but also to continuing education and training for those who have jobs or are between jobs.

Reformed student loans will reduce the burden of borrowing for college and for continuing education. Under the new Federal Direct Loan Program, individuals can borrow money for college directly from the Federal Government and can tailor their repayments to suit their financial circumstances. Borrowers will be able to choose from among four repayment plans—standard, extended, graduated, and income contingent—and to switch plans as their needs change. The standard plan, the one most widely used today, will continue to allow students to repay their loans in fixed monthly payments over 10 years. The extended plan provides for a smaller fixed payment but a longer term, from 12 to 30 years. Under the graduated plan, also with a 12- to 30-year term, the size of the monthly payment starts smaller than in the first two plans and increases over time according to a predetermined schedule; this should reduce the repayment burden in the early years when incomes are likely to be modest. Finally, the income contingent (or “pay-as-you-can”) plan takes the notion of graduated payment a step further: monthly payments are determined by the borrower’s actual income. This choice of plans makes it easier for graduates to start businesses, work in their communities, or meet other family responsibilities by better matching their loan service to their varying incomes.

In addition to lightening the burden of loan repayment, the Student Loan Reform Act restructures the Federal student loan program itself, phasing in direct lending to students over the next few years. Direct lending will significantly reduce the costs of the loan program by eliminating middlemen, thus streamlining the system. The savings are estimated at approximately \$6.8 billion over a 5-year period.

AmeriCorps, the national service program, lets Americans earn money for education while gaining practical experience as they serve American communities. Twenty thousand participants entered the program in 1994. By 1996 an estimated 100,000 AmeriCorps members will have served American communities. AmeriCorps participants will devote themselves to community service projects, chosen by local nonprofit organizations, such as teaching in urban school districts, wildlife habitat restoration, immunization of children, crime deterrence, and low-income housing restoration. In 1994 participants earned a \$7,640 yearly stipend for living expenses and a \$4,725 yearly grant for college or graduate school.

Additional initiatives to make continuing education affordable include the proposed income tax deduction and expanded use of individual retirement accounts for educational expenses, as discussed in Chapter 1. Both of these proposed changes in the tax code are intended to further lower the financial burden of pursuing post-secondary education.

FACILITATING LIFELONG LEARNING AND CAREER-LONG JOB MOBILITY

Training on the job or in a work-related setting tends to be especially well tailored to the requirements of the workplace. One study of work-related training, while not fully capturing the vital but hard-to-measure effect of informal on-the-job training, showed that the impact of such training on wages is of similar magnitude to that of more traditional schooling. (As with measures of the returns to education, these measures of the returns to training may be over- or understated if there are other, unobserved differences between those who do and do not receive training.)

Provision of on-the-job training is skewed in favor of those already relatively well educated. Among young college graduates 35 percent received training from their employers between 1986 and 1991, whereas only 19 percent of high school graduates and 9 percent of high school dropouts received any training during that time period.

Formal on-the-job training is considerably less common in the United States than in other industrialized nations such as Germany and Japan. Large Japanese companies train their workers far more than do their U.S. counterparts, partly because employees there are much less likely to switch employers. In Germany, high levels of training take place in formal apprenticeship systems that are supported by the government as well as by powerful industry and union federations.

Skill Standards

Skill standards can play an important role in increasing the supply of highly skilled workers and smoothing their transitions between jobs. The United States is unique among its major competitors in lacking formal mechanisms for national certification of most worker skills. This lack diminishes the portability of training and reduces the incentives for employees to invest in increasing their skills.

The National Skills Standards Act creates a framework for voluntary development of work force skills standards in broad clusters of occupations. The law promotes standards that include both the skills needed in the high-performance workplace (such as problem solving and teamwork) and industry-specific skills. Many industry groups are already at work designing their standards for occupations in their industries. A blue-ribbon National Skill Standards Board is being established to stimulate the development and adoption of the new voluntary skill standards.

Skill standards can also help alleviate imperfections in the market for training. Often training provided by one employer is useful to another. Thus, when trained workers change employers, the benefits to the first employer of its investments in training may be captured by the second. This reduces employers' incentives to train. Skill certificates developed in cooperation with industry leaders should reduce this market imperfection, since employees would be more willing to pay for training if it leads to a certificate that another company recognizes and will pay a premium for. These payments to employers for training may take the implicit form of lower wages during the training period, just as they do for traditional union apprentices or medical residents. Because of this implicit or explicit payment, employers would take less of a risk when they provide training. Some economic theory predicts that making general training more visible to the market will increase turnover, but in fact turnover is *lower* at many companies that pay for publicly certified training. The reason for the divergence of theory and evidence is unclear, although it may be that company-sponsored education increases worker loyalty, or there may be a selection effect, whereby hard-working employees are both less likely to quit and more likely to take advantage of company-sponsored education.

Building a Reemployment System

Each year more than 2 million U.S. workers permanently lose their jobs through no fault of their own, when plants close or there are mass layoffs. Although most dislocated workers find new jobs within 15 weeks of their job loss, it is estimated that 15 percent of all workers who were displaced between 1987 and 1991 remained unemployed for over 6 months. Older workers and those with less education were the least likely to find a new job after dis-

placement. Of those involuntarily displaced workers fortunate enough to find new employment, 47 percent suffered a decrease in their wages.

Just as the Administration's education policies focus on smoothing the transition from school to work, its labor policies focus on smoothing the transition from work to work and on increasing skills to avoid job loss. Workers often find the path from one job to the next beset with hurdles. Many do not know what other jobs are available, and having found out, discover they lack the skills to fit into any of them. And some who clear both those obstacles find that their new jobs do not work out, because for one reason or another employee and employer do not fit together well. These bad matches can increase turnover and reduce satisfaction and productivity.

To address these problems, the Nation's unemployment system is undertaking a transition of its own—to a reemployment system. A key element of the new system is one-stop career centers for all workers. The Administration is working with the States to create a nationwide network of local centers, offering job counseling and allowing workers to apply for jobless benefits and sign up for training programs all in one place.

An important element of the reemployment system is an easily accessible store of labor market information. The one-stop centers will build a data base of training providers. The data base could include such information as records of training providers' completion and placement rates and the average starting wages of their graduates. The centers will also provide information on job openings; on local employment trends, including the wages and skill requirements of occupations in demand; and on relevant Federal, State, and local programs.

The Extended Unemployment Compensation Act, passed in 1993, requires that all States establish and utilize a system for profiling all new unemployment insurance claimants to identify, and refer to job search assistance, those who are likely to exhaust their regular unemployment benefits and are at risk of experiencing long-term unemployment. In 1995 this program, similar to successful programs implemented in several States (Box 5-4), is expected to help an additional 150,000 Americans who have lost their jobs.

As one-stop centers, improved training and assistance between jobs, and improved labor market information come together to create a national reemployment system, movement between jobs should become smoother, and the economy should be able to operate at a lower rate of unemployment without the risk of pushing up inflation.

Box 5-4.—What Works: Profiling and Job Search Assistance

During the 1980s five States experimented with programs to change the focus of their unemployment insurance systems from passive provision of income support to active efforts at re-employment. The programs profiled unemployment insurance applicants and targeted those most at risk for long spells of unemployment for participation in intensive job search assistance and counseling. All of the experimental initiatives realized cost savings, the key to which proved to be finding new jobs for most newly unemployed workers quickly. The results demonstrated that it is cost-effective to focus job search assistance on those most at risk for long spells of unemployment.

The programs were rigorously evaluated through random assignment of clients to either an experimental group which participated in the program, or a control group which did not. On average, those receiving job search assistance found new employment from half a week to 4 weeks sooner than similar individuals in the control group. This reduction in unemployment not only benefited the workers themselves, but also saved the government between \$1.80 and \$4.80 for each dollar invested in profiling and job search assistance.

Facilitating Retraining

Needs for increased training are not well matched with the current complicated system of dozens of government-assisted training programs, each with its own rules, regulations, and restrictions. Therefore, the Administration has proposed replacing this complex system with a single coherent, choice-based system for adults. This proposal will consolidate nearly 70 current training or related programs. Dislocated or low-income workers would be eligible for “skill grants” of up to \$2,620 per year for 2 years, enough to cover tuition, supplies, and fees at a typical community college. Unlike the current system, in which government agencies often choose what training workers will receive and who will provide it, the new skill grants could be used at any eligible training provider, including community colleges and private technical schools.

An important element of this new system will be the labor market information system described above, in which users have access to the track records of local education, training, and job placement providers. With this information available, the power of the market and of informed consumer choice should work to weed out ineffective programs and reward those that help workers get the skills they need.

POLICIES TO IMPROVE WORKPLACES

Policies to increase the supply of skilled workers are important but may not be sufficient unless jobs are available that utilize the enhanced skills. Skills alone may not lead to high wages, high productivity, or even interesting work. This Administration is pursuing a number of policies to enhance the trend toward workplaces that rely on high levels of skill, lifelong learning, and continuous skill improvement.

High-performance workplaces typically are quite different from traditional ones. They have been transformed so as to give employees greater ability and the incentive to improve their workplaces. Workers' ability to generate good ideas is often strengthened by high levels of training and of information sharing. Forms of worker empowerment vary widely but often include work teams and forms of representative participation such as elected committees of workers or union representatives. Incentive schemes vary as well but typically reward individuals for learning new skills, reward groups of workers for their collective success, and build cohesiveness and solidarity more than individualistic competition. Motivation is also supported when companies ensure that the efficiency gains achieved by implementing workers' suggestions do not end up costing them their jobs.

Although it is difficult to obtain reliable nationwide data on the extent of employee involvement in decisionmaking, the evidence is that employee involvement and other plans spread rapidly during the 1980s. By the early 1990s the vast majority of very large U.S. companies had experimented with at least a small amount of employee involvement in at least a portion of their organizations, and many smaller companies were experimenting as well. At the same time, however, only a minority of companies reported widespread implementation of an integrated set of high-performance workplace practices.

The effects of the high-performance workplace can be impressive. The Department of Labor recently reviewed a host of studies on the effects of high-performance work practices on organizational performance. The result is a collage of evidence that a coordinated change in work organization can pay handsome rewards. For example, a multiyear study of steel finishing lines identified four distinct human resource management systems. The more innovative production lines had introduced problem-solving teams, higher levels of training, innovative incentive compensation systems, and higher levels of employment security, while the most traditional lines had few or none of these practices. The more innovative lines enjoyed significantly higher productivity. The most innovative lines ran 98 percent of the scheduled time, while the untransformed plants ran

only 88 percent of the scheduled time; plants intermediate in their introduction of innovative human resource policies were also intermediate in productivity. Plants with more innovative practices also produced higher quality steel. A separate study of steel mini-mills found that high-involvement plants not only excelled in quality and productivity, but also enjoyed lower turnover. These results have been replicated in a number of other industries, as well as in multi-industry studies. Several studies find that these innovative workplace practices are associated with financial gains, such as higher cash flow and stock market value.

MARKETS AND THE HIGH-PERFORMANCE WORKPLACE

If high-performance workplaces are so productive, why do they remain relatively rare in the United States? A number of factors can inhibit their spread, even when they hold the promise of improved outcomes for both workers and employers.

One problem is imperfect information in financial markets. Relative to other companies, high-performance workplaces usually invest heavily in employees' skills and in the company's reputation as a trustworthy employer and business partner. These investments frequently take years to pay off. Managers are able to inform investors about their investments through many avenues. Yet investors will almost always have better information on, and thus likely pay more attention to, investments that are reported in publicly available financial statements, comparable across time and between companies. Informing investors about investments in human resources is more difficult because no common language exists to describe them in a way that allows outsiders to assess their value. Partly because of these communication problems, corporate managers in a recent survey rated employee satisfaction, turnover, and training expenditures the 3 least important out of 19 measures of financial and nonfinancial performance to report to outside investors. These measures not only lagged earnings (ranked first) and capital expenditures (14th), but even lost out to corporate ethics statements (16th).

Because human resource investments are so hard to monitor, they may be especially sensitive to cutbacks during downturns in a corporation's cash flow. These information problems, plus the general difficulty that investors have in knowing whether managers are investing for the long run, can lead to inefficiently few high-performance workplaces.

The long-term commitment of high-performance organizations to their work forces can have favorable macroeconomic effects. Under reasonable assumptions, each firm that avoids layoffs helps stabilize demand for other firms' products, which the original firm's

workers, by keeping their jobs, are able to continue purchasing. High-performance organizations usually try to build trust and protect their investments in workers by minimizing layoffs. Thus, when an economy has many high-performance workplaces it may well find that its recessions become less severe.

The present system of unemployment insurance may well *encourage* layoffs. Employers in most States pay unemployment insurance premiums that are not closely related to their record of past layoffs. As a result, companies that avoid layoffs implicitly subsidize those that frequently lay off workers.

Another set of problems centers around deficiencies in the incentive system facing American managers. Many American managers have spent years in workplaces designed for top-down control, not for encouraging initiative from low-level workers. In addition, new work practices diffuse slowly partly for the same reason management initiatives often diffuse slowly—learning takes time. A number of innovations ranging from hybrid corn varieties to the divisional corporate structure have taken a generation or longer to spread to half the companies that would eventually adopt them, and employee involvement appears to be no exception.

A legal difficulty augments these problems: some high-performance work practices have been subject to challenge under U.S. labor law, which has developed within a decades-long adversarial system of worker-management relations. Some forms of substantive employee involvement have been found to be in violation of the National Labor Relations Act, because they are deemed the equivalent of “company-dominated unions” or blur the legal line between workers and managers.

The policy response of the Administration to the problems facing high-performance workplaces is to remove obstacles and to improve the quality and delivery of information that can facilitate private-sector initiatives. The Department of Labor has created a new Office of the American Workplace to reduce barriers that impede organizations from adopting high-performance work structures. Its initiatives include creating a clearinghouse of information on high-performance workplaces, creating educational programs for unions and for CEOs to learn how to work better together, and working with institutional investors such as pension funds to better measure which companies are investing in their people for the long run. To examine a broad range of workplace issues, including the legal difficulties mentioned above, the Administration appointed a Commission on the Future of Worker-Management Relations (Box 5–5).

The Administration is expanding the National Institute of Standards and Technology’s (NIST) Manufacturing Extension Partnership (MEP). MEP centers provide small- and medium-sized manufacturers with access to public and private resources, information,

Box 5-5: Reforming Workplace Regulation

In March 1993 the secretaries of Labor and Commerce announced the formation of the Commission on the Future of Worker-Management Relations to study what, if any, changes should be made in U.S. workplace laws and regulations to facilitate employee participation and reduce labor-management conflict. In January 1995 the Commission released a number of recommendations. These recommendations, and the reasoning behind them, included the following:

- In the 1920s and early 1930s many companies created company-dominated unions, largely in an effort to keep out independent unions. In response, the 1935 National Labor Relations Act banned company unions. Its definition of illegal company unions is very broad, however, and encompasses many legitimate employee involvement groups.

Recommendation: Continue to ban company unions, but amend the act to permit employee involvement groups that improve productivity and safety and only incidentally discuss employment terms and conditions.

- A company must hold an election on union representation if 30 percent of its workers sign a petition calling for such an election. But often the election is delayed for months by legal challenges such as disputes about the size of the bargaining unit. In addition, in about one out of four companies holding elections, a worker is dismissed for being pro-union; companies face no threat of punitive fines or sanctions for these illegal acts.

Recommendation: Elections should generally take place within 2 weeks of the request, with disputes settled afterward. Speedy elections should reduce the number of labor law violations, hence reducing concerns about the lack of penalties.

- Millions of American workers are injured and thousands killed on the job each year, yet safety regulations are often burdensome and ineffective and do not permit companies and workers to tailor their decisions to local conditions.

Recommendation: Require all but the smallest workplaces to have a formal safety program, meeting minimum standards such as regular safety training and investigation of all serious accidents. In workplaces with high-quality safety programs, regulators should reduce penalties and the frequency of inspections.

and services designed to increase firms' use of appropriate technologies and modern manufacturing practices. Building work force skill and a work environment that fosters a culture of continuous improvement is a major factor in companies' ability to benefit from these technologies. Thus, the Administration's MEP program is helping U.S. industry to move toward adoption of the high-performance workplace model. NIST is working with the Department of Labor's Office of the American Workplace and its Employment and Training Administration to create linkages between the extension centers and training and modernization services. In the future, small manufacturers will be able to work with a local MEP center for needs ranging from new technology to redesigning the entire workplace.

One means of promoting high-performance workplaces is through recognition programs, most notably the Malcolm Baldrige National Quality Award (Box 5-6). Because of its past success in encouraging quality performance, the award program is being expanded to make schools and health care enterprises eligible.

Box 5-6.—What Works: The Baldrige Award

The Malcolm Baldrige National Quality Award measures companies' progress on a number of quality goals. The company (or division) must provide evidence that it incorporates a focus on quality into management practices, works closely with suppliers, trains workers in quality techniques, and meets customers' desires. The completed application must be less than 70 pages. The examination process begins with a board of examiners scoring the written application. The examiners are recognized quality practitioners themselves, whose feedback the contestants value. High scorers then have site visits led by a senior examiner, and winners are selected by a panel of judges.

The Baldrige Award has been an effective catalyst for managerial change. More than 1 million copies of the award criteria have been distributed, and the award serves as the model in many companies' internal evaluations of their move to high performance.

Although few companies have won the coveted award, its effects are more broadly felt. For example, one truck engine manufacturer that was having serious quality problems applied for the Baldrige Award as a way of "turning a harsh spotlight on itself." Although the company did not come close to winning, the feedback it received led to valuable new practices concerning worker training and listening to truckers' complaints. Defect rates plunged from 10 percent to below 1 percent in only 2 years.

REINVENTING GOVERNMENT AS A HIGH-PERFORMANCE WORKPLACE

Reinventing government, as noted in Chapter 1, is crucial for creating a government that works better and costs less. One key element of this reinvention is to turn the Federal Government itself into a high-performance employer, one that relies on the skills and motivates the creativity of its employees (Box 5–7).

Box 5–7.—What Works: Empowering Civil Servants to Better Serve Citizens

One goal of the Vice President's reinventing government initiative is to empower Federal employees. Simply by listening to their good suggestions, the government can become a better provider of services. An example of empowered civil servants making good policy at the front line involves the restoration of the Santa Monica Freeway after California's Northridge earthquake of January 1994.

The Santa Monica Freeway is one of the most important transportation corridors in the United States, and for each day that it was shut down the local economy suffered about \$1 million in lost output. However, the highway administration often takes over a year just to develop a plan, solicit bids, review proposals, and award funding for a major project such as rebuilding the Santa Monica. Fortunately, the Chief of District Operations for the Federal Highway Administration in Sacramento had some ideas for improving the process.

The main ideas were to speed up the bidding process and to award large bonuses to contractors who finished ahead of the date proposed in their bid (and impose equally large penalties on contractors who missed deadlines). By accelerating the competitive bidding process and rewarding speedy completion, the Chief of District Operations and other empowered Federal employees helped finish in 84 days projects that would normally have taken 2 years. In addition, thanks to cooperation between groups ranging from Amtrak and the Army Corps of Engineers to the city's transportation department, traffic patterns were quickly rerouted, averting gridlock.

Reinventing procurement, as described in Chapter 4, is another key aspect of reinventing government. Part of reinventing procurement involves purchasing more goods and services on the basis of expected quality as well as low price. In the private sector many large customers have increasingly relied on certifications of the quality processes of their suppliers, often using certifications very similar—or even identical—to those of the Baldrige Award.

The Administration, drawing on successful private sector experience, is also beginning to use existing supplier certifications and awards to improve procurement. These efforts to promote purchasing from high-quality suppliers should not only save the government money but also increase the quality of U.S. jobs, because high-quality suppliers tend to rely on their workers for help in improving quality.

CONCLUSION

The U.S. labor market is a leader among the industrialized nations in job creation. At the same time, however, wages have stagnated for many Americans and declined markedly for those at the bottom of the income ladder.

No single policy will reverse this disappointing performance, but taken together, the policies described in this chapter can enhance the chances of all Americans to live prosperous, middle-class lives. These policies will increase the likelihood that children will be born healthy, enter school ready to learn, and stay there long enough to learn the skills they will need in the workplace of the future. Policy innovations in the labor market promise new entrants better prospects for finding a satisfying first job, and all workers a greater likelihood of smoother transitions between jobs and of continued learning on their jobs and throughout their careers. If successful, these policies will promote higher productivity and rising living standards, as well as make work more interesting for all.