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## Chapter 15

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# WORK, YOUTH, AND RETIREMENT AT HOME AND ON THE JOB

The \$20 hourly wage, introduced on a huge scale in the middle of the last century, allowed masses of Americans with no more than high school education to rise to the middle class. It was a maker, of sorts. And it is on its way to extinction.

—Louis Uchitelle, 2008

### INTRODUCTION

By 1940 working conditions on the job and in the home had already improved significantly from the toil, danger, and drudgery of the late nineteenth century. Most of the exodus from the farm to the city had already occurred. Large and small machines, most of them powered by electricity, had replaced the most dangerous factory work, such as that of the 1890 steelworker. An increasing fraction of jobs was in clerical and sales occupations that, however boring and routine, were safer and more comfortable than life on the farm or in the factory. The reduction in work hours from sixty to forty hours per week had already been achieved by 1940, and the forty-hour week was still standard in 2015.

Similarly, working conditions inside the home for women had improved by orders of magnitude. By 1940 most urban homes had central heating fueled by oil or natural gas, so wood and coal did not have to be hauled in. Clean running water had replaced the need for the housewife to carry pails of water into the home for laundry, cooking, and bathing. By 1940, about 40 percent of the households owned an electric refrigerator, and 44 percent owned some type of electric washing machine. Along these and other dimensions, working

conditions improved more dramatically from 1870 to 1940 than they have in the decades since 1940.

During the years of the baby boom between 1947 and 1964, women were busy raising children and therefore few considered market work a viable option. But starting in the late 1960s the female labor force participation rate began its gradual upward climb until a peak was reached in 1999. There is a debate in the economics literature over whether the universal adoption of electric household appliances between 1945 and 1965 had any effect on fertility or labor force participation. The temporary rise in the fertility rate during the baby boom period is best viewed as a change in taste for raising children caused more than anything by the hardships imposed by the Great Depression and World War II. Women flooded into the marketplace not in the 1950s, when most kitchens became equipped with the basic set of home appliances, but rather a decade or two after the appliances arrived.

The postwar period brought both progress and new problems. The share of the labor force engaged in manufacturing peaked in 1953 at about 30 percent and then declined, slowly at first, but then more rapidly after 1980 as the substitution of machines for labor, together with a surge of imported manufactured goods, eliminated jobs in one American manufacturing industry after another. By 2015 the share of manufacturing jobs in the labor force had fallen to 10 percent, and the disappearance of steady, well-paying union jobs brought with it a gradual erosion of the mid-1950s assumption that a blue-collar worker with no more than a high school education could own a suburban house and at least one car, if not two.

Beneficiaries from improvements in working conditions included not only adult males and females, but also youth, particularly teenagers, as child labor was replaced by universal high school education. The high-school completion rate steadily climbed from 10 percent in 1900 to 75 percent in 1970, with little further advance since then. Many students, particularly from the minority and poverty populations, fail to complete high school and are thus condemned to spend their lifetimes working in a succession of manual, routine jobs paying little more than the minimum wage.

During the early postwar period, the United States led the world in the percentage of young people completing college, thanks in large part to the GI Bill, which paid all college expenses for millions of veterans returning home from the war. But in the past two decades, the U.S. college completion rate has dropped from first place in the international league tables to no better than fifteenth. Although the percentage earning four-year degrees has continued

to creep up over the past decade to about a third, in recent years as many as 40 percent of these college graduates have been unable to find jobs requiring a college education. Even when adjusted for inflation, the price of college has increased by a factor of ten since the 1950s.<sup>1</sup> Rampant cost inflation has caused the price of a college education to spiral ever upward, and although fellowships and scholarships lighten the burden, particularly at the most selective schools, students have been forced to accumulate a burden of student debt that has now reached \$1.2 trillion.

Just as the quality of life for youth was transformed as child labor disappeared and high school completion became nearly universal, so there was a revolution in the life of the elderly after 1940. In the pre-1920 era, there was no concept of “retirement.” Workers “worked until they dropped”—that is, they kept working until they were physically unable to do their jobs, after which they became dependent on their children, or on church charity and other kinds of private welfare programs. The first step in the old-age revolution was the passage of the Social Security legislation of 1935 that provided for a nationwide old-age pension system. All workers would make contributions during their lifetime and then reap the rewards in the form of a guaranteed and secure Social Security pension.

While Social Security payments were relatively small, they were often supplemented by defined-benefit pension plans for employees of large corporations in the private sector and in most unionized public-sector jobs. Workers could now afford to retire when their pension payments began. The concept of retirement soon evolved as a time of leisure and generated a boom in the construction of golf courses, retirement homes, and retirement cities such as Sun City, Arizona, and there was a massive exodus from the northeast and north central states to states in the Sun Belt from California to Florida. As life expectancy has increased while the retirement age for Social Security remained fixed until recently, the portion of life spent in retirement has steadily grown, and the question of future funding for the Social Security system remains a hot potato that is regularly kicked down the road.

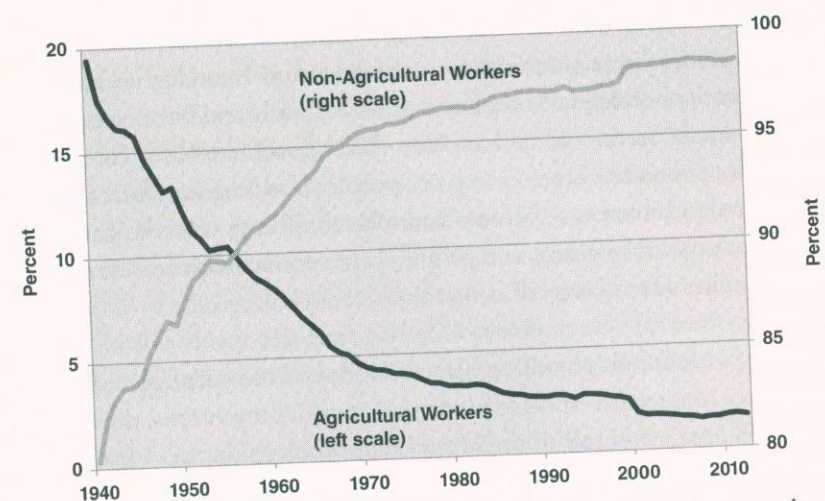
### FROM FARM AND FACTORY TO THE OFFICE CUBICLE: BETTER PAY AND SAFER WORKING CONDITIONS

The backbreaking toil associated with farming and blue-collar labor gave way to the physical ease of jobs in accounting, administration, engineering, management, and sales. Technological innovations that made workers much more

productive from 1900 to 1940 allowed them to make a seamless transition into white-collar employment, especially because the unemployment rate with the exception of two recession years remained at 5.5 percent or below throughout the two decades between 1950 and 1970.<sup>2</sup>

The decline of the percentage of employment in agriculture was inexorable but did not occur at a steady pace. It required the forty years between 1900 and 1940 for the agriculture employment percentage to decline from 40 percent to 20 percent. Progress since 1940 is displayed in figure 15–1, which shows that the percentage declined by half from 20 percent to 10 percent by 1953, by another half from 10 percent to 5 percent by 1967, and eventually to a low plateau of 2 percent during 2000–2013. The introduction of advanced machinery replaced farm tasks requiring physical labor, making that labor redundant on the farm but eagerly solicited in urban blue-collar and white-collar jobs, at least during the first half of the postwar era.

The transition from farming and blue-collar jobs to white-collar employment produced a significant increase in annual salaries and socioeconomic status. This rise in income levels was a major factor in the historic expansion of the middle class and its standard of living through the latter half of the twentieth century. With the decline of the American manufacturing sector and the rise of the service sector, jobs for many Americans became safer as workers left



**Figure 15–1.** Percentage of Employed Civilian Labor Force in Agricultural and Non-Agricultural Work, 1940–2012

Source: Table B-35, Department of Labor (Bureau of Labor Statistics), ratio linked back from 1940 to 1947.

dangerous industrial work for the minimal physical demands of the office cubicle. The growth of white-collar jobs improved safety around the workplace, and safety also greatly improved within manufacturing and mining. In the coal mining industry, the annual fatality rate per 100,000 miners dropped from 329 during 1911–1915 to twenty-five during 1996–1997.<sup>3</sup> The reduction in injuries and fatalities across mining and manufacturing lifted the scourge of income loss and disability for thousands of households.

Just as the invention of air conditioning facilitated the flight of retirees to sunny southern destinations, so it also benefited the productivity, not to mention the comfort, of clerical and other white-collar workers. Productivity was estimated to have been raised by 25 percent among government typists during the 1950s as a result of air-conditioning, and it was rated as the chief boost to worker productivity by 90 percent of American firms in a 1957 survey. And while air-conditioning ended sweltering conditions in the workplace, overall health saw a boost from lowered mortality rates. Rates of illness and death during heat waves were reduced as the percentage of households with central or room air conditioning increased from near zero in 1950 to 68 percent in 1993 to nearly 90 percent in 2013.<sup>4</sup> Once the home was air-conditioned, housework became more productive and leisure-time activities more enjoyable.

Seasonal cycles were determined by weather. Workers' productivity declined in direct proportion to the heat and humidity outside—and on the hottest days employees left work early and businesses shut their doors. Stores and theaters also closed down, unable to comfortably accommodate larger groups of people in stifling interiors. Cities emptied in summers.... Houses and office buildings were designed to enhance natural cooling, and people spent summer days and evenings on porches or fire escapes.<sup>5</sup>

Along with indoor plumbing, electricity, household telephones, and a host of other late nineteenth- and early twentieth-century inventions, the air conditioner is an iconic example of the impact of technology on the American standard of living. Because most indoor jobs benefited from air conditioning by 1970, that single invention may help to explain why the growth rates of labor productivity and total factor productivity were so much higher before 1970 than after that date.

Unprecedented growth in real wages in the 1950s and 1960s enabled families that had a high school graduate as the head of household to move into the rapidly spreading suburbs.

The expanding middle class had in it two distinct kinds of workers: white-collar and blue-collar. Back then, thanks to the wages won for him by his union, the blue-collar man (the gender specification is unavoidable) could live next door to the white-collar man—not to the doctor, perhaps, but to the accountant, the teacher, the middle manager. This rough economic equality was a political fact of the first importance. It meant that, in a break with the drift of things in pre-war America, postwar America had no working class and no working-class politics. It instead had a middle-class politics for an expanding middle class bigger in aspiration and self-identification than it was in fact—more people wanted to be seen as middle-class than had yet arrived at that state of felicity. Socialism in America, the German political economist Werner Sombart wrote in 1906, foundered upon “roast beef and apple pie,” a metaphor for American plenty. The expanding middle class of the postwar era—property owning, bourgeois in outlook, centrist in politics—hardly proved him wrong.<sup>6</sup>

The clear overlap between blue-collar and white-collar ambitions and success from the 1940s until the 1970s symbolized the egalitarian experience of a diverse and stable middle class. Claudia Goldin and Robert Margo chronicle the “Great Compression” of the American socioeconomic classes between 1945 and 1975. They assert that “if the decade of the 1980s created the rust belt, then surely the 1940s created the steel belt.”<sup>7</sup> This, combined with a gradual increase in the supply of educated workers, maintained the small variation in the wage structure for that thirty-year time period. A fortunate set of circumstances thus allowed the wage disparities of the late nineteenth and early twentieth centuries to narrow.

Just as the Great Compression coincided with the golden age of economic expansion, so the post-1975 rise of income inequality has taken place in an environment of slower overall economic growth. By some measures the median real wage has barely increased in the past three or four decades. During the years of the Great Compression, job diversity, steady incomes, and quality education

were self-reinforcing. But more recently, the bottom half of the income distribution has begun to drop out of the middle class.

If the average income of one's neighbors (and/or its correlates) indirectly affects one's own social, economic, or physical outcomes, then income segregation will lead to more unequal outcomes between low- and high-income households than their differences in income alone would predict. In a highly segregated region, then, higher-income households may be advantaged relative to lower-income households not only by the difference in their own incomes but by the differences in their respective neighbors' incomes.<sup>8</sup>

The correlation between average neighborhood income levels and individual socioeconomic status is exacerbated when the top groups take home an ever-increasing share of income and wealth. Between 1970 and 1998, the average income in the top 0.01 percent of the income distribution jumped from fifty to 250 times the economy-wide average income level.<sup>9</sup> The sharp division between the very top incomes and the average has replaced the Great Compression by the "Great Divergence." We return to the causes and consequences of rising income inequality in chapter 18.

### **THE FEMINE REVOLUTION: ROSIE THE RIVETER BECOMES A BABY-BOOM HOMEMAKER AND THEN A WHITE-COLLAR PROFESSIONAL**

The most important change in postwar labor markets was the rise of female labor force participation. Millions of women had obtained their first experience with work in the marketplace during World War II, when 5.2 million women entered the labor force. "Rosie the Riveter" became an overarching symbol for American female patriotism and service during the war, as the economy struggled to overcome an acute shortage of adult males. Thanks in part to the earnings of women, the war made possible a massive stockpile of savings, for workers were paid unprecedented wages yet had little to buy thanks to rationing and production prohibitions. The ratio of personal saving to household disposable income peaked in 1943 and again in 1944 at 27 percent, far above the normal peacetime ratio of 5 percent to 10 percent.

The end of the war in 1945 brought millions of returning veterans eager to return to civilian employment and to resume a normal civilian life, in which

raising a large number of children was regarded as an essential component. American households were ready to spend on whatever the rapidly reconverted factories could produce. All those labor-saving devices that had been invented in the 1920s and refined in the 1930s were soon on sale, and by 1960, the prewar American kitchen had been modernized, and new kitchens had been built in 20 million newly constructed housing units. With less time needed for chores, there was more time to care for children, and the fertility rate soared from 2.4 in 1945 to 3.3 in 1947, then slowly rose to 3.8 in 1956, but dropped back down to 2.4 by 1970.<sup>10</sup>

The high fertility rate kept women busy with the work of raising children and taking care of the house. By one estimate, "The average of sixty housewives of time spent on home production was 56 hours per week. This estimate included time spent in meal preparation and cleanup, care of clothing, house cleaning and repairing, shopping, physical care of children, oversight of children, and management of the household."<sup>11</sup> These homemakers worked longer hours and more days than their husbands, who typically worked between thirty-eight and forty hours per week. The larger the number of children, the greater the burden of work. Valerie Ramey's time use study specified that "if the youngest child was under one year of age, the housewife spent 17 hours more per week on home production. Each child age six or above added almost two extra hours. If the youngest child was between one and five years old, the housewife spent almost seven extra hours per week."<sup>12</sup>

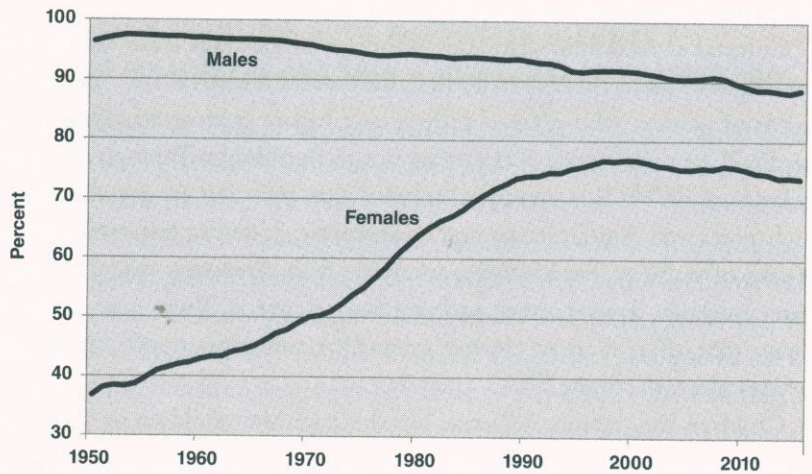
Cultural expectations drove down the age of marriage from the male and female ages of 24.3 and 21.5 in 1940 to 22.6 and 20.4 in 1970.<sup>13</sup> "In 1960, 60 percent of women who entered college quit before graduation, often to earn their Ph.T., as the practice of dropping out to Put Hubby Through school was jocularly called."<sup>14</sup> This common practice was reflected in popular culture, which portrayed American women as accepting domestic responsibilities for the sake of stability. For example, an article from *Seventeen* magazine stated, "being a woman is your career, and you can't escape it. There is no office, lab, or stage that offers so many creative avenues or executive opportunities as that everyday place, the home."<sup>15</sup>

Children kept women at home, but those without children or with grown children faced a daunting degree of antifemale discrimination, not just in obtaining jobs, but also in climbing the educational ladder necessary to start a career in a profession like medicine or the law. There is no better example than Sandra Day O'Connor, who later became a Supreme Court Justice but upon

graduation from Stanford Law School was turned down for interviews by forty law firms and initially managed to obtain work only as a legal secretary.<sup>16</sup>

Women were vigorously discouraged from seeking jobs that men might have wanted. “Hell yes, we have a quota,” said a medical school dean in 1961. “Yes, it’s a small one. We do keep women out when we can. We don’t want them here—and they don’t want them elsewhere, either, whether or not they’ll admit it.” ... In 1960 women accounted for 6 percent of American doctors, 3 percent of lawyers, and less than 1 percent of engineers. Although more than half of federal government employees were women, they made up 1.4 percent of civil-service workers in the top four pay grades.<sup>17</sup>

Starting in the mid-1960s, the end of the baby boom resulted in a prolonged period of growth in female labor force participation, as shown in figure 15–2. Despite the baby boom the labor force participation rate (LFPR) for “prime-age” females (aged 25–54) had already inched up from 34.9 percent in 1948 to 44.5 percent in 1964. Then began the period of most rapid growth to 69.6 percent in 1985 and then to a peak of 76.8 percent in 1999, followed by a slow decline to 73.9 percent in 2014.



**Figure 15–2.** Labor Force Participation Rate by Gender, Ages 25 to 54, 1950–2015

Source: Bureau of Labor Statistics, LNS11300061 and LNS 11300062.

Also shown in figure 15–2 is the contrast between the male and female LFPR. After a period of stability between 1948 and 1964, the prime-age male LFPR began to decline very slowly, from 96.8 percent in 1964 to 93.9 percent in 1984, 91.7 percent in 1999, and 88.2 percent in 2014. The difference in the male and female rates narrowed rapidly until 1999 and then remained stable; the male LFPR minus the female LFPR was 14.9 percentage points in 1999 and an almost identical 14.3 percentage points in 2014. We return in chapter 18 to the post-1999 decline in the LFPR for prime-age males and females, one of the “headwinds” that reduces hours of work per member of the population and thus contributes to slower growth in real GDP per person than in real GDP per hour.

As female participation rose through the 1970s and 1980s, so did female educational attainment. As a result of this together with a decline in gender discrimination, women found themselves climbing the employment ladder toward white-collar professional careers with advancement opportunities. Claudia Goldin, who calls it the “Quiet Revolution,” describes this period after 1970: “With more accurate expectations, they could better prepare by investing in formal education and they could assume positions that involved advancement. That is, they could plan for careers rather than jobs.”<sup>18</sup> Women began to become accepted as career-track professionals whose progress went far beyond the traditional pink-collar occupations. In 1960, 94 percent of doctors were white men, as were 96 percent of lawyers and 86 percent of managers. By 2008 these numbers had fallen to 63 percent, 61 percent, and 57 percent respectively.<sup>19</sup> The new environment was described in the early 1990s by Shirley Bigley, then a vice president of Citibank:

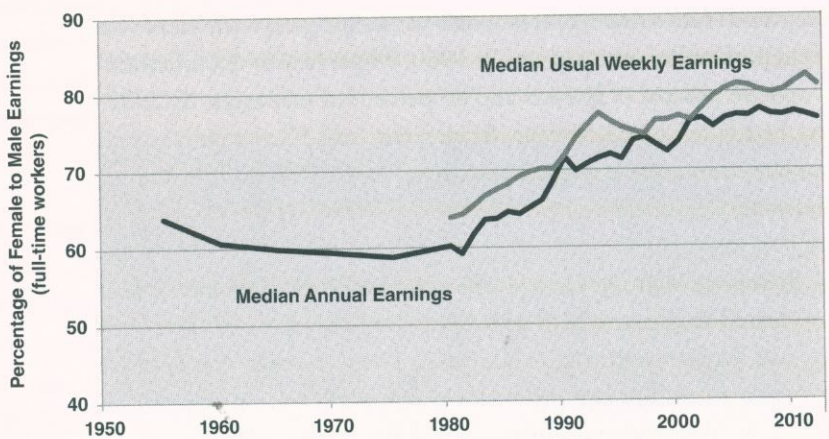
It was right in my vintage when the numbers of women dramatically started to change. My law school class was about 40 percent female, and it never occurred to me when I was younger that I wasn’t going to go to college and professional school. For the first time, the 1990 census shows women outnumbered men in Maryland in “professional specialty” occupations—a U.S. Census Bureau category that includes everything from doctors, lawyers, and scientists to teachers, nurses, and librarians.<sup>20</sup>

By 1970, cultural norms had changed enough to make labor market participation for women acceptable even if they had children still living at home. The labor force participation rate of mothers whose youngest child was between

ages 6 and 17 rose from 54.9 percent in 1975 to 69.9 percent in 1985 and to 76.4 percent by 1995. Similar increases were observed even for women with the youngest child younger than age 6. In some cases, very successful mothers pursued their careers while their husbands stayed at home with the children.

Seven of the 18 women who are currently CEOs of Fortune 500 companies—including Xerox’s Ursula Burns, PepsiCo’s Indra Nooyi, and WellPoint’s Angela Braly—have, or at some point have had, a stay-at-home husband. So do scores of female CEOs of smaller companies and women in other senior executive jobs. Others, like IBM’s new CEO, Ginni Rometty, have spouses who dialed back their careers to become their powerful wives’ chief domestic officer.<sup>21</sup>

Although the gender gap has not disappeared, since 1970 there has been substantial progress toward wage equality. As shown in figure 15–3, the percentage of annual median female wages to male wages jumped from 58.8 percent in 1975 to 71.6 percent in 1990 and 77.4 percent in 2010. The ratio for weekly



**Figure 15–3.** Gender Wage Ratio and Real Earnings: Median Annual Earnings and Median Usual Weekly Earnings, 1955–2012

Source: Annual data: 1955: Francine D. Blau and Marianne A. Ferber, *The Economics of Women, Men, and Work*, 2<sup>nd</sup> ed. (Englewood Cliffs, NJ: Prentice-Hall, 1992); U.S. Census Bureau, *Income, Poverty, and Health Insurance Coverage in the United States: 2010*, Table A-5, Weekly data: 1970 and 1975: Blau and Ferber (1992); 1980–2011: Weekly and Hourly Earnings Data from the Current Population Survey. 2013: Weekly Data from U.S. Bureau of Labor Statistics, *Median Usual Weekly Earnings of Full-Time Wage and Salary Workers by Selected Characteristics, Annual Averages*.

earnings was an even higher 81 percent; the less favorable ratio for annual earnings reflects the smaller number of weeks per year worked by women compared to men.

In recent years faster progress for women has been accompanied by slower progress for men. Women aged 30 or younger make more money, on average, than their male counterparts, with the exception of in the three largest U.S. cities.<sup>22</sup> What's more, three men lost their jobs for every woman during the recent recession.<sup>23</sup> Much of this is a result of male domination of blue-collar industries versus female dominance in white-collar work; males constitute 87 percent of workers in manufacturing and 71 percent in construction.<sup>24</sup> The combination of the rising share of women working in the professions, together with the dominance of male employment in declining industries, implies that many women have been able to surpass men in terms of job stability and advancement.

However there remains the fact that as of 2010, the median female-male ratio of annual earnings was still only 77 percent, even though the percentage of women completing college has exceeded that of men for more than three decades. As pointed out by Goldin (2014), the fraction of the gender wage gap that can be explained by identifiable characteristics "decreased over time as human capital investments between men and women converged. Differences in years of education . . . narrowed. In consequence, the residual portion of the gap rose relative to the explained portion."<sup>25</sup> Goldin's analysis of the residual gap distinguishes two different sources of gender-related wage differences, those between occupations and those within occupations. Despite the increased professionalization of female occupational choices, the occupational composition of women is still quite different than men, particularly when skilled pink-collar occupations are compared with skilled blue-collar occupations. For instance, virtually all midwives are female, and virtually all cement contractors are male. Goldin concludes that these occupational choices explain only about a third of the residual gender wage gap, leaving the remaining two-thirds to be explained within occupations.

Goldin's analysis of within-occupation wage differences centers on the age profile, which shows that "something happens that decreases women's earnings relative to those of men as they age." Stated another way, the positively sloped age profile of male wages is steeper than female wages. For women born around 1963, the earnings gap is 10 percent for the age group 25–30 and widens to 35 percent for the age group 45–50. This age-related gender gap differs greatly across occupations. Among business executives and lawyers in particular, long

hours are rewarded with a disproportionate increase in pay, and there is a large penalty for the time flexibility that women need around periods of childbirth. The key ingredient in these occupations is that there is low substitutability between one employee and another in a task to be done—a particular person must be available all the time to take responsibility. In Goldin's characterization:

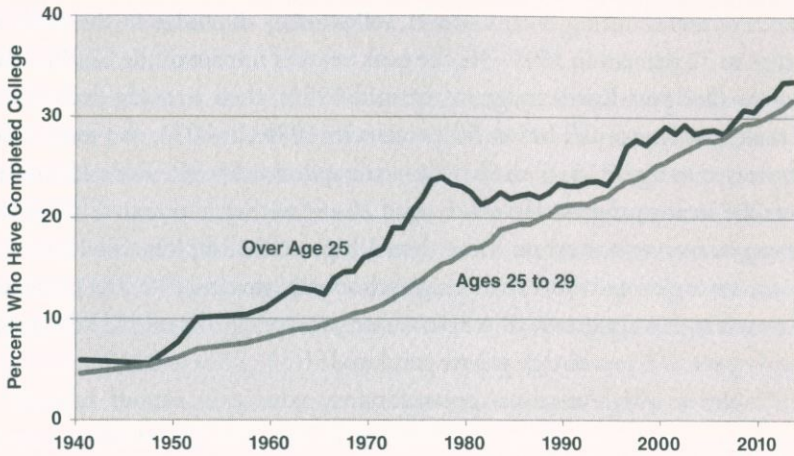
Not all positions can be changed. There will always be 24/7 positions with on-call, all-the-time employees and managers, including many CEOs, trial lawyers, merger-and-acquisition bankers, surgeons, and the US Secretary of State.<sup>26</sup>

At the other extreme are occupations in which one employee can easily substitute for another. For instance, pharmacists have pay that is more linear in working hours and suffer virtually no penalty for part-time employment. Other occupations that offer time flexibility without a penalty or with only a small penalty include physicians, dentists, optometrists, and veterinarians. Long-term trends have shifted pharmacy employment from small proprietor-owned drugstores and single-doctor medical practices to large chain drugstores and medical group practices, and these larger groups make individuals less indispensable and more substitutable with their peers.

### **UNIVERSITY BOUND: THE GROWTH, BENEFITS, AND RISING COSTS OF COLLEGE EDUCATION**

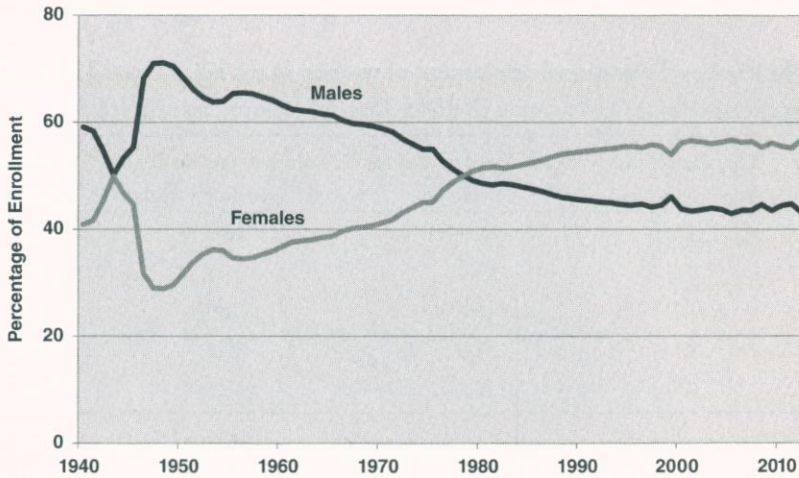
The occupational shift of Americans away from farm and blue-collar manual work to white-collar, managerial, and professional jobs both caused an increased demand for higher education and was made possible by the growing supply of college-educated people. Figure 15–4 shows two different series for college completion, one for people aged 25–29 and the other for all those older than 25; the latter series is higher, reflecting college completion by those age 30 or older, many of them veterans of World War II, the Korean War, or the Vietnam War. The percentage for those aged 25–29 is a better yardstick of college completion for the general population and exhibits an increase from 5 percent in 1940 to 10 percent by 1966 to 20 percent in 1990 and then to 32 percent in 2013.

Along with the overall increase in college attainment has come the rise of the female percentage of total enrollment and the decline in the male percentage. As shown in figure 15–5 the male–female percentage was noticeably skewed by the



**Figure 15-4.** Percent of People Who Have Completed College: Over Age of 25 and Between Ages of 25 to 29, 1940–2012

Source: 1947 and 1952 to 2002 March Current Population Survey, 2003 to 2013 Annual Social and Economic Supplement to the Current Population Survey (noninstitutionalized population, excluding members of the Armed Forces living in barracks); 1950 Census of Population and 1940 Census of Population (resident population).



**Figure 15-5.** Percentage of Enrollment in Institutions of Higher Education by Gender, 1940–2012

Source: HSUS Table Bc523-526 before 1995, SAUS Table 240 after 1995, interpolated 1940, 1942, 1944, 1958, 1960, & 1962.

absence of males during World War II, followed by the bulge in the male percentage to 72 percent in 1949–50, the peak years of impact of the GI Bill. There was a smaller post-Korea bulge in the mid-1950s, then a steady decline until the male percentage fell below 50 percent in 1978. In 2013, the most recent year plotted in figure 15–5, the female–male split was 58–42. Table 15–1 documents the steady progress of women aged 25–64 as they have transitioned from 78 percent having earned no more than a high school diploma in 1970 to 67 percent having earned more than a high school diploma in 2010. The percentage of women in this age group who have a four-year college degree has advanced at a steady pace of 6 percentage points per decade from 1970 to 2010.

Problems with American postsecondary education extend beyond the decline in the male percentage of college graduates. The first of these is the rising real cost of college education and the limited job opportunities available to four-year college graduates since the financial crisis of 2008–9. Student loan debt reached more than \$1 trillion in 2014, an amount greater than either outstanding credit card or automobile loan debt.<sup>27</sup> And student debt must be repaid regardless of whether the graduate obtains a job in an occupation requiring a college degree or not. A nontrivial number of college graduates emerged from college burdened with debt yet able only to find menial jobs driving taxis or working as baristas at Starbucks. Many graduates were forced to move back

**Table 15–1.** Educational attainment of women in the labor force, 1970–2010 (Percent distribution of women in the civilian labor force, aged 25 to 64)

Year	Less than a high school diploma	High school graduates, no college	Some college, no degree, or associate's degree	College graduates
1970	33.5	44.3	10.9	11.2
1980	18.4	45.4	17.4	18.7
1990	11.3	42.4	21.9	24.5
2000	8.5	31.6	29.8	30.1
2010	6.8	26.4	30.3	36.4

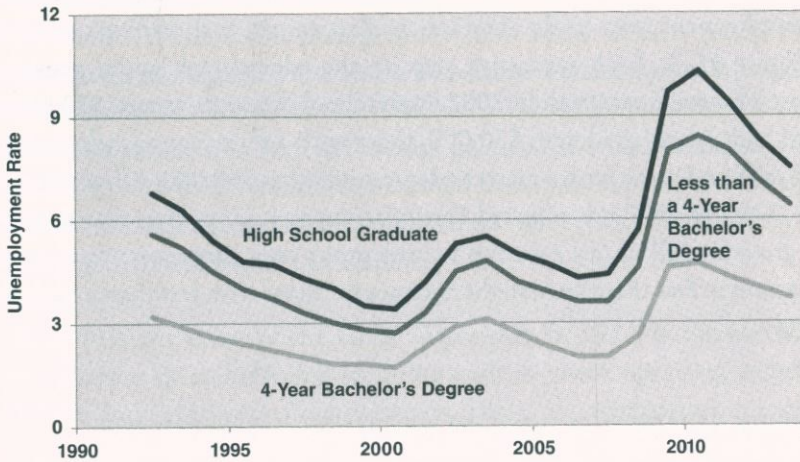
*Note:* Due to rounding, the sum of percent distributions may not equal 100. Data for 1970, 1980, and 1990 are for March of each year and the educational attainment categories are based on the number of years of school completed (i.e. less than 4 years of high school, 4 years of high school and no college, 1 to 3 years of college, and 4 years or more of college). Data for 2000 and 2010 are annual averages and refer to the highest diploma or degree received.

*Source:* "Educational attainment of women in the labor force, 1970–2010," *Bureau of Labor Statistics* (December, 2011).

in with their parents, thus delaying the normal timing of household creation, marriage, and children.

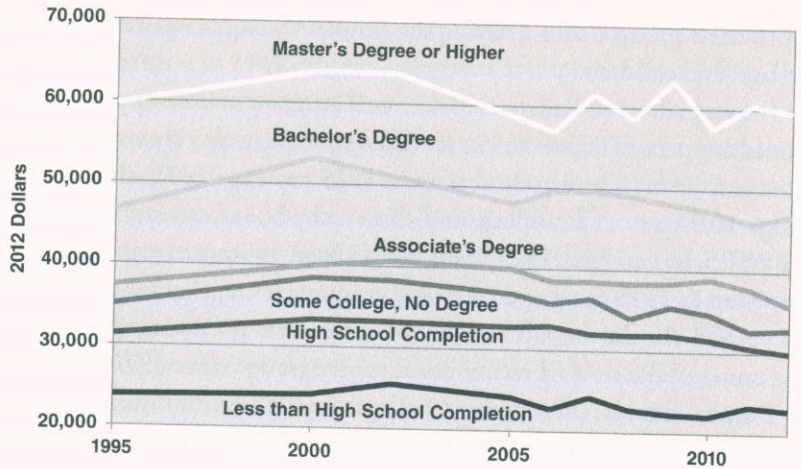
The stagnation of American educational attainment is best measured by the diminishing pace of improvement for those cohorts twenty-five years apart. The real advance came between those born in 1925 (now aged 90), who received on average 10.9 years of schooling, and those baby-boomers born in 1950 (now aged 65), who received 13.2 years. Jump ahead another twenty-five years to those born in 1975 (now aged 40), and attainment crept up only from 13.2 to 13.9 years.<sup>28</sup> The slowing advance of educational attainment is one of the underlying causes of the slowing rate of productivity growth since 1970.

Despite the inability of some college graduates to find jobs requiring a college education, nevertheless college graduates experience a more favorable labor market outcome than their peers who fail to graduate from a four-year college. Figure 15–6 shows that since 1992, the unemployment rate of four-year college graduates has consistently been roughly half that of high school graduates. Those who have attended college but have failed to obtain a four-year college degree have unemployment rates closer to those of high school graduates than to those of four-year college graduates. Although this might make college appear to be a good investment for everyone, the average outcome for all four-year college graduates disguises a high variance across occupations and college



**Figure 15–6.** Unemployment Rates by Educational Attainment, 1992–2013

Source: Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Series IDs LNU040227662, LNU04027689, and LNU04027660.



**Figure 15-7.** Median Annual Earnings: Full-Time Workers Aged 25 to 34 by Educational Attainment, 1995–2012

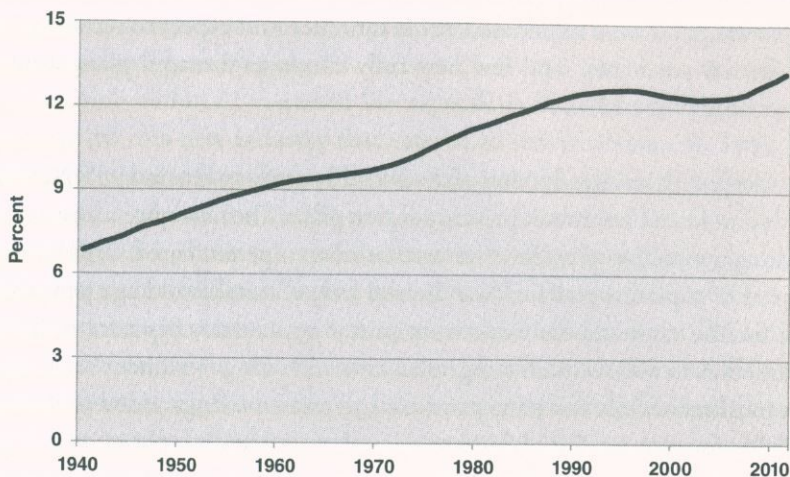
*Source:* 502.30, U.S. Department of Commerce, Census Bureau, Current Population Survey, March 1996 through March 2013, interpolated between 1995, 2000, 2002, and 2005–2012.

majors. An engineering graduate is almost sure to have a low unemployment rate, whereas a graduate in English, art history, or music does not have the same probability of employment in a job requiring a college education.

Just as college students have superior outcomes, at least on average, in unemployment rate, so do they for median annual real earnings, as shown in figure 15-7. Each successive step up the educational ladder provides a boost in average earnings. In 2002, high school dropouts earned \$23,000 per year, high school graduates \$30,000, those with a four-year bachelor's degree \$47,000, and those with a master's degree or higher \$60,000. All salaries plotted in figure 15-7 are adjusted for inflation, so it is striking that there was no growth at all in real earnings for any group over these seventeen years of data, and in fact there were slight declines for those with less than a bachelor's degree.

## PENSION PARADISE: RETIREMENT AND LIFESTYLES IN OLD AGE

The percentage of retirement-age people in the total population, as shown in figure 15-8, displays a steady increase from 7.1 percent in 1940 to 11.3 percent in 1980 and then to 13.1 percent in 2010. The percentage reflects not just



**Figure 15-8.** Percentage of Retirement Age People to Total Population, 1940–2011

Source: Table B-34, Department of Commerce (Bureau of the Census).

increased life expectancy but also the differing number of births in each decade, as well as changes over time in the extent of immigration. The temporary plateau of the percentage between 1995 and 2005 echoes the dearth of births in the Great Depression and World War II years, and the retirement of the baby boomers begins to become visible starting in 2008.

In the 1920s, before passage of the 1935 Social Security Act, private pension programs offered comfortable benefits to a relatively small proportion of the population. Tax reform in 1921 had provided an incentive for many private companies to provide tax-exempt pensions and compensation plans.<sup>29</sup> By 1930, a tenth of the workforce benefited from private pension coverage.<sup>30</sup> But the Great Depression largely eliminated this safety net, leaving elderly workers unemployed and without an income:

With the onset of the Great Depression in 1929, businesses began having great difficulty acquiring cash to meet operating expenses, including rising pension payments. Profits plummeted and, as a result, employers were forced to cut costs drastically, including pension benefits. As a result, more firms began to require employees to contribute toward their plans. Some companies actually abolished their pension plans, while others reduced the amount of benefit payments. In cases

where plans were terminated, some retirees could expect to receive no further payments. And few new fully employer-financed plans were created in the 1930s.<sup>31</sup>

Along with its introduction of the Social Security system in 1935, New Deal legislation forced reforms in private pension plans. The new system ensured that “no longer would workers face destitution when superannuated, and thus stand in need of capitalist welfare. Nor did the lack of suitable old age pensions, at least for the rank-and-file workers, impede a systematic corporate retirement policy.”<sup>32</sup> A new threefold savings plan ensued, with government securing the bare minimum while company pensions and private savings added to the funds available for retirees. Social Security played an influential role in regenerating private pension programs in individual firms. Coverage under private pensions grew from 7 percent of the labor force in 1940 to about 28 percent by 1960.<sup>33</sup>

Social Security was revolutionary in its ability to provide funds on a national scale for the elderly to sustain an adequate lifestyle after retirement from work. Though company defined-benefit pensions and defined-contribution 401(k) retirement investments have played a role over the years, Social Security has been central to the reduction of the poverty rate among the elderly, from 35 percent in 1959 to 10 percent by 2003.<sup>34</sup> Workers who were aged 65 or older in the late 1940s and 1950s had spent their prime years experiencing the Great Depression and World War II and were thus accustomed to dealing with harsh economic realities. After World War II, this generation could look forward to a stable old age financed by Social Security and, in an increasing share of cases, by private pension plans as well. A growing convergence and declining inequality characterized the lifestyles of the retired generation of the 1950s just as the next generation of workers was enjoying steady increases in wages and benefits.

The golden age of pensions occurred in the 1970s. Worries about the insolvency of Social Security and private pension plans lay far in the future. Pension participation in the private sector jumped to 45 percent in 1970, whereas private plans held 7 percent of U.S. financial assets by 1970, a multifold increase as compared to the 2 percent holding in 1950.<sup>35</sup> A breakthrough came when the Employee Retirement Income Security Act, also known as ERISA, was passed by Congress in 1974. This legislation forced companies to provide adequate pension plans and mandated that pension benefits be “vested”—that is, guaranteed, after a minimum number of years of employment. In addition ERISA founded the Pension Benefit Guaranty Corporation, which guaranteed the payment of

basic pension benefits and in 2010 paid benefits to 1.3 million workers from 4,140 terminated pension plans.<sup>36</sup>

The combination of increased life expectancy and the increased income of retirees led to a new industry that catered to senior citizens. In 1960, Del Webb Development launched its first master-planned, age-restricted community for "active adults," the 26,000-unit Sun City, located in Maricopa County, Arizona. By 2013, the number of these age-restricted communities had risen to 771. Many offer facilities ranging from tennis and racquetball courts to golf courses, indoor and outdoor swimming pools, and fitness centers.<sup>37</sup> Comfortable living in retirement-oriented communities and expectations of maintaining pre-retirement standards of living have become commonplace, and for many retirees, the standard of living in these leisure-oriented communities in the Sun Belt exceeded what had been available before retirement in older and more crowded Snow Belt locations.<sup>38</sup>

Retirement since 1950 has been described as "a period of enjoyment and creative experience, and as a reward for a lifetime of labor, increasingly shorter. Mass tourism, low-impact sports such as golf, and mass entertainment such as films, television, and spectator sports provide activities for the elderly at a low price."<sup>39</sup> Typical time schedules in retirement involve more time spent in each individual everyday activity, with the obvious exception of work. For example, the total population watches an average of 2.75 hours of TV per day, whereas retirees watch TV an average of 4.2 hours per day. Retirees also spend more time relaxing, thinking, and reading than average Americans, by a margin of 1.3 to 0.3 hours per day.<sup>40</sup>

There is a stark contrast between those who retired between the 1940s and the 1960s, known as the GI generation, and the modern-day baby boomer generation that is currently entering into retirement. A large portion of the GI generation retirees removed themselves from all types of work after an arduous lifetime of hard labor in factories, mines, and farms. With the white-collar revolution of American jobs and the extension of life expectancy, many baby boomers are choosing to work full-time beyond age 65.

Progressive growth of the elderly population has led to increased concerns over the financial sustainability of retirement. Americans find themselves living longer lives and adjusting to more affluent lifestyles, which translates into a costly extended retirement period. The need for more financial resources has come into conflict with the gradual replacement by firms of defined-benefit pension plans with defined-contribution plans. The latter impose on the retiree

the risks of financial market fluctuations. Though Medicare provides protection against catastrophic illness and hospital costs, most Medicare supplement plans involve high copayments that will increase as a burden on elderly budgets if the relative price of medical care continues to increase.

When it was enacted in 1965 as part of the Great Society social welfare programs, Medicare contributed to the golden age of retirement in the 1970s by supporting the medical costs of the retired population. The problem for Medicare, which showed early signs of weakness in the 1980s and has since been further exposed, is that it relies on public taxpayer funding to foot most (but not all) medical bills. The aging of the population will drive up the costs of Medicare for the foreseeable future. Between 2012 and 2037, it is estimated, the number of Medicare beneficiaries who will enroll in the program will grow by 36 percent or 18 million people, and Medicare spending as a percentage of GDP is projected to increase from 3 percent to 5 percent of GDP.<sup>41</sup>

Each day, 10,000 baby boomers retire and begin receiving Medicare and Social Security benefits. And while five workers supported the benefits of each retiree in 1960, there will be only two workers funding each retiree by 2030. Those who dismiss long-term budget projections should re-read the last paragraph. The retirement of 77 million baby boomers into Social Security and Medicare is not theoretical projection. Demography is destiny.<sup>42</sup>

As fiscal strains are being placed on Social Security, Medicare, and other traditional pension programs, the Great Recession of 2007–9 and the slow subsequent economic recovery have dramatically reduced private savings. As a result of a shift by employers from defined-benefit to defined-contribution 401(k) pension plans, employees now have the latitude to withdraw funds from their own pension plans to tide themselves over periods of low income or unemployment. By September 2008, 60 percent of U.S. workers held about \$3 trillion in 401(k) plan-related assets.<sup>43</sup> The percentage of workers on a defined-benefit pension plan has decreased from 30 percent in 1983 to 15 percent in 2013, and about 33 percent of retirees 65 and older live only on Social Security.<sup>44</sup> As the S&P 500 stock market average collapsed from its peak of 1568 in October 2007 to its trough of 680 in March 2009, many holders of 401(k) assets did exactly the opposite of standard advice for stock market investments—they converted their stock holdings into cash and thus “bought high and sold low.”

By modern retirement standards, as established since the 1970s, "if a household of any income level finds that inadequate resources force upon it a dramatic reduction in its standard of living after retirement, that is evidence of inadequate retirement planning."<sup>45</sup> This expectation is under serious threat based on recent data that 49 percent of middle-class workers will be poor or near poor during retirement.<sup>46</sup> For many workers, having limited funds in savings accounts is forcing them to remain in the labor force after their desired age of retirement.<sup>47</sup> Age discrimination laws that prohibit the refusal to hire the elderly facilitate the process of remaining in the workforce, although many workers who are 50 or older find it difficult to find new jobs in their own occupation if they are unlucky enough to be laid off or if their employer goes out of business.

Age discrimination laws, moreover, are difficult to enforce. In one study of 4,000 résumés sent to firms, otherwise identical resumes identified the age as varying between 35 and 62. The younger workers were 40 percent more likely to be called back for an interview than were workers older than 50.<sup>48</sup> Employer claims that older employees are incapable of performing given tasks run up against the realities of the lessening physical difficulty of work and the improved average physical condition of the elderly.

But don't older people bring lots of problems, too? Literature is full of examples of difficult-to-manage older people, from Shakespeare's King Lear to Charles Dickens' Jeremiah Flintwinch. However, today's oldies are in far better shape than those of earlier generations. If Mick Jagger and Keith Richards can go on touring into their late 60s, their contemporaries can at least be trusted with a desk and a computer. People's muscles do weaken with age. But few jobs require brawn these days: in America 46 percent of jobs make almost no physical demands on workers.<sup>49</sup>

## CONCLUSION

On the job and at home, working conditions have improved significantly but at a slower pace in the seven decades since 1940 than in the seven decades leading up to 1940. Changes between 1940 and 1970 continued the trends of safer, less physically demanding work that began at the turn of the twentieth century. Workers no longer found themselves stuck in the toil of backbreaking work on

the farm, in the mine, or in the factory that often pushed them to their physical limits. Already by 1940, the average workweek had leveled off at around forty hours, down from sixty hours per week in 1900. The period between 1940 and 1970 witnessed the white-collar transition toward stable, upwardly mobile careers. The improvements in workplace safety, in part brought by the shift away from blue-collar jobs, assisted toward this end by lengthening the span of the working life and the long-term earning power of most workers. The period between 1940 and 1970 also witnessed the most rapid improvement in working conditions of housewives at home, for the transition from household drudgery, manual laundry work, and the hauling of fuel and water was largely complete as the major household appliances became nearly universal by 1970.

Though the change in working conditions on the job and at home improved more rapidly during 1940–70 than thereafter, the chronology was different for the marked change in the role of females in the workplace and in society. Only after the mid-1960s did the fertility rate decline from the baby-boom years, allowing women to shift from home to market work as the chosen use of their time. In the early postwar years, college classrooms were dominated by men, but by the late 1970s, females had become half of those completing college, and by 2013, they constituted 58 percent of college graduates. As women increasingly earned college degrees, they began to gain a fair share of advanced professional degrees, particularly in medicine but also in law and business.

The chronology for educational attainment, like that for working conditions on the job and at home, exhibits a more rapid pace of improvement before 1970 than afterward. Child labor disappeared before World War II as the percentage of the population finishing high school exceeded half and finally by 1970 settled down at its apparent long-term value of three-quarters. College educational attainment expanded rapidly in the postwar years, spurred on by the free access to college made possible by the GI Bill. The increasing share of the population with high school diplomas and then college degrees helped pave the way for a transformation from a working-class society before World War II to a middle-class society afterward. The gradual increase in human capital as educational attainment advanced allowed more workers to shift into the more desirable occupations of professional, proprietor, and manager.

The income security of the elderly improved rapidly after the adoption of the Social Security legislation of the 1930s and the spread in the postwar years of defined-benefit pension plans, many negotiated as part of union collective bargaining agreements. Workers responded by retiring as early as age 62 and

turning to a life of leisure, often moving to country club and golfing communities in the Sun Belt. As life expectancy increased, the length of the retirement years stretched to twenty years and beyond, raising concerns about the financial viability of the system. Indeed after the 1980s firms increasingly closed defined-benefit pension plans and replaced them with 401(k) defined-contribution plans that were vulnerable to the naïveté of retired workers about investments and also to early withdrawals by workers suffering from temporary unemployment or loss of a job by a spouse.

Two of the topics treated in this chapter identify potent sources of economic growth that are in the process of becoming weaker. The great transition of women from home to market work, together with the lessening of discrimination against the black population, has created a better allocation of talent and investment in human capital. One research study has estimated that this shift may have accounted for as much as 15 percent or 20 percent of U.S. economic growth during the period 1960–1990 but is clearly becoming less important as the female labor force participation rate has declined since 2000 and as wage gaps between white men and black men have reached a steady plateau since 1990.<sup>50</sup> The other source of slowing growth is the diminishing rate of increase of educational attainment. The percentage of the population completing high school reached a plateau long ago in 1970, and although the percentage obtaining a four-year college degree has continued to increase slowly, a relatively large share of recent college graduates has been unable to obtain a job requiring a college education. The rapidly rising cost of college education and heavy indebtedness of recent college graduates create the possibility that the increase of college degree attainment may soon cease or even begin to reverse.