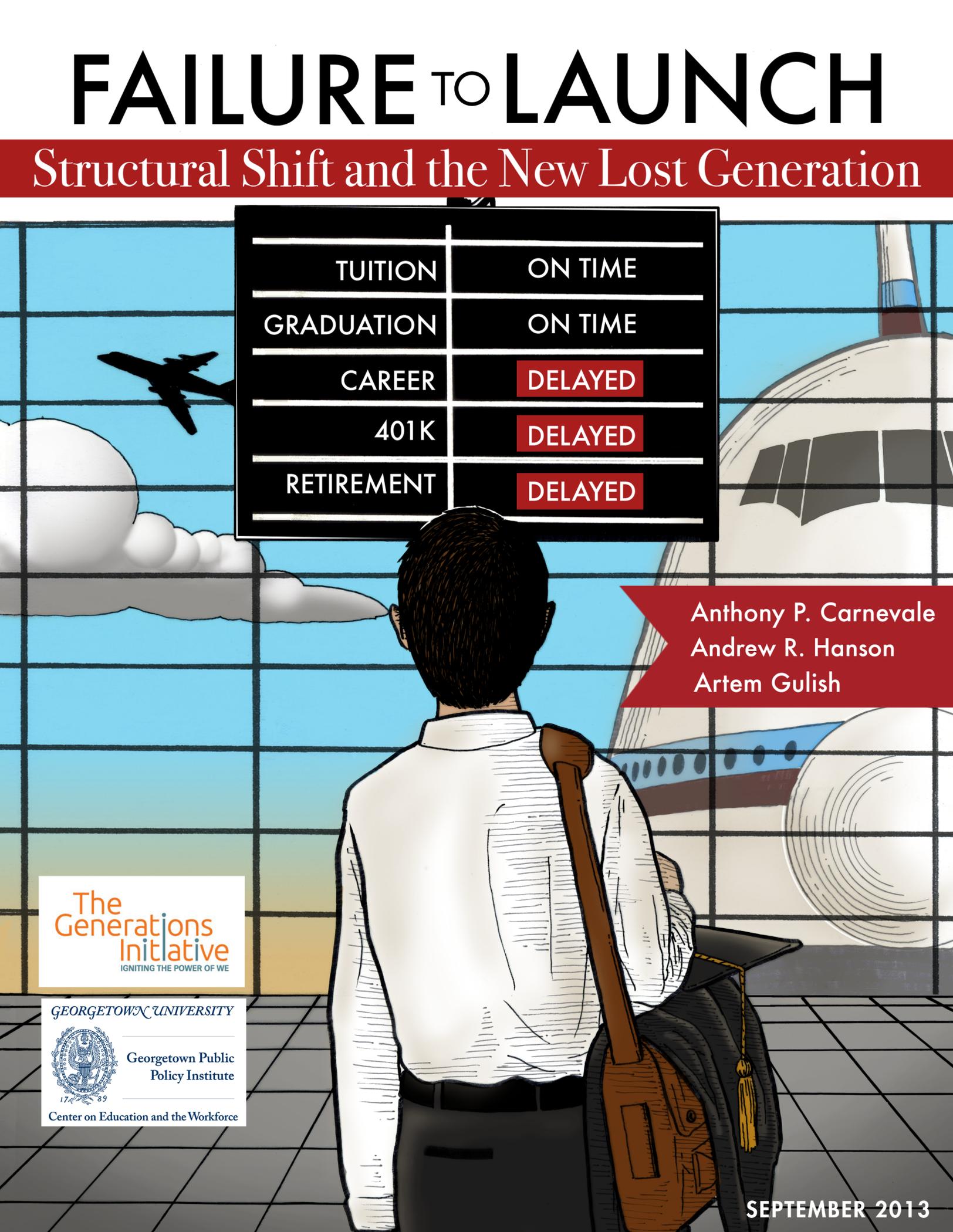


FAILURE TO LAUNCH

Structural Shift and the New Lost Generation



TUITION	ON TIME
GRADUATION	ON TIME
CAREER	DELAYED
401K	DELAYED
RETIREMENT	DELAYED

Anthony P. Carnevale
Andrew R. Hanson
Artem Gulish

The
Generations
Initiative
IGNITING THE POWER OF WE

GEORGETOWN UNIVERSITY



Georgetown Public
Policy Institute

Center on Education and the Workforce

SEPTEMBER 2013

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INTRODUCTION

**Why Young Adults Are
Launching Later and Older
Workers Are Leaving Later**



The lockstep march from school to work and then on to retirement no longer applies for a growing share of Americans. Many young adults are launching their careers later, while older adults are working longer. As a result, the education and labor market institutions that were the foundation of a 20th century system are out of sync with the 21st century knowledge economy.

New economic realities have created additional phases in the lifecycle of work and learning:

- The on-ramp from education to full-time careers and family formation is delayed for many young adults. The age at which young workers reach the median wage has increased from 26 to 30 (Figure 1.4).
- The phases of education, work, and retirement are no longer linear: The system of education for youth and learning on-the-job has been replaced by an expectation of lifelong learning and the continuous upgrading of skills required to adapt to new workplace technologies and an evolving occupational structure.
- The off-ramp from careers to retirement has lengthened beyond age 65, especially for college-educated workers.
- To adapt to these changes, both young and older adults need smoother transitions into and out of the workforce:
 - Young adults will need to mix work and learning at earlier stages to accelerate their launch into full-time careers;
 - Older adults need a less abrupt transition out of careers and into retirement that features a more flexible phase of work before full-fledged retirement.

Since the Great Recession destroyed trillions of dollars of American wealth and left millions of workers unemployed, questions about generational welfare have become increasingly prevalent in the public sphere. Older workers took a big hit to their retirement portfolios and face concerns that they will have to delay retirement or lower their standard of living permanently. Youth employment fell to levels not seen since the early 1970s, before the mass inflows of women into the workforce had peaked. For young men, the employment rate¹ fell to a level not seen since the Great Depression.

As we describe in Part Four, the notion that older adults who delay retirement are crowding young adults out of the labor market is false – there will be more job openings created by retirements for each young person over the next 10 years than there were in the 1990s, when young adults were easily able to find jobs. On the other hand, there is evidence that the public’s increased financing of consumption is crowding out public investments in infrastructure, education, and research and development, which are critical for promoting long-term economic growth. Prior to 1980, the government spent around 2.6 percent of gross domestic product (GDP) on investment, but averaged only 1.8 percent between 1985 and 2009.² Education budgets at the federal, state, and local level have already been squeezed over the past decade.

Some prescriptions, such as cutting education and training programs further, or encouraging older adults to leave the workforce to open up jobs for young adults, would be counterproductive, and exacerbate the costs associated with an aging population. Instead, the United States needs to find ways to enhance the productivity of its human capital development system, first by promoting transparency to ensure that students and their families fully understand the value proposition of education and

second by streamlining curricula to promote college affordability, completion, and the acquisition of competencies with labor market value. The public must also promote access to the labor market by supporting historically disadvantaged groups' connection to work, enhancing flexibility that allows individuals to earn while learning, and eliminating incentive structures that may cause individuals to drop out of the labor force instead of remaining gainfully employed. More broadly, the policies that promote the growth of the labor force and economic growth will ease the growing tension between public spending on investment and consumption.

In this report, we examine trends in employment, labor force participation, annual earnings, and occupations for young and older adults.³ This report includes analyses of these trends by sex, race/ethnicity, and education.

In Part One, we analyze the period between 1980 and 2012 to get a sense of the long-term labor market trends. We find that there has been a long-term structural shift in the age at which young people transition into the workforce as well as a shift in the age that older workers exit it (Figures I and II). Young adults do not reach levels of employment and earnings levels similar to those of young adults in 1980 until later ages, while older workers are employed at higher rates and have consistently higher relative earnings than older workers from a generation ago. The age at which young adults reach the median wage shifted from 26 to 30 between 1980 and 2012. However, the trends differ substantially by race. African Americans have experienced the longest delay – the age at which they reach the median wage has increased to 33, up from 26 in 1980. By comparison, this milestone age increased from 26 to 31 for whites and from 25 to 28 for Hispanics over the same time period.

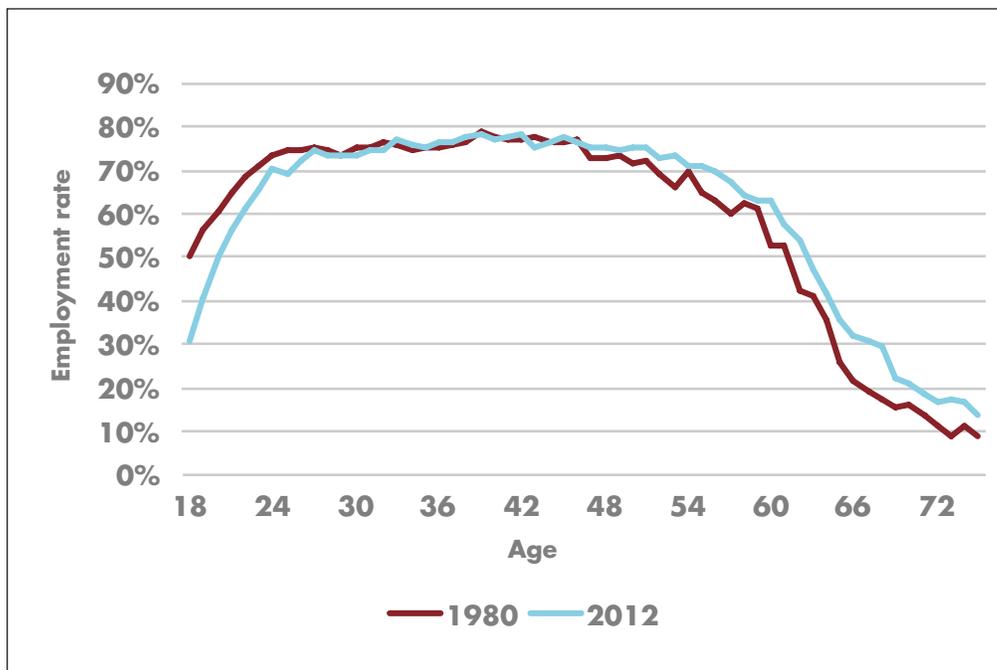
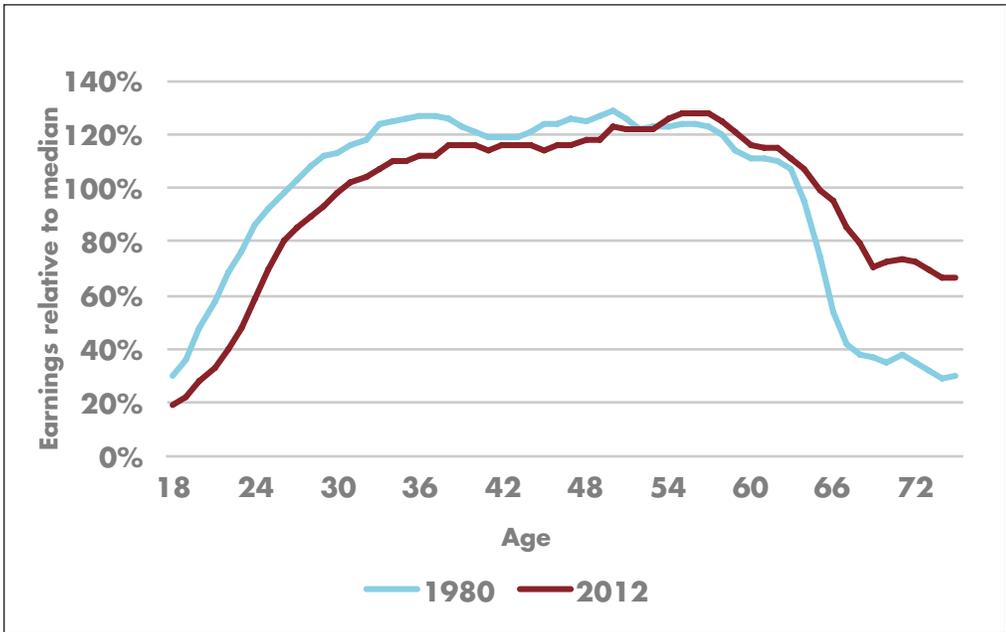


Figure I. The career lifespan has shifted into later ages. Young workers in 2012 take longer to reach employment rates similar to those of young workers in 1980, while older workers in 2012 are working at higher rates than older workers in 1980.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF MARCH CURRENT POPULATION SURVEY, 1980, 2012

Figure II. The age at which young workers reach the median wage was delayed from 26 to 30 between 1980 and 2012, while older workers' relative earnings are much higher in 2012 than 1980.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF MARCH CURRENT POPULATION SURVEY, 1980, 2012

In other words, the model of the labor market that presumed entry at age 18 and exit at age 65 is obsolete, and instead, young people often start their careers later, after developing more human capital from postsecondary education and training, and work experience from internships, work-study, mentorships, fellowships, job shadowing, and part-time work. Young people today change jobs more frequently between the ages of 18 and 25 and only one out of 10 describes his or her current job as a career.⁴ Older workers, especially those with a college degree who work in white-collar professional occupations, are exiting the labor market at later ages.

Our analysis reveals there are differing labor market trends for young men and young women. Although young women still lag young men in earnings and employment, they have made considerable progress over the past several decades due to their robust response to the increasing demand for postsecondary education and training. Young men, on the other hand, have experienced troublesome trends: declining labor force participation, employment, and earnings since the 1980s.⁵ Young men's earnings have fallen relative to average earnings and the earnings of prime-age workers⁶ (30-54), partly because of a decline of unionization and the failure of the minimum wage to keep up with inflation. But the primary causes arise from young men's declining access to middle-wage, blue-collar occupations and their increasing concentration in low-wage jobs in food/personal service occupations. For young women, the long-term trends are more positive: their labor force participation and employment rates and earnings are higher than in the 1980s.

The divergent trends for young men and young women are, in part, due to skill-biased technological change: new technologies that have automated work tasks, placing an increased premium on education and skill in the labor market. Young women – whose postsecondary enrollment and attainment rates have soared since the 1980s, surpassing young men in the early 1990s and widening the gap in the years since – have gained considerable ground in the labor market.

These labor market trends have occurred alongside a series of related sociocultural changes for young adults that have delayed household and family formation, the major milestones that traditionally have defined the transition into full adulthood. Today, young adults are more likely to live with their parents, change residences annually, and cohabit with previous generations. They are, in turn, marrying and rearing children at later ages than ever.

For older Americans, the long-term trends are more encouraging. Older adults' health has improved considerably; life expectancy at age 65 has increased. A larger share of older adults is either working or actively looking for work. The increases are largely due to the increasing participation of women, especially college-educated women, in the workforce. Similarly, older adults have seen considerable increases in their employment rates, earnings, income, and wealth levels over the past three decades, especially those with a college education. In part, older workers' wage growth has resulted from their shift from middle-wage jobs in blue-collar occupations to high-wage jobs in managerial/professional office occupations, healthcare professional/technical occupations, and STEM (science, technology, engineering, and mathematics) occupations.

Older adults' labor force participation also has increased because a larger share of this group is delaying retirement to ages later than their counterparts in the 1980s. There are five potential explanations for these trends.

- First, improved health outcomes and increased life expectancy have increased the ability to work into later ages.
- Second, skill-biased technological change has led to a shift from physical to cognitive work tasks, allowing older adults, who might be incapable of physically demanding jobs, to continue working into later ages.
- Third, defined benefit retirement plans, which frequently discourage working past the age of benefit eligibility, have largely declined.
- Fourth, several reforms to Social Security have increased the incentive for older adults to work, particularly the increase in the full retirement age from 65 to 67 and the elimination in 2000 of the so-called earnings test, which indirectly taxed the earnings of seniors who worked past the full retirement age.
- Fifth, the share of employers offering health insurance as a retirement benefit has declined, encouraging workers to remain employed until age 65, when they're eligible for Medicare benefits.

In Part Two, we focus specifically on trends that have taken place since 2000, and how they've affected the older and younger generations. This period has been marked by two recessions, each followed by a "jobless recovery," during which the economy has returned to pre-recession production and growth levels, but employment has failed to grow in tandem. We demonstrate that, although everyone was affected by poor economic conditions during this period, young adults suffered disproportionately. This is not out of the ordinary – young people typically suffer more than other age groups during recessions. Young adults represent 23 percent of the workforce but 36 percent of the unemployed, while older adults represent 21 percent of the workforce, but only 16 percent of the unemployed.

Young adults suffer more during cyclical downturns for several reasons. They have less firm-specific human capital, less work experience, worse job search skills, and weaker professional networks. Many companies also have “last in, first out” (LIFO) policies that disproportionately affect young adults, who have less job tenure. The Organization for Economic Cooperation and Development (OECD) estimates that for every 1 percentage point change in the adult unemployment rate, the youth unemployment changes by 1.8 percentage points.⁷

But young adults haven’t only experienced high unemployment; their labor force participation, earnings, access to full-time jobs, and wealth all have declined substantially. Young adults’ declining wealth is due to the combined effects of the Great Recession’s destruction of home values, higher student debt levels associated with increasing college costs and tuition payments, and declining rates of home ownership.

Young men have seen especially large declines in labor force participation, employment, and earnings, reflecting the long-term trend. Young women also have lost some ground in the labor market, but have been relatively sheltered by their high rates of postsecondary attainment. Both young men and women have shifted out of middle-skill occupations, but young men have been left to low-skill occupations, while young women have moved into both low- and high-skill occupations.

There are many reasons to think that the economic effects young adults have experienced over the previous decade won’t be short term. Economists have found negative long-term economic, social, and personal consequences for individuals who enter the labor market during bad economic times. These effects result from “cyclical downgrading,” during which young workers settle for jobs and occupations they otherwise wouldn’t, leading to reduced earnings and less job stability up to 10 to 15 years later. Spells of unemployment have large psychosocial effects on the individual as well, and are associated with negative physical and mental health outcomes.

The declines disproportionately have negatively affected young African Americans who saw significant economic progress in the 1990s. The wage gap between young whites and young African Americans has increased substantially since 2000, after two decades of decline. Similarly, young adults without a college degree have been especially vulnerable since 2000.

Older adults have faced a different set of problems in the 21st century. Older adults’ employment, earnings, and household income have grown. Employment and earnings have grown particularly for women and the college-educated. Older adults’ wealth has declined, but not as much as other age groups. However, older adults who are unemployed are especially vulnerable to spells of long-term unemployment, which have increased at a greater rate for older adults than young adults, and produced so-called scarring effects – the risk of skill atrophy, loss of firm-specific human capital, and reduced earnings and job stability – typically associated with workers who lose their jobs at later stages in life.

In Part Three, we highlight the metropolitan areas that offer the highest and lowest employment rates for young adults, as well as the most common occupations that pay them middle-class earnings. The range of youth employment rates among metropolitan areas is 17 percentage points (63% v. 80%), suggesting that young adults stuck in a poor labor market may be able to improve their employment prospects by relocating to a more vibrant metro area.

In Part Four, we examine the validity of several publicly proffered biases associated with the welfare of the older and younger adult generations. We first examine some prominent cultural stereotypes about today's generation of young adults that permeate the media landscape, suggesting young adults lack soft skills, can't accept criticism, or are overly competitive. We then reject the view that older adults who delay retirement are crowding young adults out of the job market. However, we acknowledge the increasing tension between the rising costs of government programs used to finance seniors' consumption and human capital investments, primarily in funding the education system and workforce development initiatives. We find that cutting human capital investments would be counterproductive for both the younger and older generations.

In Part Five, we detail four policy recommendations to address the problems affecting the generations.

- First, the American human capital development system is ripe for reforms that would promote educational attainment and productivity, especially at the postsecondary level.
- Second, active labor market policies and flexible work arrangements would accelerate young adults' progress along the on-ramp into full-time careers and ease the transition of older workers out of the full-time workforce and into retirement.
- Third, removing other potential disincentives to work for older adults, both by employers and governments at the federal, state, and local level, would enhance their economic welfare, promote growth, and ease the slowdown in labor force growth.
- Last, relaxing immigration restrictions, especially for young, high-skill workers, would promote economic growth, expand the tax base, and alleviate the public's burden to make hard choices between human capital investments and programs for seniors.

We conclude the report in Part Six with reasons to be hopeful about the future.



PART 1

Structural Shift



Over the past three decades, young adults have lost ground in the labor market. Overall, the labor force participation rate – the share of people either employed or looking for work – for young adults has been declining for more than two decades and is now at the same rate as in 1972 (Figure 1.1). Declining labor force participation among young people can't be explained by what has happened to women – their rates of labor force participation and employment, as well as their earnings, were mostly increasing until 2000. Since then, both young men and women have experienced significant declines in labor force participation, employment, and annual earnings, as detailed in Part Two. But the long-term story is largely about young men's delayed entry to careers.

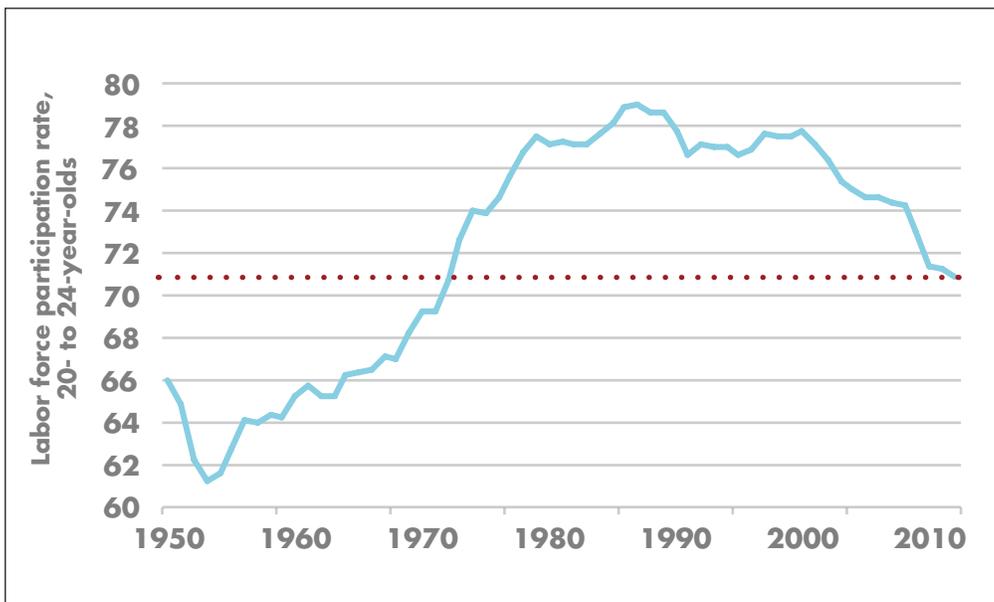
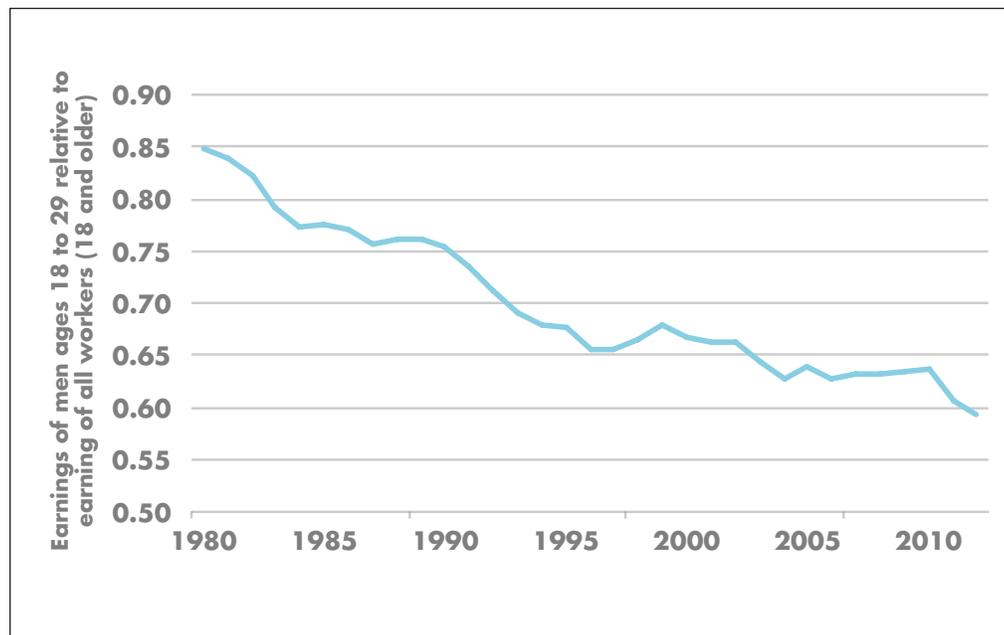


Figure 1.1. The labor force participation rate for young people has declined since the 1990s, and reached its lowest point since 1972 in 2012.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE FEDERAL RESERVE BANK OF ST. LOUIS, 1947-2012

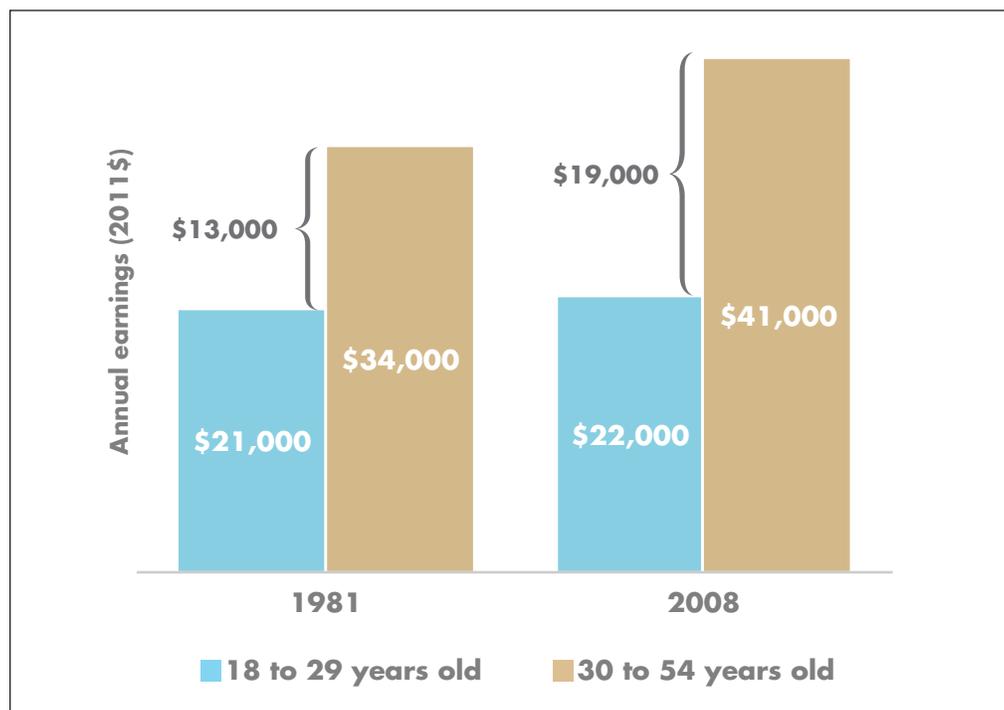
Over the past 30 years, young men's earnings have declined relative to average wage growth (Figures 1.2 and 1.3). In 1980, young men earned 85 cents for each dollar of the average wage; by 2011, they earned only 58 cents on the dollar. In 1981, the wage gap between young and prime-age workers was \$13,000; by 2008, the gap increased 46 percent to \$19,000.

Figure 1.2. Since 1980, young men's earnings have declined relative to average earnings.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1980-2011, CPS UTILITIES, UNICON RESEARCH CORP.

Figure 1.3. The gap between younger workers' annual earnings and prime-age workers' annual earnings increased from \$13,000 to \$19,000 between 1981 and 2008.⁸



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1981, 2008, CPS UTILITIES, UNICON RESEARCH CORP.

Young adults, especially young men, are taking longer to launch their careers.

Alongside these trends, young people are taking longer to launch their careers. They change jobs more frequently between the ages of 18 and 25 than baby boomers did at the same ages. The average worker in the millennial generation changes jobs 6.3 times between the ages of 18 and 25, compared to 5.5 times for the average baby boomer when he or she was between 18 and 25.⁹ One out of four 18- to 34-year-olds takes an unpaid job merely to gain work experience and only one out of 10 18- to 24-year-olds considers his or her current job a career.¹⁰ The age at which young adults reach the middle of the wage spectrum has been delayed from age 26 to 30 (Figure 1.4). These trends have led economist Lawrence Katz to characterize today's youth as a "lost generation."¹¹

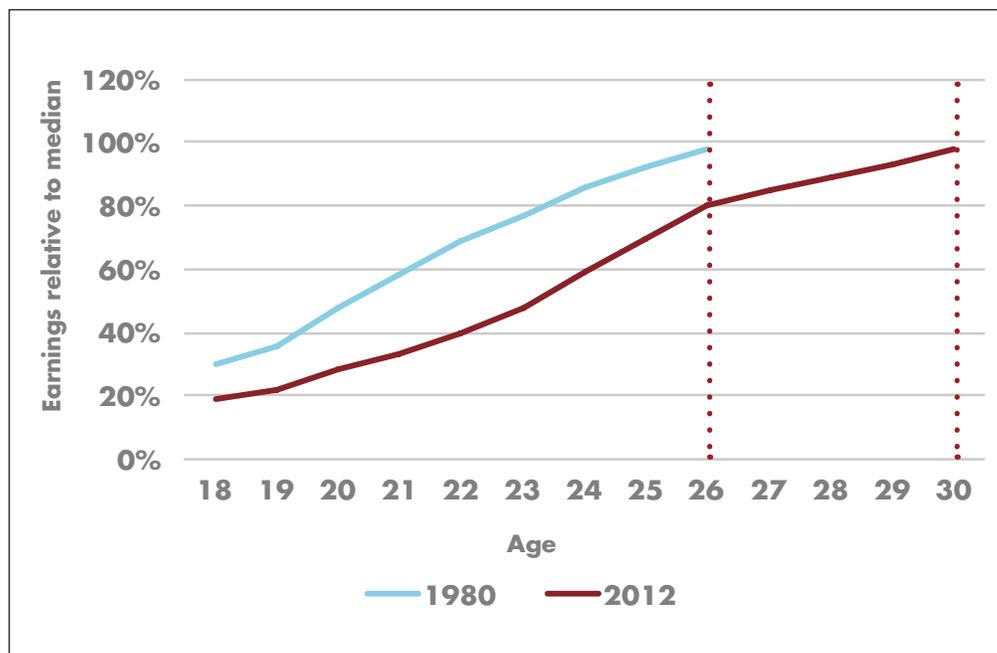


Figure 1.4. Between 1980 and 2012, the age at which young adults reach the median wage shifted from 26 to 30.

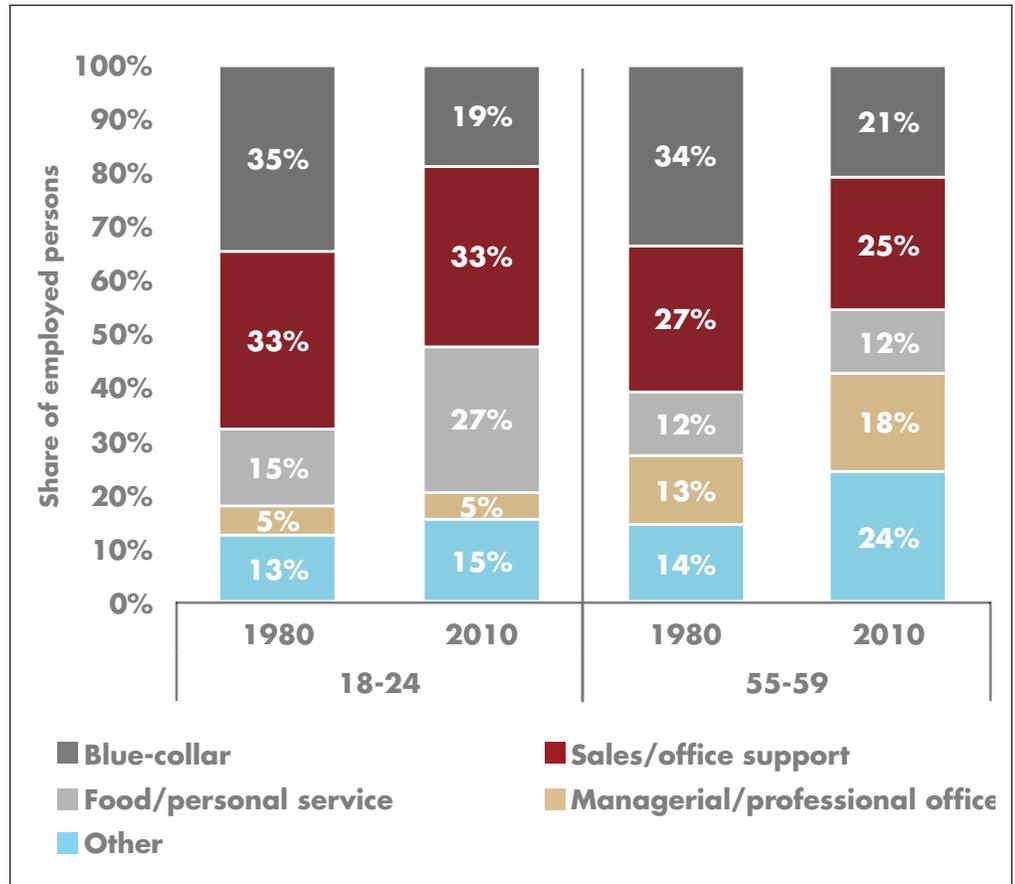
SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF MARCH CURRENT POPULATION SURVEY, 1980, 2012

Occupations

Young workers have shifted out of middle-wage, blue-collar occupations and into low-wage, food/personal service occupations (Figure 1.5). In 1980, 35 percent of young workers were employed in blue-collar occupations; by 2010, that share declined to 19 percent. Over the same period, the share of young workers employed in food/personal service occupations increased from 15 percent to 27 percent.

Similar to young workers, older workers (ages 55 to 59) have shifted out of blue-collar occupations, but they have moved into high-paying managerial/professional office, healthcare professional/technical, and STEM occupations. Between 1980 and 2010, the share of older workers in blue-collar occupations declined from 34 percent to 21 percent, while the share working in managerial/professional office occupations increased from 13 percent to 18 percent. Over the same period, the share of older workers in STEM; healthcare professional/technical; community services; education; healthcare support; and arts occupations increased from 14 percent to 24 percent.

Figure 1.5. Since 1980, older workers have shifted out of blue-collar occupations and many have moved into managerial/professional office occupations.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

NOTE: THE "OTHER" CATEGORY INCLUDES STEM, HEALTHCARE PROFESSIONAL/TECHNICAL, COMMUNITY SERVICES, EDUCATION, HEALTHCARE SUPPORT, AND ARTS OCCUPATIONS.

Young men’s delayed entrance to full-time careers and declining access to middle-wage, blue-collar occupations are a result of skill-biased technological change.

While these trends are, in part, a result of declining unionization and the failure of the minimum wage to keep up with inflation,¹² the most significant factor is skill-biased technological change, e.g., the increased premium on skill resulting from technological innovations, such as automation in information technology and the advent of the personal computer.¹³ Entry-level job requirements have gone up over the past 40 years, as the economy has shifted from a goods-based manufacturing economy to an information-based services economy.¹⁴ In 1973, 28 percent of job openings required at least some postsecondary education and training. By 2010, that share increased to 59 percent, and by 2020, it is projected to rise to 65 percent (Figure 1.6).¹⁵ More young people are attending college, but not enough are graduating to keep up with the growing demand for skill, as evidenced by the growing wage premium for college-educated workers. In 1983, workers with a BA¹⁶ or better made 40 percent more than those with a high school diploma; by 2010, that premium had increased to 74 percent.¹⁷

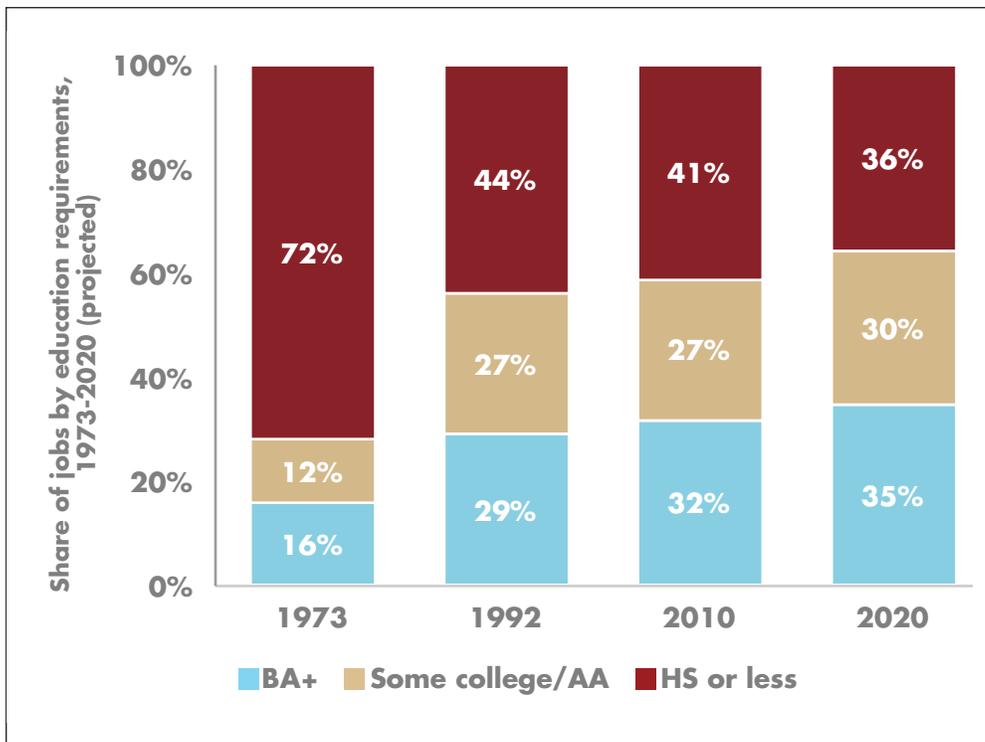


Figure 1.6. By 2020, 65 percent of jobs will require at least some education or training beyond high school.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON THE WORKFORCE ANALYSIS IN *RECOVERY: PROJECTIONS OF JOB OPENINGS AND EDUCATION REQUIREMENTS THROUGH 2020*, 2013

NOTE: DUE TO ROUNDING, COLUMNS MAY NOT SUM TO 100 PERCENT.

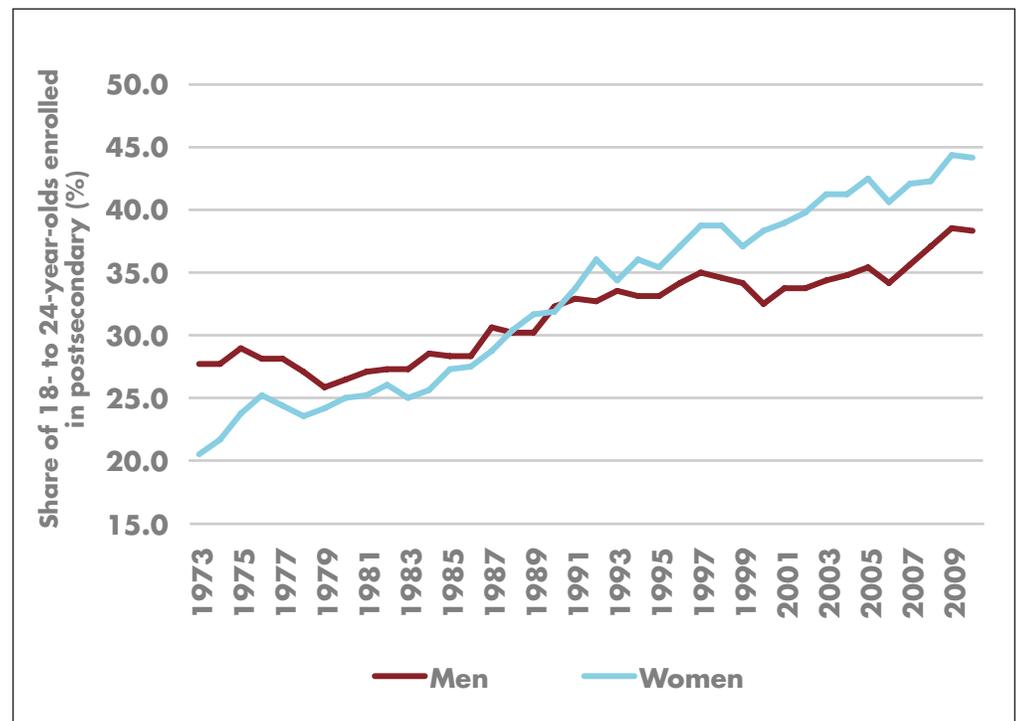
Relative to young men, young women have seen substantial growth in labor force attachment over the past three decades, coinciding with their enormous growth in postsecondary enrollment and educational attainment.

Why have young men's labor-market prospects declined but young women's have not? First, young men started from a relatively stronger position in the 1970s. They had access to blue-collar occupations out of high school that largely paid middle-class earnings and, in many cases, offered upward career mobility. The availability of middle-wage, blue-collar jobs straight out of high school may have discouraged young men from pursuing postsecondary education. Since the early 1980s, both young and older adults have moved out of blue-collar occupations, but young adults have moved into low-wage food/personal service occupations, while older adults have moved into high-wage managerial/professional office, as well as STEM and healthcare professional/technical occupations (included as "Other" in Figure 1.5). On the other hand, many young women were not in the workforce during the 1960s and '70s and those who were had mostly limited occupational choices. Women usually worked as schoolteachers, nurses, or office workers, such as secretaries, receptionists, and assistants. This began to change in the 1970s and '80s as women moved into occupations that were traditionally held by men.¹⁸

Young women have outpaced young men in postsecondary enrollment and educational attainment.

Young women's postsecondary enrollment and attainment have been growing faster than young men's since the early 1980s and, in the early '90s, young women surpassed young men in postsecondary enrollment (Figure 1.7) and attainment (Figures 1.8 and 1.9). As this long-term structural economic shift took place, some postsecondary education and training became necessary to secure access to high-paying occupations, particularly in the managerial/professional office, STEM, and healthcare professional/technical fields.

Figure 1.7. Young women began to enroll in postsecondary institutions at higher rates than young men in the early 1990s; in the years since, the gender enrollment gap has grown wider.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE NATIONAL CENTER ON EDUCATION STATISTICS, 1973-2009

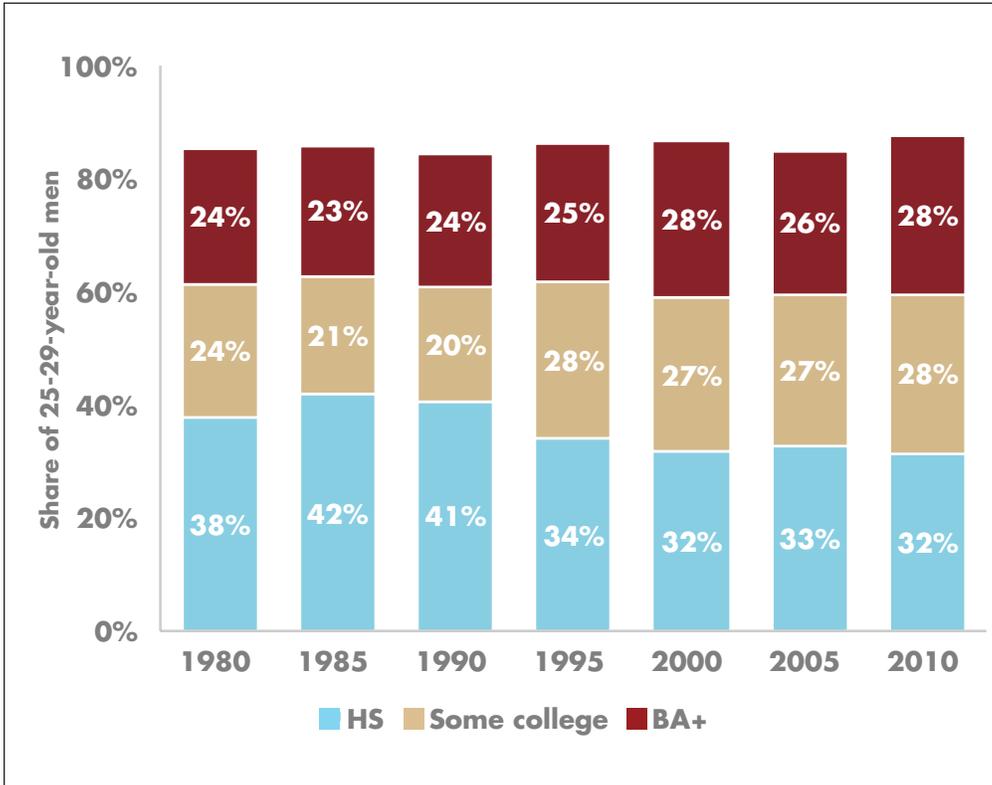


Figure 1.8. Men have made less progress in educational attainment relative to women over the past three decades: The share of young men with a BA or better increased by 4 percentage points between 1980 and 2010 (from 24% to 28%).

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE NATIONAL CENTER ON EDUCATION STATISTICS, SELECTED YEARS, 1980-2010

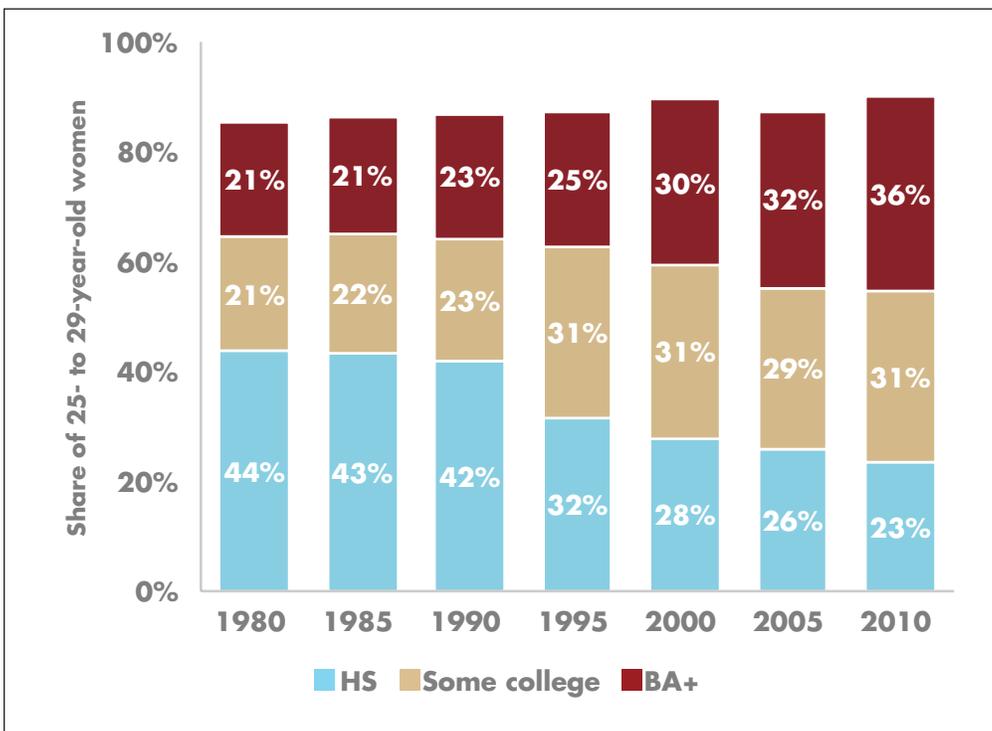


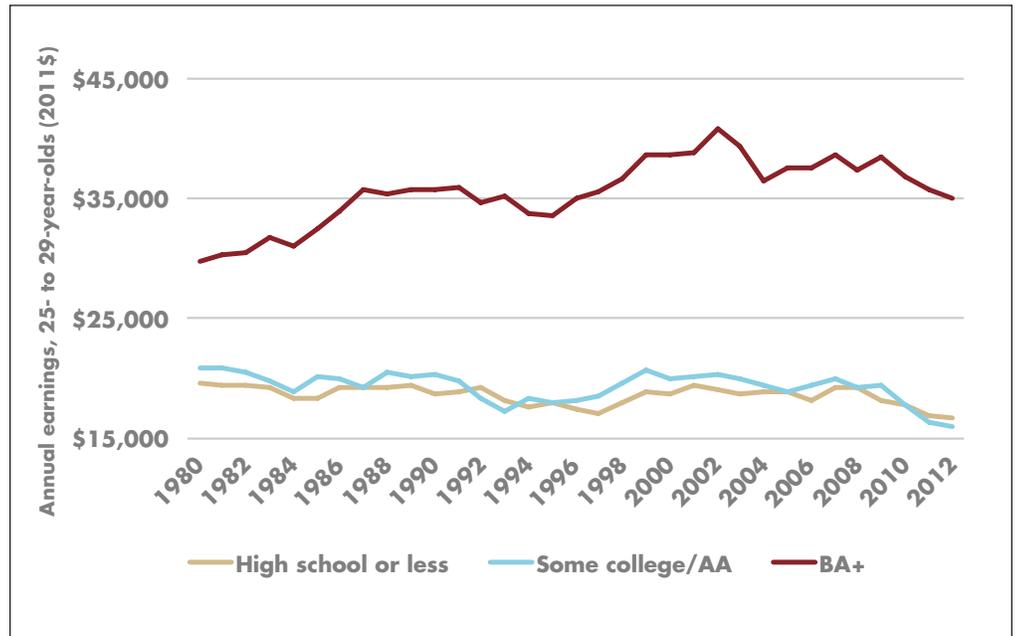
Figure 1.9. The share of young women with a BA or better increased from 21 percent in 1980 to 36 percent in 2010.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE NATIONAL CENTER ON EDUCATION STATISTICS, SELECTED YEARS, 1980-2010

Young workers with less than a BA have experienced stagnant earnings over the past three decades, while young Bachelor's degree-holders' earnings have grown substantially.

Although they have declined in the last decade, earnings for young workers with a BA or better grew by 38 percent between 1980 and 2000, but stagnated for young workers with less education (Figure 1.10). Between 2000 and 2011, earnings fell for young workers across education levels, but the declines were larger for young workers with less education: 20 percent for workers with a high school diploma or less; 10 percent for workers with some college credit or an Associate's degree; and 9 percent for Bachelor's degree-holders. Together, these trends underscore why young women's labor market prospects improved through the end of the 20th century, although young men still have maintained higher labor force participation, higher employment rates, and higher earnings in absolute terms. Young women have been more responsive – relative to men – to labor market signals about the increasing value of college education.

Figure 1.10. Young college graduates' earnings grew substantially between 1980 and 2000, but stagnated for those with less education.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1980-2012, CPS UTILITIES, UNICON RESEARCH CORP.

Structural shift and the negative cyclical effects of the first decade of the 21st century have combined with pernicious social effects to create a mountain of challenges for young adults.

Economic hardships have contributed to the delay in the transition from adolescence to full adulthood. A recent report from the Pew Research Center, for example, found that 57 percent of 18- to 24-year-olds lived with their parents in 2012.¹⁹ One-third of young adults move back in with their parents in their late 20s and one-third change residences on a yearly basis.²⁰ The burden of rising student loan debt delays young adults' ability to achieve financial independence. Among households headed by adults younger than 35, for example, net worth declined by 68 percent between 1984 and 2009, from \$11,500 to \$3,700.²¹

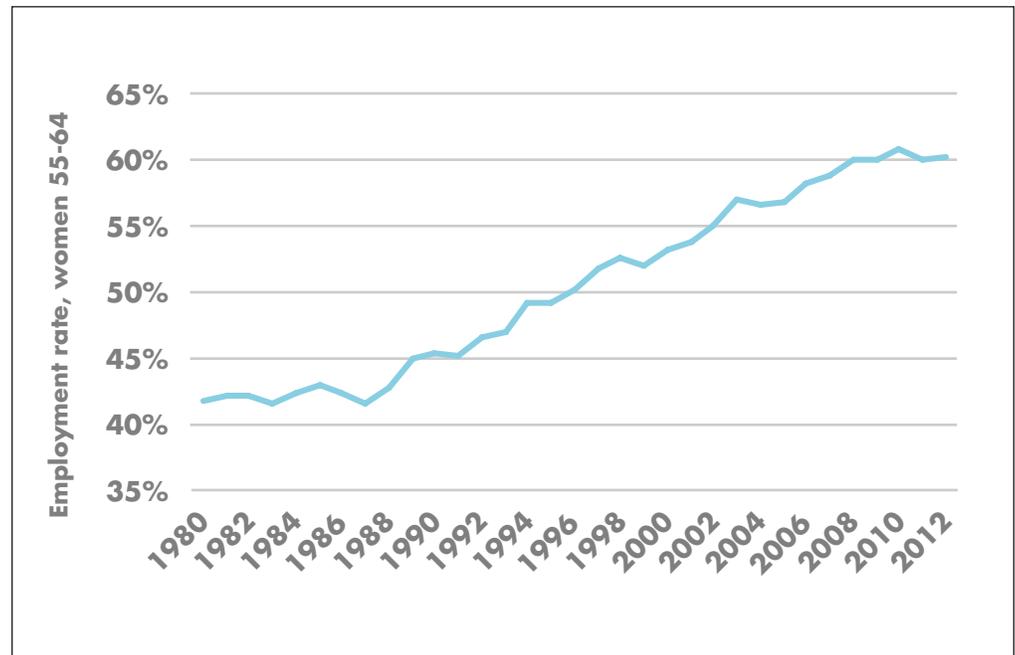
Evolving social norms entangled with economic hardships have led young people to delay household and family formation. Two-thirds of young adults in their 20s cohabitate;²² the average age of marriage increased from 21 to 26 for women and 23 to 28 for men between 1970 and 2006.²³ Over the same period, the average age of a mother at the birth of her first child increased from 21 to 25.²⁴ In 1960, three out of four women and two out of three men completed school, left home, achieved financial independence, were married and had children by age 30. In 2000, less than half of women and only one-third of men reached the same milestones by age 30.²⁵

Older adults, especially women and the college-educated, are working more and into later stages of life.

Contrary to young adults, the long-term trends older adults have experienced have been largely positive. Older adults are healthier and living longer than ever. Life expectancy at age 65, for example, has been increasing for decades. Life expectancy for men at age 65 increased from 13 years to 19 years between 1940 and 2010.²⁶ Over the same period, life expectancy at 65 increased from 15 years to 21 years for women.

Older adults, especially women and college graduates, are increasingly likely to work into later stages of their life. Women 55 and older have experienced the highest employment growth since the 1980s: The employment rate for women between 55 and 64 increased from 42 percent to 61 percent between 1987 and 2010 (Figure 1.11) and increased for women 65 to 69 from 17 percent to 26 percent between 1995 and 2011. The employment rate of older women (ages 55 to 64) increased because the employment rates of younger women increased steadily for most of the second half of the 20th century. In other words, the cohorts of women nearing retirement age over the past 20 years have been more active in the labor force throughout their working lives, compared to previous generations.

Figure 1.11. The employment rate of older women grew from 42 percent in 1987 to 62 percent in 2010.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1987-2012, CPS UTILITIES, UNICON RESEARCH CORP.

Older adults' employment rate, earnings, household income, and wealth have grown over the past three decades.²⁷ Two major factors have contributed to these trends. First, women are increasingly likely to work, leading to more households with two incomes, which allows for a higher standard of living and wealth accumulation. Second, like young men, older men have shifted out of blue-collar occupations that paid middle-class earnings, but unlike young men, they have moved into managerial/professional office; healthcare professional/technical, and STEM occupations that offer high earnings. One-third of older men remain in blue-collar occupations, down from 45 percent in 1980, compared to 7 percent of women, down from 16 percent in 1980.

Similarly, older workers' annual earnings relative to prime-age workers (ages 30 to 54) have grown since the 1980s (Figure 1.12). The earnings of workers 55 to 64 surpassed prime-age workers' earnings in recent years. In 1980, workers 65 and older earned roughly 20 cents for each dollar earned by prime-age workers; today, that number has tripled to 60 cents for each dollar. This is partly due to divergent retirement patterns of older workers by education.

Highly educated older workers, who also have above average earnings, are more likely to remain in the labor force at later ages.²⁸ College-educated senior citizens are nearly twice as likely to be employed as their high school-educated peers (Figure 1.13). Over the past several decades, the relative wages of older workers have increased, as the premiums on skill and experience have gone up. Older workers' relative earnings have also increased because the educational achievement gap between older and prime-age workers also has declined over time. This occurred as a result of the enormous growth in educational attainment that occurred after World War II and the establishment of the G.I. Bill, and the slowdown in the growth of postsecondary attainment in the decades after.²⁹

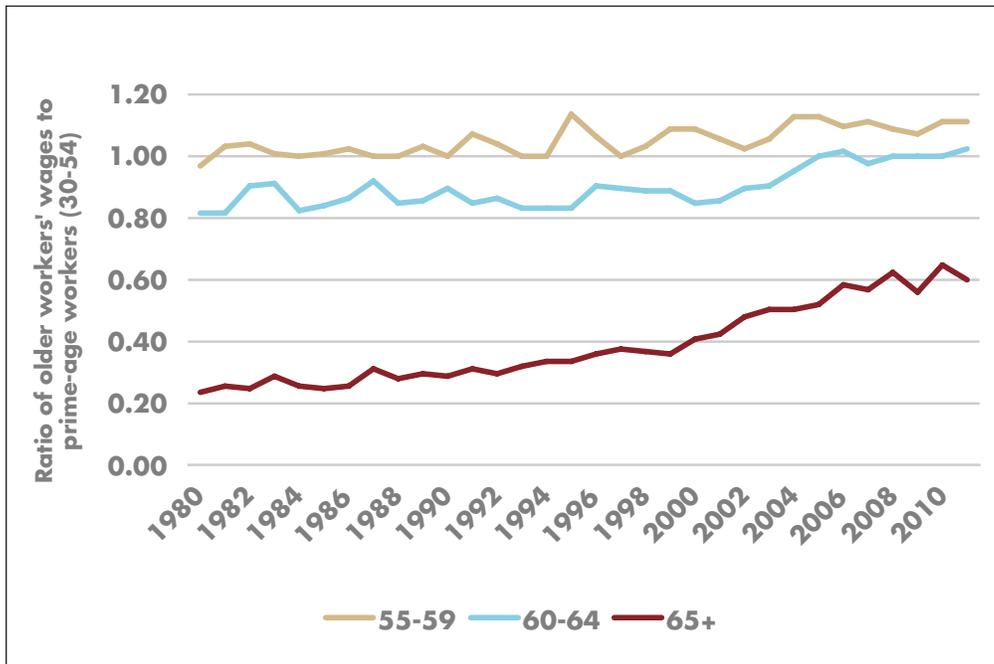


Figure 1.12. The earnings of older workers (ages 55 and older) relative to prime-age workers have increased since the 1980s.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1980-2012, CPS UTILITIES, UNICON RESEARCH CORP.

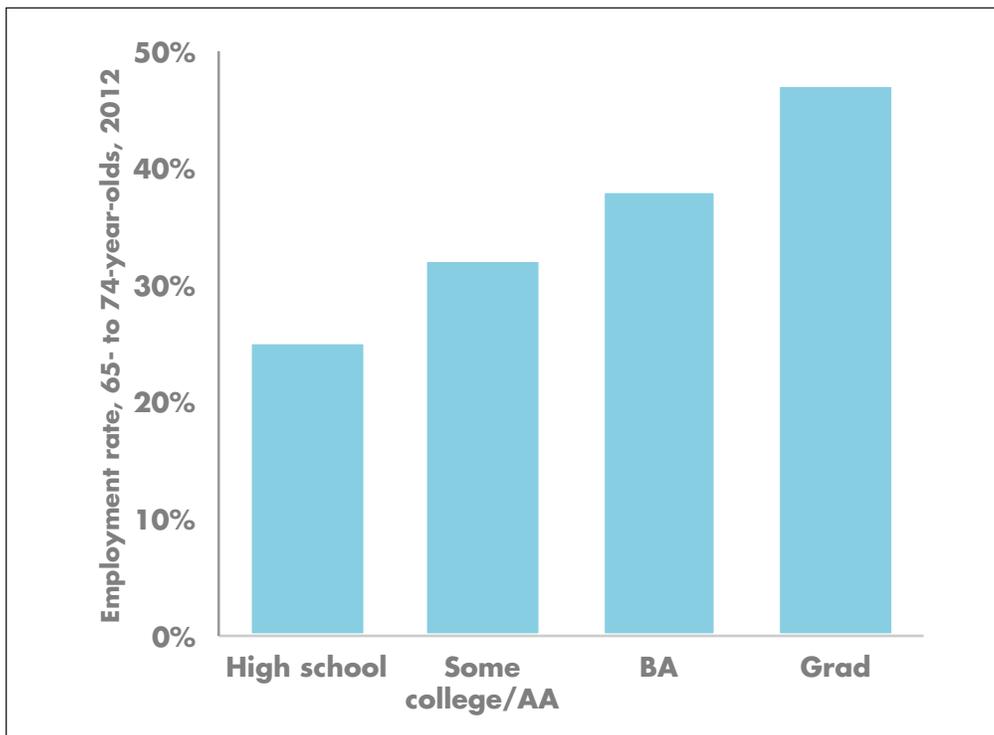


Figure 1.13. Roughly half of seniors (ages 65 to 74) with a graduate degree are employed, compared to one out of four high school-educated seniors.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1980-2012, CPS UTILITIES, UNICON RESEARCH CORP.

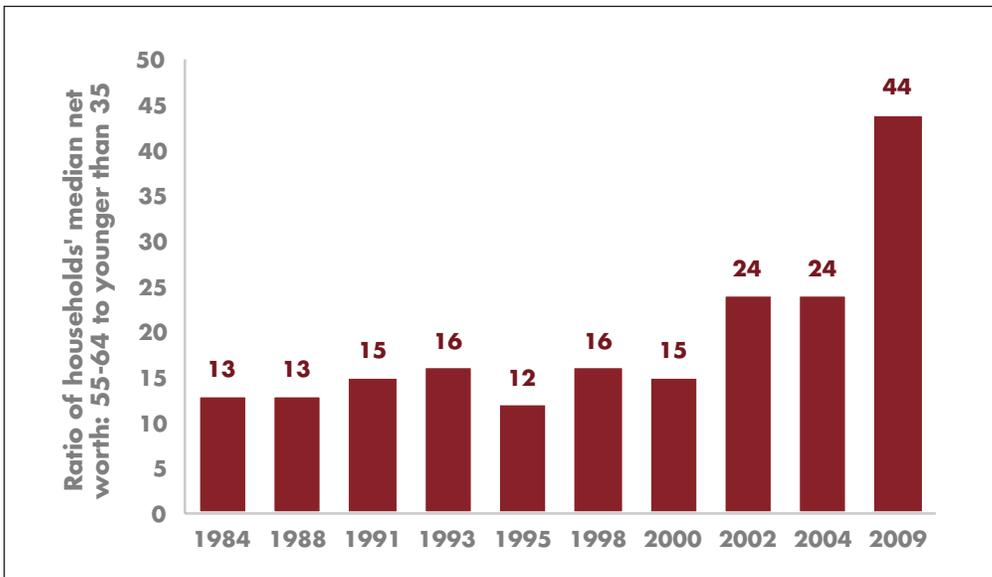
Many trends in labor markets and public policies have led older workers to delay retirement into later ages.

Structural shift has also led many older workers to delay retirement into later ages. First, increases in life expectancy and health have allowed older adults to work into later ages; most retirees are physically capable of working.³⁰ Second, older workers today are more educated than in previous decades. More-educated workers are more likely to work because they receive higher earnings, have greater job satisfaction, and have less physically strenuous work tasks that often prevent many less-educated workers from working into later stages of life. More-educated workers are also healthier and have longer life expectancies, which contribute to their ability to work into later ages. Third, employers have shifted away from defined benefit retirement plans to defined contribution plans, such as 401(k) and 403(b) plans. This shift has encouraged many workers to continue working beyond the normal retirement age because they are no longer subject to defined benefit pensions, which frequently are structured to discourage work beyond the age of eligibility for retirement benefits.³¹ Defined-contribution plans, by contrast, have no such disincentive. Fourth, Social Security reforms combined with increasing participation of women in the workforce have increased older adults' incentive to work. Maestas and Zissimopoulos (2009) highlight three specific reforms that have encouraged work:

- A gradual increase in the full retirement age from 65 to 67;
- Elimination of a disincentive for those who claimed benefits after the full retirement age;
- Elimination of the “earnings test,” which capped the amount of wages that could be earned by working beneficiaries.

Similarly, due to the long-term increase in the number of years women work in their prime-age, they now have the opportunity to increase their Social Security benefits substantially by continuing to work instead of claiming their husbands' benefits (of which spouses can claim 50 percent). Finally, similar to the decline in defined benefit pensions, employers have also discontinued providing health insurance as a retirement benefit, which has encouraged older adults to continue working until age 65, when they are eligible for Medicare benefits.³²

These trends, along with government benefits that are largely skewed toward the elderly, have led to an increase in generational inequality in household income and wealth. For Americans 65 years and older, net worth increased by 41 percent, from \$121,000 to \$171,000³³ between 1984 and 2009. In 1984, households headed by individuals between the ages of 55 and 64 had 13 times as much wealth as those headed by individuals 35 and younger; by 2009, that multiple had grown to 44 (Figure 1.14).



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE PEW RESEARCH CENTER, 1984-2009

The welfare gains among seniors have not been broad-based. For example, while life expectancy over the past 30 years increased by six years for men in the top half of the income distribution, it only increased by one year over the same period for those in the bottom half of the income distribution.

³⁴ And a large share of the long-term growth in employment among seniors has been concentrated among college-educated white women (Figure 1.15).



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, 1980-2012

Between 1980 and 2007, the employment rate of white women older than 54 with a BA or better increased from 32 percent to 49 percent before falling two points in the recession. By comparison, the employment rate of nonwhite women without a college degree older than 54 also grew, but substantially less: six percentage points, from 23 percent to 29 percent, between 1980 and 2012.

Figure 1.14. In 1984, older adults had 13 times as much wealth of young adults. By 2009, they had 44 times as much wealth.

Figure 1.15. Among older women, the employment rate for white, college-educated women grew by 15 percentage points (from 32% to 47%), compared to a 6 percentage point growth (from 23% to 29%) for nonwhite women with less than a BA.



PART 2

The Lost Decade



In the 1980s and '90s, the future looked promising for the generation that would come to be known as millennials: unemployment was low; workers' earnings were growing; and young adults, especially women, were more educated than ever. But the bursting of the dot-com bubble, which culminated in the 2001-02 recession, left young adults in a deep hole economically. In 2006 and 2007, just as employment and earnings levels were returning to the highs of the late '90s, the housing bubble burst, and the ensuing financial crisis and Great Recession of 2007-09 led to youth (ages 20 to 24) labor force participation soaring to levels not seen since the Bureau of Labor Statistics began collecting data (Figure 2.1).³⁵ Together, these economic shocks amounted to a lost decade just when millennials began entering the workforce.

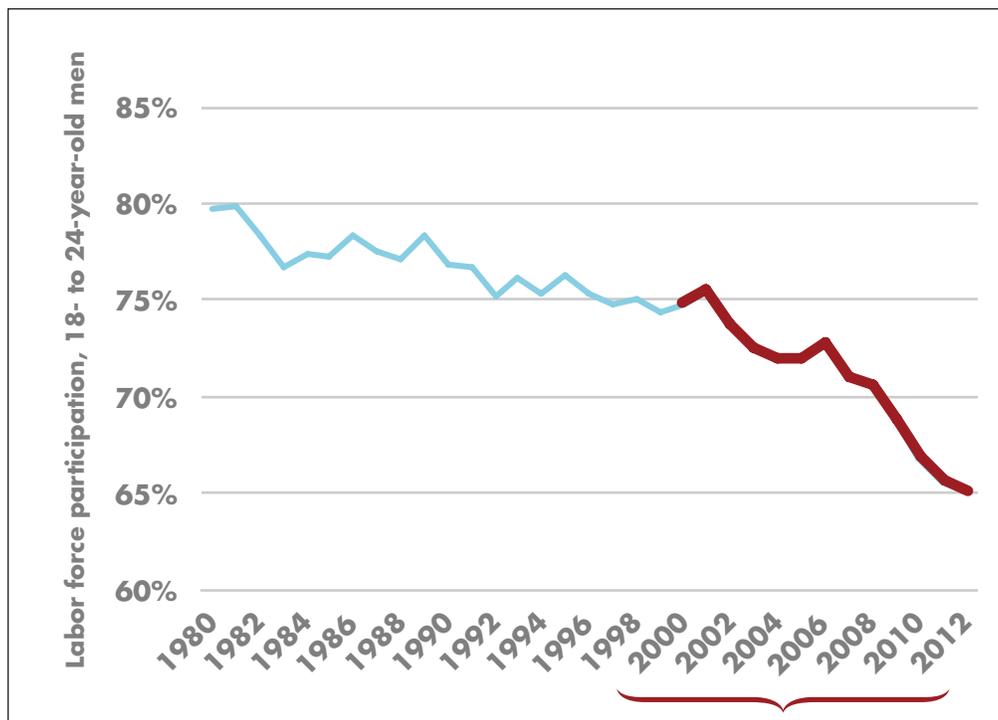


Figure 2.1. Labor force participation for young men declined nearly three times as much in the “lost decade” as during the previous two decades.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1980-2012, CPS UTILITIES, UNICON RESEARCH CORP.

It is clear from the evidence that today's generation of youth bore the brunt of the economic shocks during the first decade of the 21st century. Everyone suffered, but young people tend to be more vulnerable to the cyclical economic fluctuations than other age groups. There are several reasons for this. First, young people tend to have less firm-specific human capital, and as such they require an upfront investment in training and professional development. In addition, many firms have instituted last-in, first-out policies that require them to lay off workers with the least job tenure, who are more likely to be young. Second, young adults tend to have less developed professional networks and little work experience they can leverage to secure employment. The Organization for Economic Cooperation and Development (OECD) confirmed that young adults' employment prospects are more sensitive to business cycle fluctuations, finding that for every 1 percentage point change in the adult unemployment rate, the youth unemployment changes by 1.8 percentage points.³⁶

Indeed, the share of people in their late 20s working dropped from 88 percent to 80 percent and fell from 84 percent to 72 percent for those in their early 20s (Figure 2.2). This represents the lowest rate in the 60 years since the federal government first began collecting data. While young adults represent 23 percent of the labor force, they represent 36 percent of the unemployed (Figure 2.3). By comparison, older adults represent 21 percent of the labor force, but only 16 percent of the unemployed.

Figure 2.2. The employment rate for young adults (ages 21 to 25) declined from 84 percent to 72 percent between 2000 and 2011.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2000-2012, CPS UTILITIES, UNICON RESEARCH CORP.

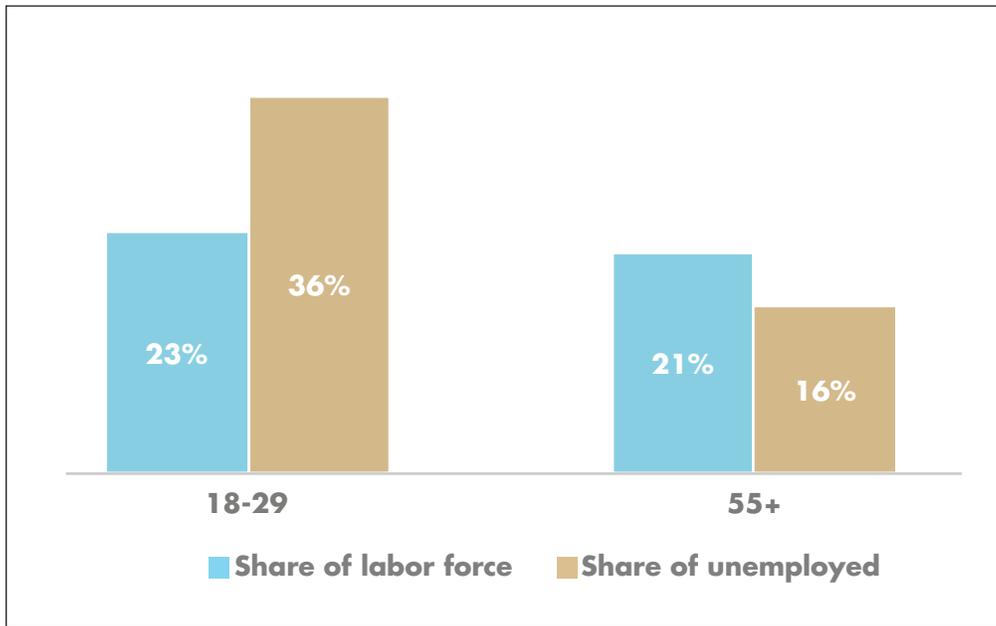


Figure 2.3. In 2012, young people (ages 18 to 29) represented 23 percent of the workforce, but 36 percent of the unemployed, while older Americans (ages 55 and older) represented 21 percent of the workforce, but only 16 percent of the unemployed.

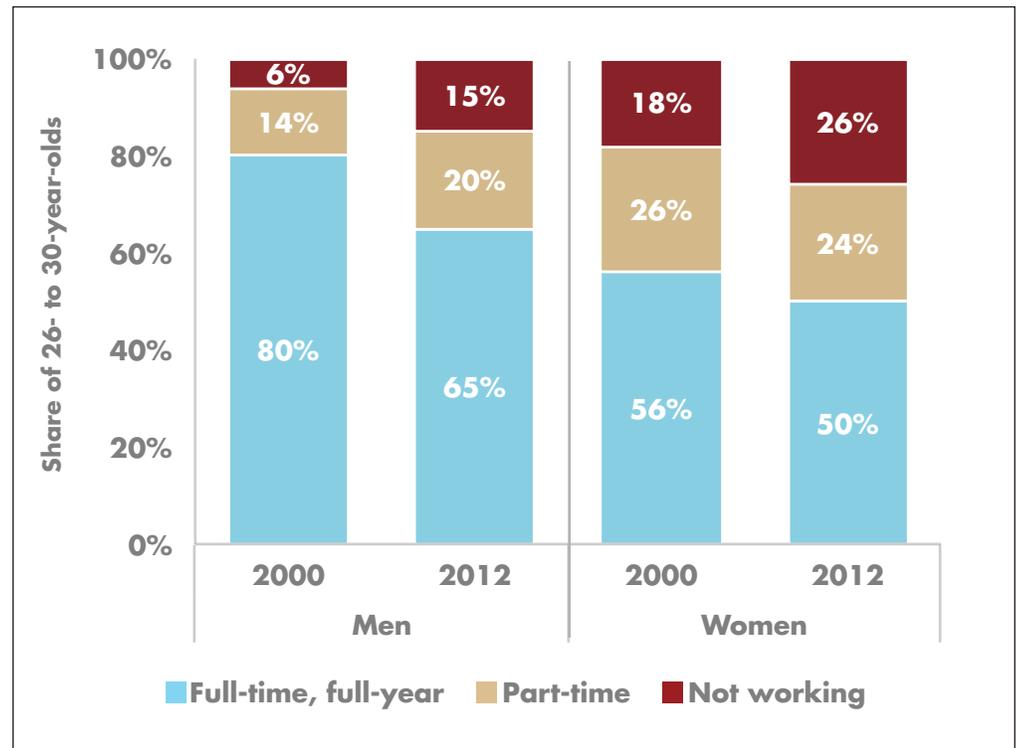
SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

The problems young people face today likely won't be temporary. Evidence suggests that entering the labor market in a bad economy can have pernicious long-term effects on earnings and employment that can last 10 to 15 years. Workers who enter the labor market during a bad economy can miss out on multiple years of lifetime wage growth, two-thirds of which happens in the first 10 years of a career.³⁷ It also results in so-called "cyclical downgrading," when workers settle for less attractive career options than they would in a healthy economy, which diminishes their ability to work their way up an occupational career ladder. Entering the labor market in a bad economy can mean annual earnings 3 percent below what a person would have made had he or she entered the labor market during good economic times, and a 1 percent increase in unemployment.³⁸

Young men experienced the greatest declines in labor force participation and employment, as their female peers outpaced them in postsecondary educational attainment.

Unemployment for 18- to 24-year-old men increased from 10 percent to 21 percent during the Great Recession, and their participation in the workforce declined from 76 percent to 65 percent. Figure 2.4 shows the changes in full-time, full-year employment and part-time employment for young men and women between 2000 and 2012. The employment rate of 25- to 29-year-old men fell from 94 percent to 85 percent; the age group's rate of full-time employment fell even more, from 80 percent to 65 percent – a drop more than twice the decline experienced by women in the same age group (a 15 percentage point decline for men versus a 6 percentage point decline for women). The gender gap in full-time, full-year employment declined from 24 percentage points to 15 percentage points, due to the large decline for men. The declines in overall employment – 9 percentage points for young men and 8 percentage points for young women – were similar, in part, due to the increased part-time employment for young men and the decline in part-time employment for young women.

Figure 2.4. The share of men in their late 20s who work full-time declined from 80 percent to 65 percent between 2000 and 2012.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2000, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

NOTE: "NOT WORKING" INCLUDES INDIVIDUALS WHO ARE UNEMPLOYED OR NOT IN THE LABOR FORCE.

Figure 2.5 shows the change in earnings between 2000 and 2012 for young men (ages 26 to 30) and older men (ages 55 to 64). Young men suffered large declines across the earnings distribution, while older men's earnings stagnated. For young men, earnings declined by 19 percent at the 25th percentile (from about \$24,000 to \$19,000 annually); 14 percent at the median (from about \$38,000 to \$33,000 annually); and 7 percent at the 75th percentile (from about \$52,000 to \$48,000 annually). By comparison, older men's earnings largely remained unchanged between 2000 and 2012.

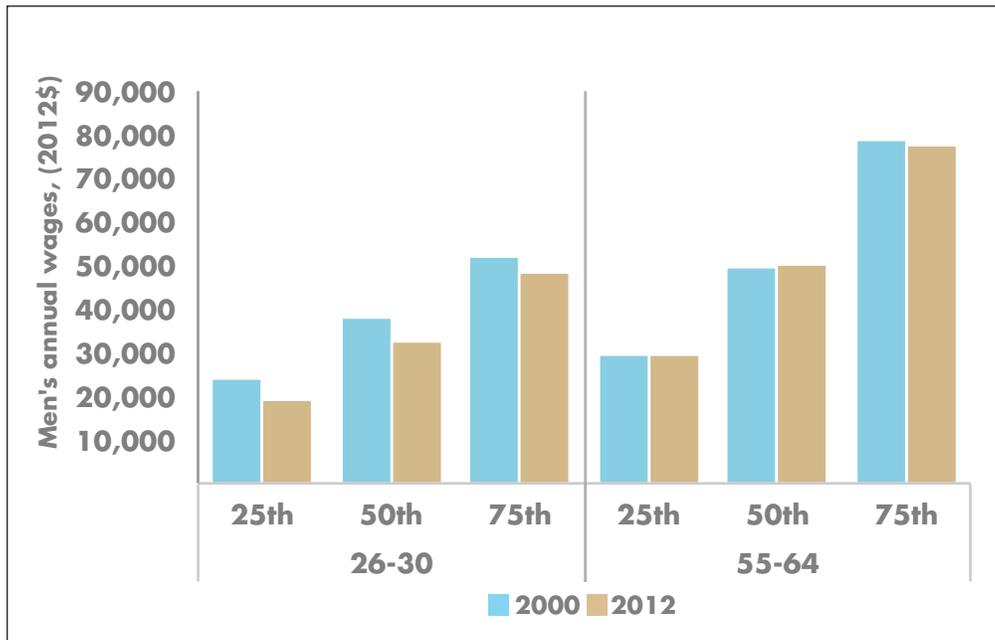
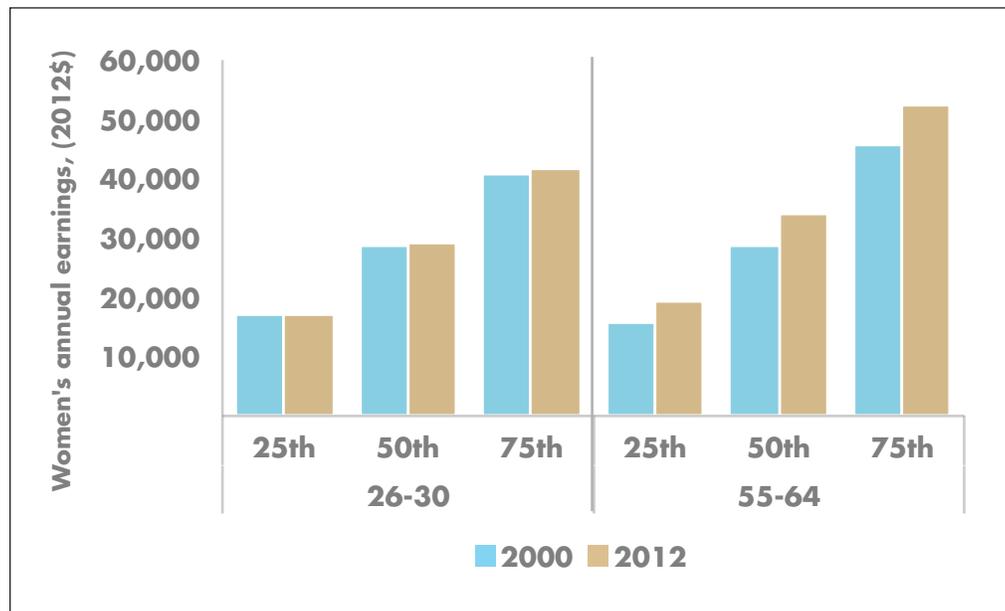


Figure 2.5. Young men experienced large wage declines between 2000 and 2012, while older men's earnings stagnated.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2000, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

Figure 2.6 shows the change in earnings for young women (ages 26 to 30) and older women (ages 55 to 64) across the wage distribution. Young women's earnings stagnated between 2000 and 2012, while older women experienced large wage growth. For older women, earnings grew by 23 percent at the 25th percentile (from about \$16,000 to \$19,000 annually); 18 percent at the 50th percentile (from \$29,000 to \$34,000 annually); and 14 percent at the 75th percentile (from about \$46,000 to \$52,000 annually).

Figure 2.6. Young women’s earnings stagnated between 2000 and 2012, while older women’s earnings grew substantially.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2000, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

Less-educated young adults were more vulnerable to spells of unemployment and they experienced declining access to full-time work relative to their college-educated peers.

The unemployment rate doubled for young workers with some college or less, while the only young adults with some protection from being unemployed were college graduates. The share of young adults employed full-time declined substantially across education levels in the first decade of the 21st century, but the declines were much greater for those who had less than a BA (Figure 2.7). Among 25- to 29-year-olds, the full-time employment rate declined by 13 percentage points for high school graduates (from 66% to 53%) and 14 percentage points for young adults who either dropped out of college or earned an AA (from 69% to 55%). By contrast, the full-time employment rate for young Bachelor’s degree-holders only declined 8 percentage points (78% to 70%).

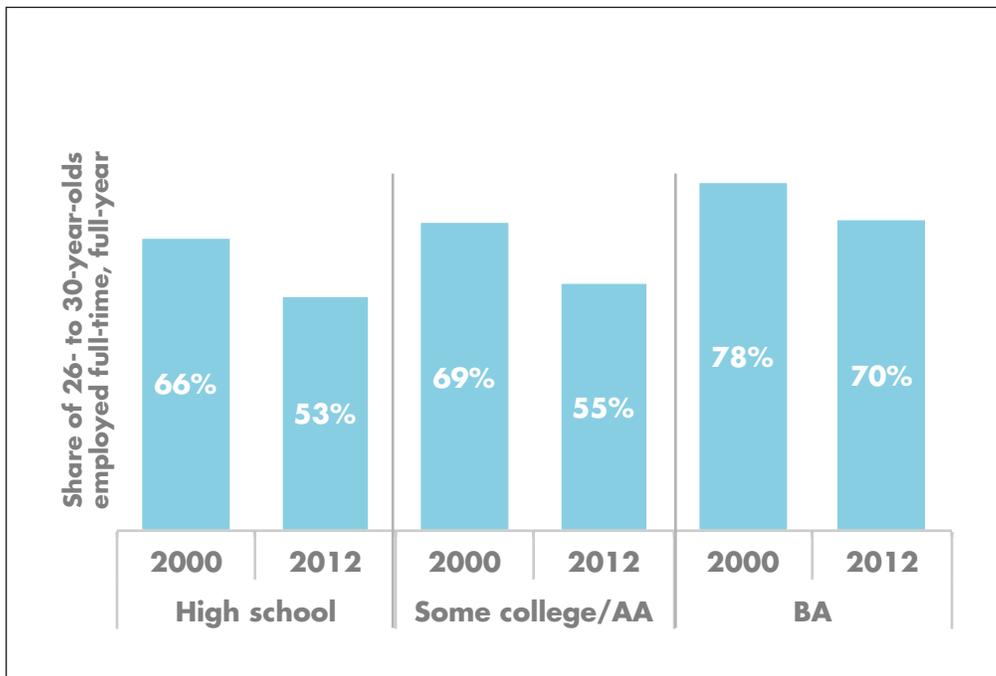


Figure 2.7. The full-time employment rate for young adults with less than a BA declined substantially more than for those with a BA.

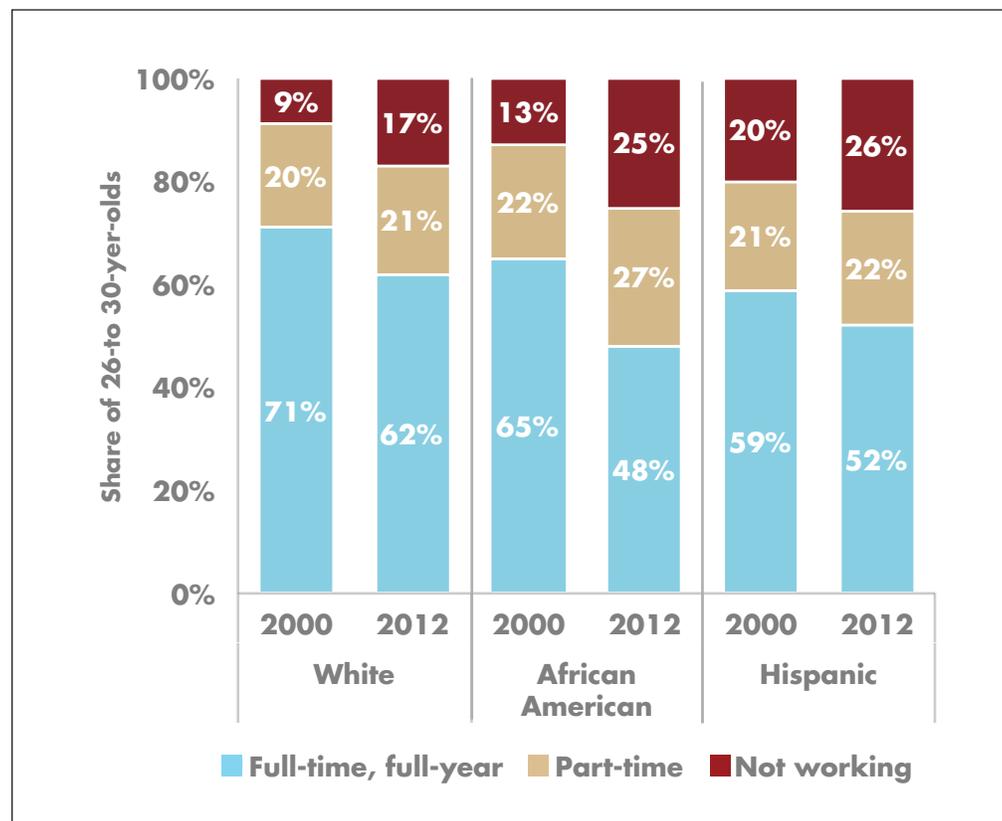
SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2000, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

Meanwhile, young adults have faced increased tuition and student loan debt. Between 1996 and 2006, the amount of student loan debt held by young people doubled.³⁹ Then, people under 35 experienced a steep decline in wealth during the Great Recession. Their net worth declined by 55 percent between 2005 and 2009, as they saw their home values plummet; many ended up “underwater.”⁴⁰ During this time, the share of people 35 or younger with negative net worth increased from 30 percent to 37 percent.⁴¹

Racial minorities and young people without a college education were the most vulnerable when the Great Recession hit in 2007.

Racial minorities were affected disproportionately by the economic downturn (Figure 2.8). All racial groups were affected by the recession, but young African Americans suffered the worst among racial groups. The share of African Americans in their late 20s working full-time declined from 65 percent to 48 percent, compared to a decline in employment from 71 percent to 62 percent for whites of the same age group.

Figure 2.8. Young African Americans experienced the greatest decline in employment among racial groups between 2000 and 2012.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2000, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

NOTE: "NOT WORKING" INCLUDES INDIVIDUALS WHO ARE UNEMPLOYED OR NOT IN THE LABOR FORCE.

The rate of unemployment peaked in 2010, and there were enormous differences in employment among young people based on race (Figure 2.9). The peak unemployment rate for young African Americans (30%) was more than twice as high as the peak unemployment rate for young whites (14%). The peak unemployment rate for young Hispanics was also higher than for young whites (20%), but still much lower than the rate experienced by young African Americans. For African-American male high school dropouts, the unemployment rate reached a shocking rate of 58 percent.

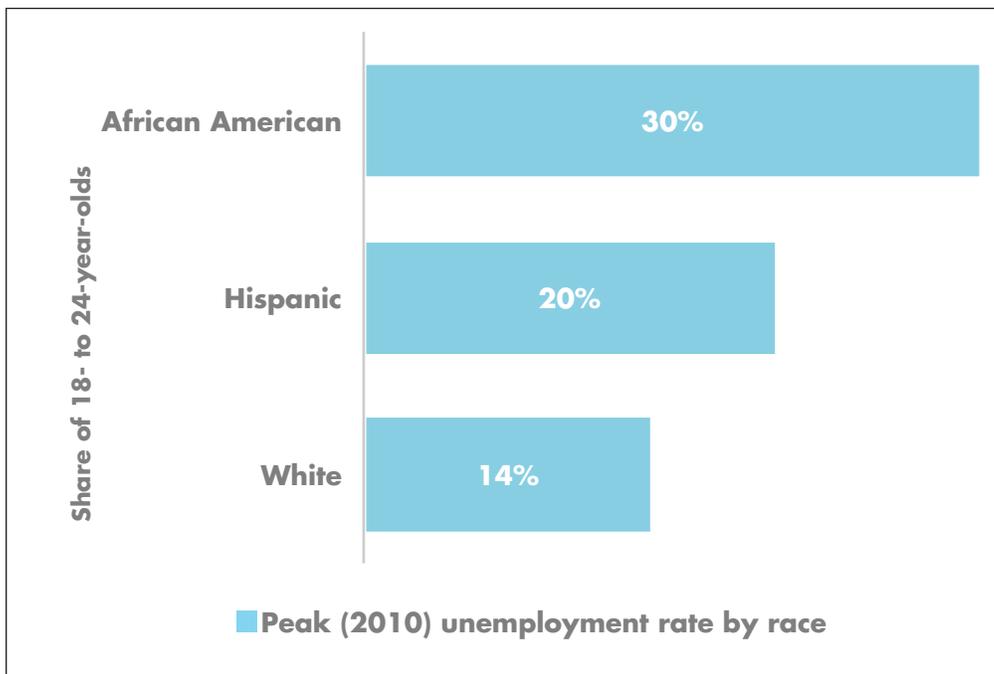


Figure 2.9. Following the Great Recession, the peak unemployment rate for young African Americans was more than twice as high as the peak unemployment rate for whites.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 2010, CPS UTILITIES, UNICON RESEARCH CORP.

While many older Americans have suffered long bouts of unemployment and financial difficulties, in the first years of the 21st century, their employment, income, and wealth levels continued to grow in spite of the economic downturn.

Seniors have faced a different set of problems in the 21st century. For those who lose their jobs, their chances of becoming re-employed are less than other age groups – they have longer bouts of unemployment than younger workers.⁴² Even those who are able to find employment after losing their jobs often have to take a large pay cut relative to other workers.⁴³ For many older workers, it does not make economic sense to return to school or participate in retraining programs because they don't have enough productive years left before retirement to recoup the upfront costs of these investments.

In December 2009, the unemployment rate for older people (ages 55 and older) reached 7.2 percent. There is considerable evidence that older workers who lose their jobs experience “scarring effects” – their earnings and job stability are permanently reduced.⁴⁴

For those 65 and older, their net worth declined by 6 percent during the Great Recession, though their income increased by 8 percent.⁴⁵ Many must continue working because the shift from defined benefit to defined contribution retirement plans left them at the whims of the financial markets.

Though everyone suffered in the Great Recession, many older workers were in senior positions that gave them shelter from the economic storm. Unemployment increased, particularly for men in the 55-to-64 age group, but the employment rate of men and women 55 and older actually increased, which seems unthinkable given the depth and severity of the recession. The labor force participation and the employment rate for seniors grew, particularly among women near retirement age and workers with a BA or better. The employment-to-population ratio for women between 60 and 64, for example, grew from 40 percent to 49 percent between 2000 and 2012. For workers with at least a BA, in the same age group, it grew from 54 percent to 63 percent. Also, for workers 65 and older with a graduate degree, the employment rate grew from 33 percent to 50 percent.

The older workers who fared worst during the first decade of the 21st century were men, particularly racial minorities and those with less education.

The unemployment rate for men ages 55 to 64 increased from 3 percent in 2000 to the peak of 9 percent during the recession. For African-American and Hispanic workers of both sexes, the unemployment rate in this age group increased from 3 percent to 11 percent. There is a question about how to interpret these data. One could object that older people are working not because they want to but because they have to. Yet America's most vulnerable citizens aren't those who have to work but those who are unable to find work. In addition, there is a social safety net for older Americans in the form of Social Security, including disability benefits and Medicare, that other age groups don't have access to. Moreover, the seniors who are continuing to work have more education, higher earnings, and often work in careers in which they have held long tenure.⁴⁶ In other words, among older workers, those who are high-skilled, well-paid, and experienced are the most likely to delay retirement. The group of older workers delaying retirement comprises individuals who need to work the least.



PART 3

**Where the Jobs Are
for Young People**



While economic opportunities have been lacking overall for young people over the past decade, there are metropolitan areas — such as Minneapolis-St. Paul, Minn., Columbus, Ohio, and Washington, D.C. — where young workers have been able to find work following the Great Recession.

The range in young adults’ employment rates between the best and worst metro areas is around 17 percentage points, which suggests that young people may be able to improve their chances of finding employment substantially by relocating to a stronger labor market. Table 3.1 shows the 10 metropolitan areas with the highest employment rates for 21- to 30-year-olds (limited to cities with youth populations of at least 200,000). Between 75 percent and 80 percent of young people in these metro areas are employed, compared to 70 percent nationally. Minneapolis-St. Paul, Minn., has the highest employment rate for young people at 80 percent, followed by Columbus, Ohio, at 78 percent, Denver-Boulder, Colo., at 77 percent, Washington, D.C., at 77 percent and Salt Lake City-Ogden, Utah, at 77 percent.

Table 3.1. Minneapolis-St. Paul, Minn., and Columbus, Ohio, have the highest employment rates for young adults among metropolitan areas.

Large metropolitan areas with the highest employment rate for 21- to 30-year-olds	
Metropolitan Area	Employment rate (%)
Minneapolis-St. Paul, MN	80
Columbus, OH	78
Denver-Boulder, CO	77
Washington, DC/MD/VA	77
Salt Lake City-Ogden, UT	77
Norfolk-Virginia Beach-Newport News, VA	75
Kansas City, MO-KS	75
Austin, TX	75
Seattle-Everett, WA	75
Milwaukee, WI	75

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

Riverside-San Bernardino, Calif., Miami-Hialeah, Fla., and Detroit, Mich., have the lowest employment rates for young adults among highly populated metro areas.

Table 3.2 shows the 10 large metropolitan areas with the lowest employment rates for 21- to 30-year-olds. Between 63 percent and 69 percent of young people in these metro areas are employed compared to a national average of 70 percent. The fact that the youth employment rate in the 10th worst large metro area is roughly equal to the national average is because the employment rate in metro areas with youth populations of at least 200,000 is slightly higher (71%) than in metro areas with youth populations of less than 200,000 (69%).

Large metropolitan areas with the lowest employment rate for 21- to 30-year-olds	
Metropolitan Area	Employment rate (%)
Riverside-San Bernardino, CA	63
Miami-Hialeah, FL	63
Detroit, MI	65
Sacramento, CA	66
New York-Northeastern New Jersey	67
Los Angeles-Long Beach, CA	67
Atlanta, GA	68
Tampa-St. Petersburg-Clearwater, FL	69
Philadelphia, PA/NJ	69
Orlando, FL	69

Table 3.2. Riverside-San Bernardino, Calif., and Miami-Hialeah, Fla. have the lowest youth employment rate (63%), followed by Detroit, Mich., (65%); Sacramento, Calif., (66%); and New York-Northeastern New Jersey and Los Angeles-Long Beach, Calif., (67%).

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

The most common jobs for young adults (ages 18 to 29) — such as cooks, cashiers, and waitresses — are largely concentrated in low-wage occupations, but some occupations offer young adults access to middle-class earnings.

Table 3.3 shows the 25 occupations where young men (ages 18 to 29) were most highly concentrated in 2010. Four of the most common occupations are in food service occupations: cook (the most common occupation), waiter, food prep worker, and waiter’s assistant. Nine of the 25 most common occupations (highlighted) pay more than \$35,000 annually,⁴⁷ but the majority offer low earnings. The most common occupation for young men that pays more than the \$35,000 threshold is truck, delivery, and tractor driver, in which 490,000 young men were employed in 2010.

Table 3.3. The most common occupations for young men are cook (780,000); retail sales clerk (590,000); and non-construction laborer (590,000). Among occupations that offer earnings greater than \$35,000 annually, truck driver (490,000); sales supervisor (380,000); and manager (340,000) are the most common.

25 most common occupations for young men (ages 18 to 29), 2010	
Occupation	Employment (000s)
Cook	780
Retail sales clerk	590
Laborer outside construction	590
Military	540
Cashier	500
Truck, delivery, and tractor driver	490
Stock and inventory clerk	430
Construction laborer	410
Supervisor of sales jobs or proprietor	380
Gardener and groundskeeper	380
Waiter	350
Manager and administrator	340
Janitor	310
Customer service rep, investigator and adjuster, except insurance	310
Salesperson	300
Food prep worker	280
Computer systems analyst and computer scientist	270
Carpenter	240
Farm worker	220
Machine operator	210
Automobile mechanic	200
Guard, watchman, doorkeeper	200
Computer software developer	190
Waiter’s assistant	190
Electrician	150
Teacher	150

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

Table 3.4 shows the 25 most common occupations where young women (ages 18 to 29) are most highly concentrated. Cashier is the most common occupation, where roughly 1.2 million young women are employed. Similar to young men, nine out of the 25 most common occupations (highlighted) pay more than \$35,000 annually, but most pay low wages. The most common occupation that pays more than the \$35,000 threshold is secretary, in which 510,000 young women were employed in 2010.

25 most common occupations for young women (ages 18 to 29), 2010	
Occupation	Employment (000s)
Cashier	1,180
Waitress	870
Retail sales clerk	700
Nursing aide, orderly, and attendant	660
Customer service rep, investigator and adjuster, except insurance	520
Secretary	510
Primary school teacher	470
Child care worker	460
Receptionist	370
Supervisor of sales jobs and proprietor	350
Cook	350
Registered nurse	330
Teacher	320
Hairdresser and cosmetologist	240
General office clerk	230
Health aide, except nursing	230
Food prep worker	220
Salesperson	210
Accountant and auditor	200
Manager and administrator	190
Personal service	190
Housekeeper, maid, butler, steward, and lodging quarters cleaner	180
Bank teller	180
Dental laboratory and medical appliance technician	170
Kindergarten and earlier school teacher	160
Waiter's assistant	160

Table 3.4. The most common occupations for young women (ages 18 to 29) are cashier (1.2 million), waitress (870,000), and retail sales clerk (700,000). Among occupations that pay more than \$35,000 annually, secretary (510,000), primary school teacher (470,000), and sales supervisor (350,000) are the most common.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

A dark red ribbon graphic with a pointed right end, containing the text 'PART 4'.

PART 4

Myths about the Generations

The background features a light blue-to-teal gradient at the top, transitioning to a light green and then a light orange gradient at the bottom. Two stylized, white, fluffy clouds are positioned on the right side, one higher and one lower, adding a soft, atmospheric feel to the design.

Many myths permeate the public discussion about why young people have struggled in the labor market in the 21st century. Despite the fact that members of all generations have suffered due to economic factors beyond their control, many people want to attribute the economic outcomes of the millennial generation to their particular character or culture rather than the circumstances they face; social psychologists call this the “fundamental attribution error.” For example, in May 2013, an article appeared in Time magazine by journalist Joel Stein titled, “The Me Me Me Generation: Millennials Are Lazy, Entitled Narcissists Who Still Live with Their Parents: Why They’ll Save Us All.”⁴⁸ Others suggest that millennials don’t have soft skills, have high rates of drug use, are unable to accept criticism, are overly competitive, or do not have quantitative reasoning skills. These claims are rarely backed by empirical evidence, though often by anecdote. The truth is that today’s generation of young people is more educated than ever and the problems they face are exogenous – due to structural changes in the economy and cyclical factors – and the fact that the younger generations tend to suffer more in recessions. In other words, it is both unfair and mistaken to place the blame for young people’s economic woes solely at their feet.

In addition, many claims are made about the growing tension and fight for resources and jobs among the generations. Some of these claims are true, but others are not. Some people believe that older workers who are staying in the workforce longer are cannibalizing opportunities for younger workers who are trying to launch their careers. Others believe that the increasing share of public resources devoted to supporting seniors’ retirement and funding their medical bills are preventing the public from making the investments necessary to educate and train today’s youth so they are prepared for 21st century careers. Worst of all, in the generational fight over public resources and jobs, the United States may be limiting her future potential to grow the economic pie so that both the young and old can have larger slices.

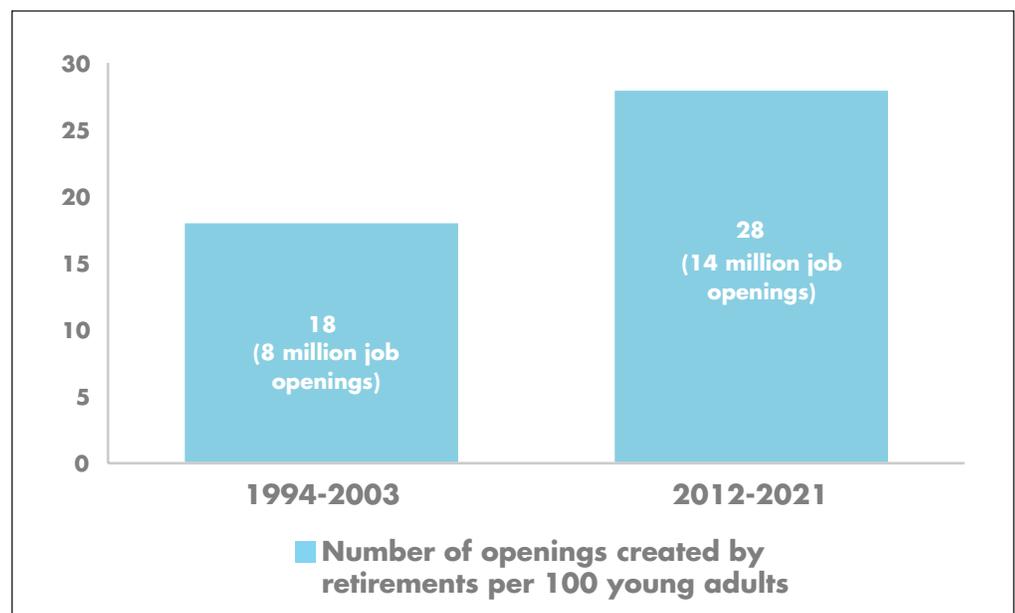
Working seniors aren't crowding young adults out of the labor market.

Because so many Americans, especially the young, are unable to find work, some people are concerned that, by delaying retirement, seniors are cannibalizing opportunities that otherwise would have been available to young adults. However, this view is specious for three reasons.

First, it considers only one side of the demographic equation; yes, more seniors are delaying retirement than in previous decades, but more seniors are also retiring, due to the sheer size of the baby boom generation, leading to more job openings created from retirements. A basic analysis of the demographics of the U.S. population illustrates there shouldn't be cause for concern; by the end of the baby boom retirement phase over the next 15 years, the problem won't be lack of job openings, but not enough workers with the necessary skills to fill those openings. Because the baby boom cohort is larger than any of the recently retired cohorts, baby boom retirements will lead to more job openings than retirements from previous generations. While seniors' employment rate has gone up, it is still low relative to the employment rate of the prime age population. Even at its highest rate in more than 30 years, only one out of five people 65 and older is employed, meaning that the vast majority, four out of five, are not working.

Because of these demographic factors, seniors retiring are creating more job openings today than they were in the 1990s, when the youth labor market was healthy (Figure 4.1). Between 1994 and 2003, there were 8.3 million job openings created from retirements of workers who were between the ages of 55 and 64 in 1994. By comparison, between 2012 and 2021 there will be 14.3 million job openings created from retirements by the same age group. Over that time period, the ratio of job openings created from retirements to young people (ages 18 to 29) has increased. In the 1990s, retirements created 18 job openings for every 100 young adults; in the 2010s, retirements can be expected to create roughly 28 job openings for every 100 young adults.

Figure 4.1. There are more job openings created by retirements per young person today than there were in the 1990s, when young people had high rates of employment—older workers aren't crowding out the young.⁴⁹



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF CURRENT POPULATION SURVEY, MARCH, 1994, 2012, CPS UTILITIES, UNICON RESEARCH CORP.

Second, the argument that older workers are blocking the entry of young workers relies on a flawed understanding of how the economy works, which suggests there are a fixed number of jobs and amount of work to be done. The premise just isn't true. Economic growth and the growth of the labor supply create new businesses and jobs because they lead to a larger base of consumers, as well as greater specialization and higher productivity. Consider the enormous inflow of women into the workforce during the second half of the 20th century. Between 1965 and 2000, the number of women in the workforce tripled, growing from less than 20 million to more than 60 million. But this huge influx of women didn't cannibalize opportunities for men; men's employment still grew from less than 50 million to more than 70 million over the same time period (Figure 4.2).

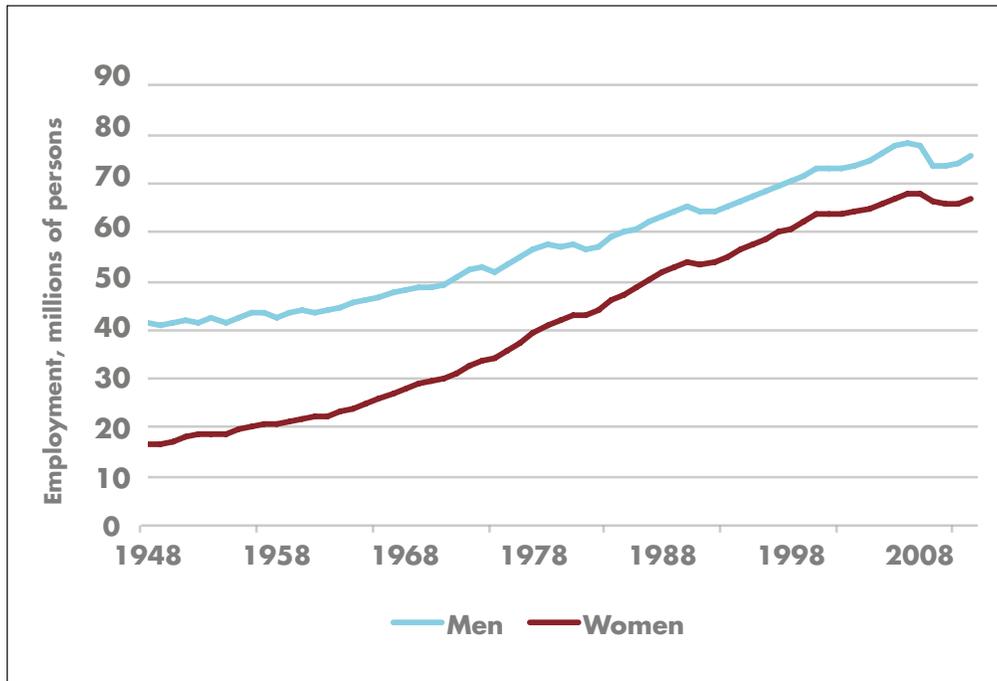


Figure 4.2. The massive influx of women into the workforce didn't crowd out men — male employment continued to grow.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE FEDERAL RESERVE BANK OF ST. LOUIS, 1947-2012

Third, the empirical evidence suggests that in countries where seniors are employed at higher rates, young adults are also. The Government Accountability Office (GAO), for example, in a 2012 report on the unemployment of older workers and its impact, dismissed the notion that older workers diminish opportunities for younger workers, presenting evidence from several recent multinational studies showing that the employment of older workers does not negatively impact employment of younger workers.⁵⁰ Instead, higher employment among older workers is associated with higher employment of younger workers, whether an economy's growth is weak or strong; conversely, early retirement by a large number of older workers is associated with higher unemployment among younger workers.⁵¹

In other words, the relationship between seniors and young adults is positive sum, not negative sum: when seniors do well, young adults are better off. But what about the converse: why should seniors care about how young people fare? The economic success of young people – as future business and political leaders, as well as the financiers of social insurance programs, such as Medicare, Medicaid, and Social Security – is critical to alleviating the budgetary pressure on social programs for seniors. Seniors' health and economic well-being depend upon young people's ability to acquire the education and skills necessary to fill 21st century jobs. Since there will be fewer young people in the labor force relative to retirees once the majority of baby boomers reach retirement, the young people will need to be substantially more productive than the current workers for the United States to maintain its current levels of support for Social Security and Medicare.

Encouraging older adults to retire early would be to the detriment of young adults.

The slow growth of the labor force is likely to slow down the economy's rate of growth in the future, according to the nonpartisan Congressional Budget Office.⁵² By 2030, 20 percent of the population (72 million Americans) will be 65 and older, compared to 12 percent in 2000.⁵³ Encouraging seniors to leave the workforce too early would only exacerbate this trend, along with potentially damaging their health and well-being, since maintaining employment late in life typically correlates with increased health, wealth, and happiness.⁵⁴

It would also mean fewer public resources that could be used to benefit the young, since longer work lives mean more revenue for governments. On the other hand, early retirement means higher costs for Medicare and Social Security, and correspondingly higher taxes for the young and prime-age workers who must finance these programs.

Investing in education and training programs for the young isn't to the detriment of the old, but prioritizing consumption in government budgets will likely crowd out investments in youth in the near future if current trends continue.

In the federal budget fights over the past several years, most of the cuts have been to the non-defense discretionary spending part of the budget, while entitlements for seniors largely have been protected. Education and workforce development programs are part of this discretionary spending portion of the budget, and as a result are most likely to end up being cut. Over the past 40 years, due to an aging population, spending on Medicare and Social Security has taken an increasing share of public spending, while education's priority in public budgets has diminished (Figure 4.3). At the federal level, education has received a declining share of the budget since 2000; at the state and local levels, education appropriations have declined both as a share and in absolute terms. This is unfortunate, not only because these programs have the most direct impact on welfare of the young, but also because they are directly related to human capital development of the future workforce, which will have an impact on the long-term economic growth and competitiveness of American workers in the 21st century global economy.

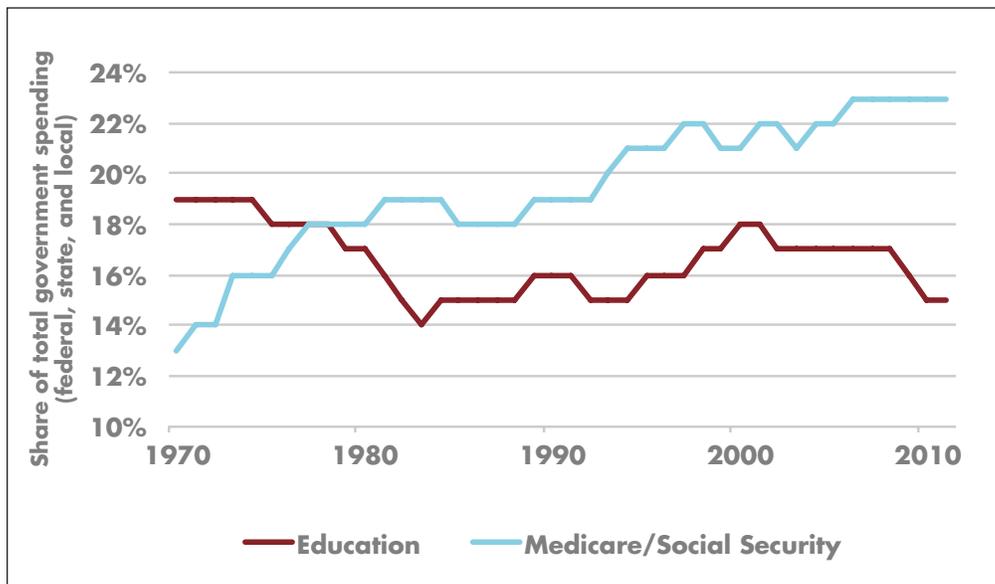
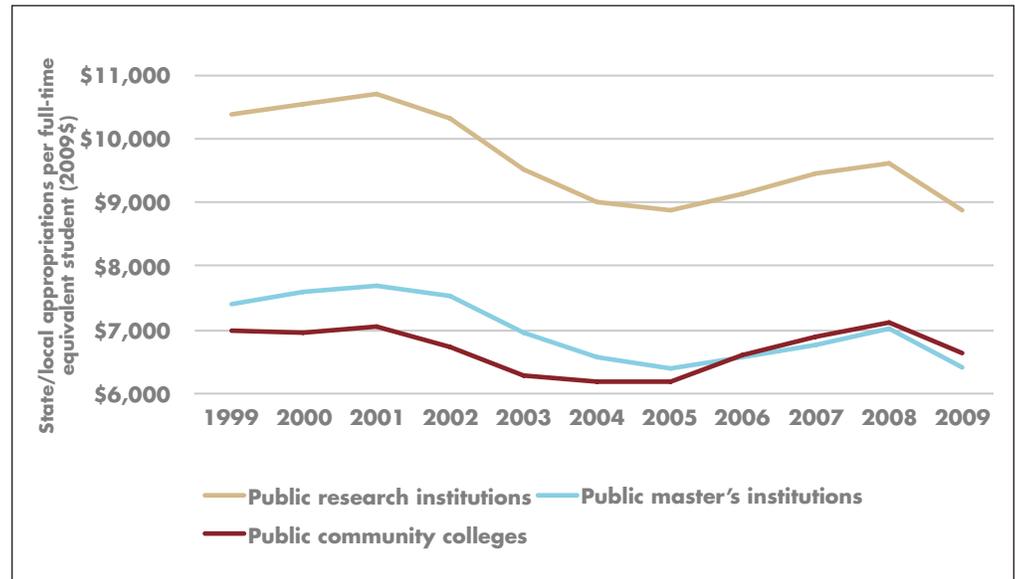


Figure 4.3. Since the 1960s, the share of public spending on Social Security and Medicare has grown, putting increasing pressure on funding for education and training programs.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE BUREAU OF ECONOMIC ANALYSIS, NATIONAL INCOME AND PRODUCT ACCOUNTS TABLES, 1969-2011

Similarly, state and local governments have cut budgets for education, which is categorized as discretionary spending and must be appropriated every year (Figure 4.4). State legislators allocate funds to discretionary programs based on their budgets and available resources. Retirement plans, however, are mandatory spending, which puts them in a different category. Mandatory programs are more difficult to reform than discretionary programs because their spending is determined by formulas written into existing law, and their funding does not need to be appropriated on an annual basis.

Figure 4.4. State and local appropriations for higher education institutions declined between 1999 and 2009.



SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE DELTA COST PROJECT⁵⁵, 1999-2009

Seniors' public benefits are mostly funded using formulas that increase their level of spending based on cost-of-living adjustments and medical price increases, whereas public spending on education typically does not adjust for the cost of living and therefore has less protection from inflation.

On the other hand, there is evidence that the public's increased financing of consumption is crowding out public investments in infrastructure, education, and research and development, which are critical for promoting long-term economic growth. Prior to 1980, the government spent around 2.6 percent of gross domestic product (GDP) on investment, but averaged only 1.8 percent between 1985 and 2009.⁵⁶ Federal, state, and local governments altogether spend roughly \$12,000 per child under 19, but \$26,000 per senior 65 and older.⁵⁷ To date, governments have managed to maintain their investments in programs for children, but over the next decade, these investments are expected to fall from 10 percent of government spending to 8 percent.⁵⁸ Education budgets at the federal, state, and local levels have already been squeezed over the last decade.

The aging of the U.S. population presents challenges, but the consequences aren't necessarily dire, especially if the United States can find ways to further promote the employment of older adults and young adults' ability to be gainfully employed.

PART 5

The Generational Social Compact



The workforce of the 21st century will look quite different from the workforce of the 20th century. While adapting institutions to the new age workforce constitutes a challenge, it also reflects a unique opportunity to develop the most dynamic, skilled workforce in the world. The occupational shift from blue-collar jobs in the manufacturing industry to sales, office, and service jobs across industries now allows a greater share of the population to participate productively in the workforce and contribute to the economy, provided they have the requisite skills. The most effective ways to meet this challenge head on are to revamp and restructure our human capital development system to meet the needs of all age groups and promote labor market services and public service opportunities.

However, the current lack of flexibility in the labor market keeps many capable individuals who would contribute productively to the economy from doing so. Flexible work arrangements have the potential to eliminate barriers to entry for many older adults, who would be able to balance their health, family, and work priorities better, and allow young adults the opportunity to learn while earning and develop relevant career knowledge to prepare them for the full-time labor market. Increased telework can also enhance labor market functioning by lowering economic friction that results from the need for geographic mobility. By initiating the building of a new intergenerational social compact, the United States can reclaim the economic dynamism and vitality that lifted millions out of poverty and into the middle class in the 20th century, and become the economy with the most diverse, vibrant, and uniquely skilled workforce that is the envy of the world.

A first set of reforms should focus on ensuring that the money the United States is investing in youth is being spent wisely, an arena where there is ample room for reform.

The United States ranks 11th in the share of young people, 25-34, with a two- or four-year degree, but ranks first in student-related spending per college graduate and as a share of GDP.⁵⁹ Canada and Korea spend roughly the same as the United States on postsecondary education, but have postsecondary attainment rates of 56 percent and 65 percent, respectively, compared to 42 percent in the United States. The United Kingdom, France, and Sweden have similar postsecondary attainment rates as the United States, but achieve them at a significantly lower cost. If the United States were as efficient as South Korea, Canada, or the United Kingdom, its postsecondary attainment rate among young people would increase from 43 percent to more than 60 percent (Table 5.1).

One might think that costs are higher in the United States because of its focus on the four-year degree track, and indeed, the United States has a relatively high four-year degree attainment rate (33%) and a relatively low two-year degree attainment rate (10%). However, even double-weighting four-year degrees relative to two-year degrees moves the United States only one place up in the efficiency rankings. Although the U.S. four-year degree attainment rate is relatively high, it remains below Norway (46%), South Korea (39%), the United Kingdom (38%), and several other countries.

Country	Postsecondary spending as a share of GDP (%)	Postsecondary attainment, 25-34 year olds (%)	Postsecondary efficiency rating ⁶⁰	Weighted postsecondary efficiency ⁶¹
Finland	1.9	39	21	76
Norway	1.4	47	34	67
Korea	2.6	65	25	65
Spain	1.3	39	30	60
Sweden	1.8	42	23	58
Australia	1.6	44	28	52
Switzerland	1.3	40	31	51
Ireland	1.6	48	30	51
Belgium	1.5	44	29	48
Israel	1.6	44	28	48
Canada	2.5	56	23	48
France	1.5	43	29	46
Poland	1.5	37	25	44
Netherlands	1.7	41	24	42
Italy	1.0	20	20	35
United Kingdom	1.3	46	35	34
Germany	1.3	26	20	31
United States	2.6	42	16	29
Portugal	1.4	25	18	28
Austria	1.4	21	15	14

Table 5.1. The United States has one of the least cost-effective postsecondary education systems among developed countries.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF DATA FROM THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, 2010

NOTE: THE CALCULATIONS IN THIS TABLE ARE EXPLAINED IN APPENDIX A AND ENDNOTES 60 AND 61.

At current productivity rates, the United States cannot afford all the postsecondary education and training the country needs. The first step toward higher productivity in the postsecondary system is greater transparency in the alignment between postsecondary programs and labor market outcomes. Greater transparency between postsecondary education and training curricula and career pathways is a relatively low-cost, self-regulating way to get more bang for the educational buck.

Choosing a postsecondary program is the first big investment decision made by young people, especially the majority of students who will finance their postsecondary study with loans. They need to understand the risks and rewards associated with their choice of colleges and fields of study. As the cost of particular certificates and degrees grows and the labor market returns shift, prospective students need more information to guide their choices and to ensure high returns on their investments.

Aligning education more closely with careers is also the best way to encourage student success. People with some sense of where they are going are more likely to get there. A student's choice of career is the primary motivation for going to college. Helping students connect their college studies with their future careers captures this motivation and increases graduation rates.

The basic elements of a college and career information system already exist (including the U.S. Department of Education's College Navigator system); the dots just need to be connected.

All the necessary data exist, the United States just needs to move them from the nation's statistical warehouses to the kitchen tables where college and career choices are made. Ultimately, the United States needs to make the connection between postsecondary costs, completion, and gainful employment at the institutional and program levels. Cost and completion data are more and more available in states and at the national level. The most important missing piece of current information systems is publicly available data on employment and earnings attached to particular postsecondary programs. Most states have made the effort to connect programs with labor markets in their internal data systems but have not developed usable formats for students, policymakers, or postsecondary administrators. Sens. Ron Wyden, D-Ore., and Marco Rubio, R-Fla., have introduced the Student Right to Know Before You Go Act, which would take the next step in developing these state systems in useable formats. Similar bipartisan legislation, H.R. 4282, has been introduced in the House.

Other postsecondary education reforms that would enhance the ability to educate more students at a lower cost are tied to reforming financial aid. Making the financial aid application process simpler and more transparent, connecting financial aid to certain educational goalposts, and strengthening academic progress requirements are several examples of promising reforms in financial aid delivery. Other reforms involve giving students credit for previous or independent learning to allow them to move through programs at a more rapid pace, creating alternative mastery- and competency-based modular curricula, tailoring flexibility of financial aid programs to better address the needs of non-traditional students, and providing incentives for institutions to improve student academic and career success.

Active labor market policies and flexible work arrangements can accelerate progress along the on-ramp into full-time careers for young adults and ease the transition of older workers out of the full-time workforce into retirement.

Reforming education won't be enough to promote opportunities for young adults. Governments should also provide aid to young people seeking work through active labor market policies that feature strong interventions to promote work experience for young people. For those starting their careers, applied learning experiences that promote movement along career pathways, such as internships, fellowships, apprenticeships, and mentorships, would better facilitate their transition into the full-time labor market.

For displaced workers who are long-term unemployed or need additional skills or training, active labor market programs that feature strong interventions – such as compulsory job counseling, training programs, and employment services tied to unemployment insurance (UI) benefits – would provide essential supports.

Public service represents an on-ramp for Americans across the age spectrum to serve their communities in productive ways, such as tutoring struggling students or rebuilding homes in towns and cities struck by natural disasters, while acquiring a wide range of skills and experience with labor market value. The Corporation for National and Community Service provides opportunities to both young adults and seniors through programs such as AmeriCorps and Senior Corps. Congress should meet President Barack Obama's budget request of \$1.061 billion for FY2014 for these programs and sustain that funding through the end of the decade.

The United States can also look to our international peers, who invest considerably more in active labor market programs. As a share of GDP, Japan, Australia, and Canada spend twice as much as the United States does on these programs, while South Korea spends three times as much and Germany spends nearly seven times as much.⁶² In the late 1990s, Britain authored a “New Deal for Young People,” an active labor market program structured to reduce long-term unemployment among youth. The program mandated compulsory participation in an intense job-counseling program after claiming unemployment benefits for six months; failing to participate in the program meant the loss of unemployment benefits.⁶³ The program specifically targeted demographic groups that were prone to bouts of long-term unemployment.

Flexible work arrangements, such as job sharing, work sharing, part-time work, flex-time, compressed week schedules, contract work, and telecommuting have favor with employees as well as potential to improve productivity, job performance, absenteeism, turnover, and employee satisfaction.⁶⁴

For younger workers, flexible work arrangements make it easier to learn and earn – to develop work experience relevant to their field of study while earning a wage. Employers today consistently demand one to two years of work experience even for entry-level jobs. Yet, too often, holding a job becomes an obstacle to completing a postsecondary credential. Flexible work arrangements, in addition to internships, fellowships, and apprenticeships, can help young adults balance competing work and education demands on their time.

For older workers, flexible work arrangements can help make transition to retirement smoother by allowing them to achieve better balance between job demands, family responsibilities, health care needs, and leisure. Many older workers find it difficult or undesirable to continue working a regular full-time schedule as they get close to retirement – they want flexible options and reduced work schedules, but cannot access them because of rigidities in the labor market. Providing flexible options promotes employment opportunities for older adults, and in turn promotes their health and economic well-being.

Incentives that promote seniors' employment will ease the economic and budgetary pressures associated with an aging population.

There is considerable evidence that promoting work for seniors would counteract the economic and budgetary pressures associated with an aging population, as well as promote the health and well-being of seniors. Butrica et al. (2006) find that working just one more year increases retirement income by 9 percent, while working five more years increases it 56 percent.⁶⁵ According to the same study, lower income workers have the most to gain: an additional year of work contributes an additional 16 percent to their retirement income and five years of additional work can increase their retirement income by 98 percent.

It makes sense for employers and governments to avoid programs, policies, and practices that penalize working seniors. Autor (2003) and the Congressional Budget Office (2010) list the Social Security Disability Insurance policies as an example, suggesting some policies may increase the costs associated with an aging population by creating barriers to work. Butrica et al. (2006) find that delayed retirement would not only generate more revenue to alleviate the long-term insolvency of retirement programs, it would also generate higher earnings that could serve as compensation for any potential reductions in benefits.

Relaxing immigration restrictions, particularly for high-skill immigrants, would speed up labor supply growth and reduce the ratio of retirees to working adults.

Another chief way to address the slow-growing labor supply is by relaxing immigration restrictions. Since its inception, America has been a country of immigrants, which has been a key factor in developing its international advantage in the 20th century. Allowing more immigration, particularly of high-skill immigrants, would alleviate our generational economic struggle in several significant ways. It would be a boon to economic growth. By adding more human capital, the United States would produce more (potentially adding billions to GDP), be more innovative, and create more businesses and jobs. More immigrants would mean a larger workforce, more taxpayers, and a lower dependency ratio, easing the public's burden to make hard choices about investing in youth or maintaining the public commitments to seniors.

PART 6

Conclusion



While the situation may look dire for today's generation of young adults, there are several reasons for optimism. First, millennials themselves are the most optimistic generation: 88 percent of 18- to 34-year-olds think they either have, or will have, enough money in the future to achieve their long-term financial goals.⁶⁶ Second, millennials are the most-educated generation: 60 percent of women have attained at least some college credit, compared to 52 percent of women from Generation X and 34 percent of baby boomers at the same ages.⁶⁷ Third, despite troubling trends in the labor market and changing sociocultural norms, millennials' median household income remains the highest of any generation at similar ages.⁶⁸

But optimism alone will not address the problems that confront today's generation of young adults and will continue to affect future generations unless the United States confronts the problems directly. Young adults' ability to thrive in the labor market as previous generations have depends upon our ability to reform the generational social compact to meet the new demands of a 21st century economy and society: enhancing the productivity of our education system; establishing active labor market policies that promote young adults' connection to careers; restructuring the off-ramp from full-time careers to retirement; and adopting policies that promote gainful employment. These reforms would promote economic growth by alleviating the costs associated with an aging society and a slow-growing labor force.

Endnotes

¹ Throughout this report, “employment rate” is used to refer to the employment-to-population ratio: the number of individuals in a cohort employed as a share of the population. It does not refer to the inverse of the unemployment rate (which only includes individuals in the labor force).

² Leonhardt, *Here's the Deal* (2013).

³ Throughout this report, unless otherwise noted, the phrases “older adults” and “older workers” refer to individuals ages 55 and older. Similarly, unless otherwise noted, the phrases “young adults” and “young workers” refer to individuals between the ages of 18 and 29.

⁴ Taylor et al., *Young, Underemployed and Optimistic* (2012).

⁵ These trends reflect the trends for men overall, but are especially concentrated among young men.

⁶ “Prime age” refers to the period of life in which adults are most likely to be employed full-time, have high earnings, and make significant tax contributions. The prime working age is often defined as 25-54. However, in our analysis, because we analyze detailed trends of young adults in the 25-to-29 age group, we use 30-54 as our definition of the prime working age. In addition, using this age group allows us to conduct a more complete analysis of historical trends, as the peak earnings and employment rates of adults have shifted from the 25-to-54 age range to the 30-to-59 age range.

⁷ Bell and Blanchflower, “Young People and the Great Recession” (2011).

⁸ 2008 is chosen as the end year to avoid the effects of the Great Recession on earnings. By 2010, young workers’ (18-29) annual earnings declined to \$21,000, eliminating the minimal earnings growth they had experienced over the past three decades.

⁹ There is inconsistent evidence about the effect of job mobility on earnings. Some evidence suggests that additional years of job tenure are associated positively with higher earnings and that job instability in the initial years after leaving school has a negative wage effect for young men (see, e.g., Holzer and LaLonde [1999]). Other research suggests job mobility has positive effect on wages, particularly in the early years of one’s career (see, e.g., Huffman, “Does Changing Jobs Pay Off?” [2012]).

¹⁰ Taylor et al., *Young, Underemployed and Optimistic* (2012).

¹¹ Brownstein, “Upside Down” (2011).

¹² Danziger and Ratner, “Labor Market Outcomes” (2010).

¹³ Goldin and Katz, *The Race between Labor and Technology*, (2008).

¹⁴ Carnevale, Smith, and Strohl, *Help Wanted* (2011).

¹⁵ Carnevale, Smith, and Strohl, *Recovery* (2013).

¹⁶ In this report, “BA” refers to all four-year degrees. Similarly, “AA” refers to all two-year degrees, and “HS” refers to high school diplomas.

¹⁷ Carnevale and Rose, *The Undereducated American* (2011).

¹⁸ For more information on changes at the detailed occupational level, see Appendix B.

¹⁹ Fry, *A Rising Share of Young Adults Live in Their Parents’ Home* (2012).

²⁰ Taylor et al., *Young, Underemployed and Optimistic* (2012).

²¹ Taylor et al., *The Old Prosper Relative to the Young* (2011).

²² Ibid

²³ Source: U.S. Census Bureau, Current Population Survey, March and Annual Social and Economic Supplements (2011 and earlier).

²⁴ Mathews and Hamilton, *Delayed Childbearing* (2009).

²⁵ Buchman et al., “Gender Inequalities in Education” (2008) argue that women’s inability to find a similarly educated spouse and ability to achieve financial independence have led women to delay marriage or forgo it altogether.

²⁶ U.S. Social Security Administration, Office of Policy (2007).

²⁷ Taylor et al., *The Old Prosper Relative to the Young* (2011).

²⁸ Labor force participation and employment rates are also higher among older adults with higher educational attainment because they have higher life expectancies and health outcomes than less-educated older adults.

²⁹ Burtless, “The Impact of Population Aging” (2012).

³⁰ Weir, “Are Baby Boomers Living Well Longer?” (2007).

³¹ Maestas and Zissimopoulos, “How Longer Work Lives Ease the Crunch of Population Aging” (2009).

³² Because employer-based health insurance is tax exempt, individuals can access higher value plans at a lower cost than if they purchased a plan individually.

³³ Net worth values are in 2010 dollars.

³⁴ Waldron, Trends in Mortality Differentials and Life Expectancy for Male Social Security-Covered Workers, by Average Relative Earnings, (2007).

³⁵ Georgetown University Center on Education and the Workforce analysis of data from Economic Research, Federal Reserve Bank of Saint Louis: <http://research.stlouisfed.org/fred2/series/LNS14000036>

³⁶ Bell and Blanchflower, “Young People and the Great Recession” (2011).

³⁷ Kahn, “The Long-Term Labor Market Consequences” (2010).

³⁸ Ibid.

³⁹ Taylor et al., *Young, Underemployed and Optimistic* (2012).

⁴⁰ Taylor et al., *The Old Prosper Relative to the Young* (2011).

⁴¹ Ibid.

⁴² Georgetown University Center on the Workforce analysis of data from Heldrich Center for Workforce Development at Rutgers University.

⁴³ Ibid.

⁴⁴ Rutledge et al., *How Will Older Workers Who Lose Their Job During the Great Recession Fare in the Long Term?* (2013).

⁴⁵ Taylor et al., *The Old Prosper Relative to the Young* (2011).

⁴⁶ Burtless, "The Impact of Population Aging" (2012).

⁴⁷ The \$35,000 is used as a Minimum Earnings Threshold (MET) to support a family of four.

⁴⁸ Klein, "The Me Me Me Generation" (2013).

⁴⁹ Note: This analysis does not account for cohort mortality for ages 55-64 and 65-74. See Appendix A for more detail.

⁵⁰ U.S. Government Accountability Office, *Unemployed Older Workers*, (2012).

⁵¹ Ibid.

⁵² Porter, "The Payoff in Delaying Retirement" (2013).

⁵³ Report of the Taskforce on the Aging of the American Workforce (2008).

⁵⁴ Ibid.

⁵⁵ Desrochers and Wellman, *Trends in College Spending* (2011).

⁵⁶ Leonhardt, *Here's the Deal* (2013).

⁵⁷ Isaacs, *Kids' Share: 2012* (2013).

⁵⁸ Ibid.

⁵⁹ OECD *Education at a Glance 2013* (2013). <http://dx.doi.org/10.1787/eag-2013-en>.

⁶⁰ The postsecondary efficiency metric is calculated by dividing a country's postsecondary attainment rate for 25- to 34-year-olds by the country's postsecondary spending as a share of GDP. The metric indicates what attainment rate a country would achieve by spending 1 percent of GDP on postsecondary education at current efficiency rates.

⁶¹ The weighted postsecondary efficiency metric double weights four-year degree attainment relative to two-year degree attainment.

⁶² Ibid.

⁶³ Bell and Blanchflower, *Young People and the Great Recession* (2011).

⁶⁴ See Baltes et al., "Flexible and Compressed Workweek Schedules" (1999); Dalton and Mesch, "The Impact of Flexible Scheduling on Employee Attendance and Turnover" (1990); and McGuire et al., "Flexible Work Arrangements: The Fact Sheet" (2010),

⁶⁵ Porter, "The Payoff in Delaying Retirement" (2013).

⁶⁶ Pew Research Center, *Millennials* (2010).

⁶⁷ Ibid.

⁶⁸ Ibid.

Appendices



Appendix A: Methodology

This report primarily relies on labor market data from the March supplement to the Current Population Survey (CPS) fielded annually by the U.S. Census Bureau for the Bureau of Labor Statistics. Employment data (including full-time and part-time analysis), labor force participation, earnings, race, ethnicity, and educational attainment by various age groups (see individual charts and tables for age groups used in each particular analysis) have been analyzed for this report and major findings are presented in charts and tables.

In this report, earnings are analyzed based on annual income from salary and wages for the previous year reported in the March CPS. Earnings are analyzed and presented in the year in which they were reported in the survey, not in the reference period. The earnings analysis is limited to individuals who are employed at the time of the survey and had earnings during the reference period (income and wages greater than zero).

Integrated Public Use Microdata Series (IPUMS) data from U.S. Census Part B and American Community Survey (ACS) was utilized for occupational group analysis for younger and older workers, as well as for analysis of most common occupations for young workers in Part 3 and changes in most common occupations for young workers between 1980 and 2010 in Appendix B. The modified 1990 OCC codes generated by the Minnesota Population Center (MPS) at the University of Minnesota in IPUMS data were used for cross-time comparisons.

The geographic analysis of young workers' employment rates by metropolitan area in Part 3 also utilizes American Community Survey (ACS) data from Integrated Public Use Microdata Series (IPUMS). Young adults' (ages 21 to 30) population of 200,000 is the cutoff to define large metropolitan areas.

The number of job openings from retirements per young person presented in Part 4 is based on change in labor force participation rate between adults 55 to 64 and adults 65 to 74. The number of job openings due to retirements is calculated by multiplying the 55- to-64-year-old civilian population by the change in the share of adults not in the labor force between 55- to-64 and 65- to-74 age groups. This analysis does not account for cohort mortality between ages 55- to-64 and 65-to-74. In other words, as a cohort of workers moves into the later age group, replacement job openings can arise due to retirements and due to mortality. This analysis only considers the impact of retirements. Thus, the numbers presented in Figure 4.2 are conservative estimates, and the total number of openings from retirements and mortality will likely be larger. The ratio of job openings created by retirements to young people (or per young person) is calculated by dividing the number of replacement job openings generated due to retirements by the population of young adults (ages 18 to 29). Note changes in population size of 18- to 29-year-old cohort and 55- to 64-year-old cohort due to immigration, emigration, and institutionalization are not accounted for in this analysis.

The postsecondary education efficiency ratings are calculated by dividing a country's tertiary attainment rate for 25- to 34-year-olds from Table A1.3a of Organization for Economic Cooperation and Development (OECD) *Education at a Glance 2012* publication by the share of GDP spent on tertiary education from Table B2.3 of the same publication. The resultant measure indicates the postsecondary attainment rate a country attains for each percentage point of GDP it spends on postsecondary education. The "weighted postsecondary efficiency rating" metric is similar to the "postsecondary efficiency rating" metric, except that it double weights Tertiary Type A education (four-year degrees) relative to Tertiary Type B (two-year degrees). Specifically, a country's Tertiary B attainment is added to two times the country's Tertiary A attainment, then divided by postsecondary spending.

Appendix B: Detailed Occupational Changes for Young Adults between 1980 and 2010

Table B1 shows a list of occupations that were among the 25 most common occupations for young men in 1980, but have declined in the decades since. The table represents a dramatic change in the occupations young men have access to: 20 out of the top 25 most common occupations in 1980 have declined, in spite of population growth. The occupations that declined the most were in the blue-collar occupational field: freight, stock, and materials handler (-98%); production supervisor (-81%); and machinist (-76%). High-paying managerial/administrative jobs (-52%) and accountancy jobs (-21%) have also declined for young men.

Common occupations for young men (18-29) in 1980 that have declined			
Occupation	Employment (000s)		Change, 1980-2010 (%)
	1980	2010	
Freight, stock, and materials handler	190	<5	-98
Production supervisor or foreman	300	60	-81
Machinist	170	40	-76
Farmer (owner and tenant)	160	50	-68
Salesperson	810	300	-63
Welder and metal cutter	270	100	-62
Machine operator	520	210	-60
Assembler of electrical equipment	340	140	-57
Manager and administrator	700	340	-52
Military	1,000	540	-46
Truck, delivery, and tractor driver	900	490	-46
Automobile mechanic	370	200	-45
Carpenter	420	240	-43
Shipping and receiving clerk	190	120	-39
Plumber, pipe fitter, and steamfitter	150	90	-36
Janitor	440	310	-30
Mechanic and repairer	170	120	-30
Farm worker	280	220	-22
Accountant and auditor	190	150	-21
Electrician	180	150	-18

Table B1. In 1980, young men commonly worked in blue-collar occupations, but many of those jobs have disappeared over the past 30 years.

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

Table B2 shows occupations that have grown substantially over the past three decades and are now among the 25 most common occupations where young men are concentrated. There are 59 times as many young men working as retail sales clerks in 2010 as there were in 1980 and nine times as many customer service representatives. Most of the most common jobs young men are working in today are in the sales and food/personal service fields. Occupations outside these fields that have grown include computer systems analyst/computer scientist, teacher, and computer software developer. Although young men's access to blue-collar occupations has declined overall, jobs for construction laborers (41% growth) and non-construction laborers (31% growth) remain commonplace and have grown over the past three decades.

Table B2. Many of the most common occupations young men work in today are in low-wage retail and food/personal service occupations.

Common occupations for young men (18-29) in 2010 that have grown			
Occupation	Employment (000s)		Change, 1980-2010 (%)
	1980	2010	
Retail sales clerk	10	590	5,800
Customer service representative, investigator and adjuster, except insurance	30	310	933
Computer systems analyst and computer scientist	40	270	575
Waiter/waitress	100	350	250
Teacher	40	150	275
Cashier	150	500	233
Gardener and groundskeeper	130	380	192
Waiter's assistant	70	190	171
Stock and inventory clerk	160	430	169
Cook	310	780	152
Food prep worker	120	280	133
Computer software developer	90	190	111
Guard, watchman, doorkeeper	140	200	43
Construction laborer	290	410	41
Supervisor of sales jobs and proprietor	270	380	41
Laborer outside construction	450	590	31

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

Table B3 shows occupations that were among the 25 most common occupations for young women in 1980, but have declined in the decades since. Nearly one million fewer young women are working as secretaries today as in 1980, despite population growth. Young women's access to office support jobs that involve repetitive tasks, such as typists (-81%), computer and peripheral equipment operators (-92%), and data entry keyers (-59%) has declined substantially. The share of young women working as salespersons has declined by 71 percent.

Common occupations for young women (18-29) in 1980 that have declined

Occupation	Employment (000s)		Change, 1980-2010 (%)
	1980	2010	
Textile sewing machine operator	220	10	-95
Computer and peripheral equipment operator	130	10	-92
Typist	310	60	-81
Assembler of electrical equipment	280	60	-79
Bookkeeper and accounting and auditing clerk	500	120	-76
Salesperson	720	210	-71
Machine operator	210	60	-71
Secretary	1,460	510	-65
Data entry keyer	170	70	-59
General office clerk	510	230	-55
Manager and administrator	390	190	-51
Secondary school teacher	150	90	-40
Licensed practical nurse	140	90	-36
Bank teller	250	180	-28
Registered nurse	400	330	-18
Military	120	100	-17

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

Table B3. Sales and basic office jobs were commonly held by young women in 1980, but have declined in the years since.

Table B4 shows occupations that have grown substantially over the past three decades and are currently among the 25 most common occupations held by young women. There are 34 times as many young women working as retail sales clerks today as there were in 1980 and 16 times as many dental laboratory and medical appliance technicians. Young women have also gained traction in sales supervisor and teaching roles, but most commonly work in healthcare support and food/personal service occupations.

Table B4. The occupations young women now commonly enter have shifted to retail, healthcare, education, and food/personal service.

Common occupations for young women (18-29) in 2010 that have grown			
Occupation	Employment (000s)		Change, 1980-2010 (%)
	1980	2010	
Retail sales clerk	20	700	3,400
Dental laboratory and medical appliance technician	10	170	1,600
Customer service rep, investigator and adjuster, except insurance	70	520	643
Teacher	60	320	433
Personal service occupation	40	190	375
Waiter's assistant	40	160	300
Supervisor of sales jobs and proprietor	130	350	169
Kindergarten and earlier school teacher	60	160	167
Food prep worker	90	220	144
Health aide, except nursing	100	230	130
Child care worker	210	460	119
Cashier	650	1,180	82
Nursing aide, orderly, and attendant	400	660	65
Receptionist	230	370	61
Hairdresser and cosmetologist	150	240	60
Cook	230	350	52
Housekeeper, maid, butler, steward, and lodging quarters cleaner	120	180	50
Waiter/waitress	600	870	45
Accountant and auditor	150	200	33

SOURCE: GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE ANALYSIS OF U.S. CENSUS AND AMERICAN COMMUNITY SURVEY DATA (IPUMS), 2010

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