

Opportunity, Work, and the Wayfinding Decade

Report 1 of the MyWays Student Success Series



The MyWays™ Student Success Series

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Visual Summary
Introduction and Overview

Part A: Adolescence in an Age of Accelerations

Summarizes specific real-world realities and conditions confronting today's young people.



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About this report

Report 1, *Opportunity, Work, and the Wayfinding Decade*, traces the growing opportunity gap in this country and examines employment challenges and labor market shifts that have transformed the journey from high school to gainful employment into a highly complex and risky wayfinding decade for today's youth; it concludes with four key takeaways for next generation educators.

Report 1 is the first of five reports in Part A of the MyWays Student Success Series. **Part A, “Adolescence in an Age of Accelerations,”** analyzes the real-world changes and conditions that are most acutely impacting young people and outlines key developmental tasks of the adolescent years.

The *MyWays Student Success Series* examines the through-line of four essential questions for next generation learning and provides research and practice-based support to help school designers and educators to answer these questions. The series consists of 12 reports organized into three parts, plus a Visual Summary and Introduction and Overview.

The **primary researchers and authors** of the *MyWays Student Success Series* are Dave Lash, Principal at Dave Lash & Company, and Grace Belfiore, D.Phil., Principal Consultant at Belfiore Education Consulting.

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REPORT 1

Opportunity, Work, and the Wayfinding Decade

“With millions of jobs lost and experienced workers scrambling for every available position — America’s young people stand last in line for jobs.”

—Annie E. Casey Foundation¹

As this report will show, when our children leave high school today, they slam into the worst under-30 employment prospects since the Great Depression. In addition, while employers increasingly expect prospective employees to have postsecondary education, its cost is escalating and its financial rewards are uncertain.

Report 1 is the first of five reports in Part A of the *MyWays Student Success Series* in which we explore “**Adolescence in an Age of Accelerations.**” We begin by tracing the diminishment of American opportunity through hard work, and then examine the unprecedented employment challenges faced by today’s young people. Next, we summarize the “brawn to brains” shift in the labor market, which is shrinking and restructuring the middle-skill labor sector — the very sector that young people have historically relied upon to get their start. For almost all students, these changes have transformed the journey from high school to gainful employment into a complex and risky *wayfinding decade* for which few are prepared. Furthermore, for low-income students and students of color, these changes — together with significant and growing gaps in postsecondary attainment — are dramatically widening the opportunity gap. We conclude Report 1 with four key takeaways for next generation educators.

Report 2 examines the labor market and the *5 Roadblocks to Bootstrapping a Career*. Report 3 outlines trends in postsecondary education and the *5 Decisions in Navigating the Work/Learn Landscape* and Report 4 studies the importance of social support and relationships and the *5 Essentials in Building Social Capital*. Finally, Report 5 outlines key adolescent developmental tasks in *Preparing Apprentice-Adults for Life after High School*. Together, these reports summarize our research on the first of the MyWays Through-line questions: *Why the urgency to change, and what are the real-world conditions that our students will need to address?*

The resulting profile of the world today, together with other student-success research, drove the development of the MyWays Student Success Framework and its 20 competencies. Our goal was to meet



Key reading

Thank You for Being Late: An Optimist’s Guide to Thriving in an Age of Accelerations by Thomas Friedman

Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century from the Harvard School of Education

Closing the College Gap: A Roadmap to Postsecondary Readiness and Attainment from Civic Enterprises and the Everyone Graduates Center

two critical societal needs: **1) the need to rekindle upward economic mobility** in the face of troubling economic pressures, and **2) the need to address the developmental and cultural challenges of transitioning from childhood to adulthood** in an era of unprecedented change.² The resulting competency framework is described in **Part B, “Broader, Deeper Competencies for Student Success,”** a second group of reports that includes an overview of the MyWays Student Success Framework (Report 6) and reports on each of the four MyWays domains (Reports 7–10). Finally, **Part C, “Redesigning the Learning Experience for the MyWays Competencies”** explores work being done across the country to reimagine and reinvent the learning design (Report 11) and assessment design (Report 12) required to bring broader, deeper competencies into educational practice.

With enormous stakes for youth and society, the future of “equal opportunity” may largely be determined by the architects of next generation learning systems and how innovative those systems are in helping young people develop the broader, deeper life competencies we describe.

Equal opportunity: Can we rebuild it?

“The road to wealth, to honor, to usefulness, and happiness, is open to all, and all who will, may enter upon it with the almost certain prospect of success.”³

—McGuffey’s Reader, 1843
America’s first national “textbook”

For most of the past century, America’s social mobility was the envy of the world. Bountiful natural resources, technological inventiveness, free public education, and the highest level of high school attainment in the world produced a rising tide: a growing economy, a rising quality of life for most Americans, and unparalleled opportunities for hard-working families and immigrants to prosper well beyond their circumstances.⁴ As Robert Putnam notes in his extraordinary book, [*Our Kids: The American Dream in Crisis*](#), upward mobility during the 20th century galvanized one of our most universally held American values:

About 95 percent of us endorse the principle that “everyone in America should have equal opportunity to get ahead,” a broad consensus that has hardly wavered since opinion surveys began more than a half century ago.⁵

Or, as former Federal Reserve chair Ben Bernanke states:

A bedrock American principle is the idea that all individuals should have the opportunity to succeed on the basis of their own effort, skill, and ingenuity.⁶



The sad truth is that the path to prosperity — or even a basic, stable existence — is increasingly out of reach for many American families and youth. Following an inflection point that occurred around 1970,

mobility for low- and middle-income Americans has deteriorated — a trend that led social activist Van Jones to caution: “We should not be lying when we tell our children, ‘You can make it if you try.’”⁷

Today’s labor market dynamics and the roadblocks currently confronting under-30s have their roots in structural changes that began more than 50 years ago. Indeed, the 1970s connect two decidedly different half-centuries — a contrast noted by economic historians Claudia Golden and Lawrence Katz and many others.⁸ Focusing on children’s life chances, for example, Greg Duncan and Richard Murnane summarize that shift as follows:

Americans want to believe that ours is a land of opportunity, where no matter what a person’s starting point, those who work hard — and their kids — can “make it.” For much of the twentieth century, economic growth made that dream a reality for generations of Americans. This was particularly evident in the thirty years following the end of World War II, when both the economy and the incomes of families at the top and the bottom of the income ladder doubled in size.

Fueling much of this growth was an increasingly educated work force. Average schooling increased by six years between 1900 and 1970, with growing numbers of children completing more education than their parents. This, coupled with technological advances that benefited both high- and low-skilled workers, led to widely shared increases in living standards and intergenerational mobility.

But storm clouds began to gather in the 1970s. In contrast to the first three-quarters of the twentieth century, the last quarter saw computer-driven technological advances that rewarded skills that only the most educated Americans possessed. Moreover, many manufacturing jobs began to be outsourced to low-wage countries. These trends, continuing into the twenty-first century, have translated into substantial growth in the wages of college graduates, no growth in the wages of high school graduates, and falling wages for high school dropouts. As a consequence, the living standards of children in higher-income families have risen while the incomes of low-income children have stagnated or even declined.⁹

As we now describe, the effects of these technological advances are felt most acutely by under-30s — especially low-income students and students of color.

Today’s rough-and-tumble passage to the world of work

“Everyone should be concerned about this new environment where college appears to be necessary for a child’s future, increasingly expensive, but also increasingly risky in terms of career prospects.”

—Peter Cappelli, *Will College Pay Off?*¹⁰

Fifty years ago, a bachelor's degree likely led to a secure long-term job, participation in an employer training program, and healthy wage increases. By contrast, despite a meaningful wage premium over high school graduates, today's college graduates face significant unemployment and underemployment, the elimination of most formal employer training, and reduced job security. Today's employers are more likely to invest in technology and automation than employee development; hire and fire based on short-term needs; and look for candidates who already have the skills and work experience to perform immediately. "In the process, they are pushing the problem of getting job skills onto the students," says Cappelli, "and the students are not doing very well at it."¹¹

The gap in employment between the young and all working-age adults — roughly 15 percentage points — is the widest in recorded history.

—Pew Research Center

Cappelli is director of the Wharton School's Center for Human Resources and author of two books that provide important insights for next generation educators and youth advocates: *Will College Pay Off?* and *Why Good People Can't Get Jobs*. In these readable books, written for general audiences, he traces the sweep of structural shifts in labor demand and supply, education and training, and hiring practices.

Cappelli's work, and that of other economists and researchers studying labor market trends, reveals that these structural shifts — exacerbated by the Great Recession — are impacting under-30s disproportionately. They have become canaries in the mineshaft of a global job-shedding era. As a result, patterns of education, employment, and income are shifting in new, less labor-friendly directions.

The employment crisis among under-30s

Only half of young people age 16 to 24 held jobs in 2016, the lowest level since World War II.¹² In his 2015 investigation in *The Atlantic*, "*A World Without Work*," journalist Derek Thompson highlights the under-30 crisis:

Six years into the recovery, the share of recent college grads who are "underemployed" (in jobs that historically haven't required a degree) is still higher than it was in 2007 — or, for that matter, 2000. And the supply of these "non-college jobs" is shifting away from high-paying occupations, such as electrician, toward low-wage service jobs, such as waiter. More people are pursuing higher education, but the real wages of recent college graduates have fallen by 7.7 percent since 2000. ***In the biggest picture, the job market appears to be requiring more and more preparation for a lower and lower starting wage.*** The distorting effect of the Great Recession should make us cautious about over-interpreting these trends, but most began before the recession, and they do not seem to speak encouragingly about the future of work.¹³ [emphasis added]

According to the Pew Research Center, job losses experienced by under-30s are part of long-term trends and not simply the result of higher college enrollment or the Great Recession.¹⁴ What is particularly

alarming is that impacts on minority under-30s, even minority college graduates, are much worse than for their white counterparts. Among young high school graduates of color, unemployment rates have exceeded 20% ever since the recession.¹⁵

The under-30 employment crisis is a global phenomenon attracting concern from the United Nations, the Organisation for Economic Co-operation and Development (OECD), the International Labor Organization, the US Chamber of Commerce, United Way Worldwide, and other organizations. By one account, global unemployment among youth is three times higher than among adults. According to *The Economist*, youth comprise only 17% of the world's population, but 40% of the world's unemployed. The problem is affecting youth in both developed and developing countries; in Spain and Greece, for example, both Eurozone nations, more than 50% of youth are unemployed.¹⁶

In the US, despite a declining national unemployment rate, Pew emphasizes that youth employment indicators are at historic lows:

Since 2000, the share of young adults ages 18 to 24 currently employed (54%) has been its lowest since the government began collecting these data in 1948. And the gap in employment between the young and all working-age adults — roughly 15 percentage points — is the widest in recorded history. In addition, young adults employed full-time have experienced a greater drop in weekly earnings (down 6%) than any other age group [from 2007 to 2012].¹⁷

College is no longer a safe harbor

Throughout the recession, we heard that unemployment for those with bachelor's degrees never exceeded 5%, while the overall unemployment rate was twice as high. However, this was not true for younger college graduates (age 21–24) of whom 7.4% were unemployed — more than twice the rate of older graduates. In addition, many younger college graduates who do have jobs are underemployed, are working fewer hours than they wish, or are in jobs that do not require a college degree:

A [2013] study by the Center for College Affordability and Productivity found that half of all college graduates are working a job that the Bureau of Labor Statistics suggests requires less than a four-year degree such as retail sales people, cashiers, and restaurant servers. More than one in 3 are working a job that requires no more than a high school diploma including taxi drivers and parking-lot attendants. And the authors of this study suggest that younger college graduates are more likely than older college graduates to be working a job that doesn't require a college degree.¹⁸

In a survey of recent college graduates conducted by the Federal Reserve, nearly two-thirds reported that they do not have a job closely related to their field of study and one in four felt their education was not worth the financial costs.¹⁹

Recent minority college graduates are even worse off. Unemployment rates for black and Hispanic graduates, for example, are typically double that of white graduates. Analyzing the discrepancy further, a report by the Economic Policy Institute remarks:

It is notable that having an equivalent amount of higher education and... work experience still does not generate parity in unemployment across races and ethnicities.... This suggests other factors may be in play, such as discrimination or unequal access to the informal professional networks that often lead to job opportunities.²⁰

While some of this soft demand for recent college graduates is residual from the recession, the problem runs deeper, leading the Center for American Progress to note: “It is clear that even after a young American walks across the stage to collect a [college] diploma, he or she will not be spared the impacts of the dismal job market.”²¹

Teen employment: evaporating before our eyes

One-third of high school graduates do not enroll in a postsecondary program and, of that number, fewer than half were employed in 2012, which is the lowest employment rate for such high school graduates in the past 50 years.²² Teen employment takes many shapes and serves many purposes; however, these first jobs, no matter how limited and narrow, play a vital role as a window and gateway to adulthood and the workplace. Furthermore, for lower-income teens, earnings are essential to finance postsecondary education. Yet these work opportunities for teens are disappearing rapidly and may reach endangered status without robust intervention.

For urban, low-income teens of color, the odds of having a job — any job at all — now stand at roughly 10%.

—The Brookings Institution

One of the most startling studies on the disappearance of teen employment opportunities was conducted in 2014 by the Brookings Institution under the direction of Andrew Sum:

Employment prospects for teens and young adults in the nation’s hundred largest metropolitan areas plummeted between 2000 and 2011. On a number of measures — employment rates, labor force underutilization, unemployment, and year-round joblessness — teens and young adults fared poorly, and sometimes disastrously.²³

Researcher Nancy Hoffman at Jobs for the Future notes that low-income teens are most severely impacted:

In 2000, 44% of teens [aged 16–19] were in the labor market; by 2011, the figure had dropped to 24%. ***For urban, low-income teens of color, the odds of having a job — any job at all — now stand at roughly 10%.*** In fact, the teens with the highest employment rates come from families earning \$120,000 or more, and the rates are lowest among teens with family incomes below \$40,000, the young people most in need of earning power.²⁴ [emphasis added]

Even teen summer jobs are in peril. Less than a third of teens are now able to find summer employment.²⁵ According to researcher Christopher Smith at the Federal Reserve, the downturn in teen employment began in the 1980s and accelerated in the early 2000s: “during every subsequent recession, the teen employment rate has tumbled and never recovered.” Smith argues that immigration and occupational polarization in the US adult labor market has resulted in increased competition for jobs that teens traditionally held.²⁶

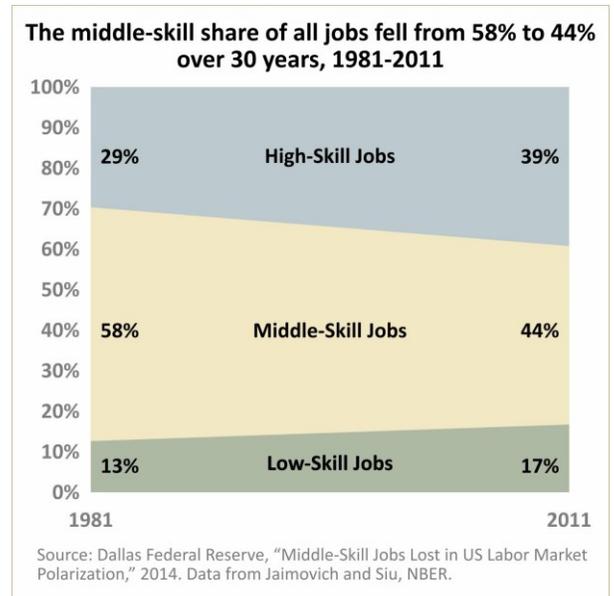
Educational psychologist Lauren Resnick, a proponent of linking school and work, believes that, in addition to these economic forces, there is an important attitudinal explanation:

Most companies are afraid of young people, viewing them as unreliable workers. They would rather hire more mature individuals, those in their upper twenties and, when possible, those who come with some prior history of work. *But there exists in this country no systematic way for most young people to gain the experience that would make them attractive to employers.* So they drift from one short-term minimum-wage job to another, with frequent periods of unemployment in between.²⁷ [original emphasis]

The employment crisis among under-30s is a byproduct of a large structural shift that is altering historical patterns of education, employment, and income — a shift, as many say, from *brawn to brains*.

From brawn to brains: shifting skill levels in the labor market

Throughout our nation’s history, the prosperity of American workers and the rise of the middle class have largely followed an increase in workforce education and skill level.²⁸ However, over the past 30 years, technological change has shifted jobs in two directions: toward high-skill, abstract non-routine work on the one hand and, to a lesser extent, to non-routine manual work (low-skill jobs) on the other. During this time, middle-skill jobs — which often involve routine or replicable work — have been increasingly offshored or replaced by technology. The middle-skill share of all US jobs has fallen from 58% to 44% in the years from 1981 to 2011, while the high-skill job share has grown from 29% to 39% of the total over the same period.

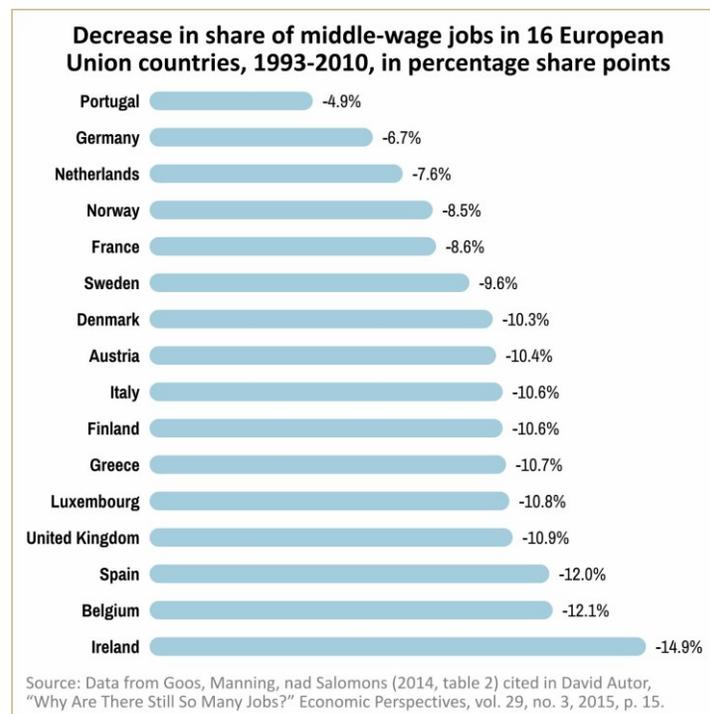


This contraction of middle-skill jobs, which economists call “labor polarization,” is impacting the very positions that previously gave people a foothold in the economy and a path to middle-class living — those jobs being the “brokers, clerks, tellers, cashiers, telemarketers, title examiners, bookkeepers, insurance underwriters, travel agents, technicians...mail carriers, drivers, and cooks.”²⁹ **Today, middle-skill jobs that previously gave many young people their start are those undergoing the greatest transformation.**

In short, additional high-skill jobs are great news for those with the skills and experience to fit employers' needs, but less skilled or less experienced workers face increasingly stiff competition for shrinking employment. MIT labor economist David Autor explains the technological forces at work:

The occupations that have contracted most rapidly as a share of total employment over the last three decades — in particular, clerical, administrative support, sales, production and operative positions — are reasonably well characterized as routine task-intensive: many of the core tasks of these occupations follow precise, carefully codified procedures. Because of exponential declines in the cost of computing power, these tasks are increasingly fallow for automation and hence are reassigned from labor to capital. As workers lose comparative advantage in routine-intensive activities, a greater mass of skills is reallocated towards the tails of the occupational distribution — both towards high skill analytic, reasoning and problem solving tasks and, ironically, towards traditionally low skill, in-person service tasks — thus leading to employment polarization.³⁰

To make the point, Autor shows that all 16 countries in the European Union are experiencing the same pattern (see graph below): roughly a tenth of the workforce shifting out of middle-paying jobs to the high- or low-paying categories between 1993 and 2010. (Researchers have found that “middle-skill” and “middle-wage” jobs correlate closely.³¹) Despite this trend, Autor believes the economy will retain a “significant stratum of middle-skill jobs”³² — jobs that can offer young people that need it an alternative to either a high-skilled job requiring a bachelor’s degree or a low-skill, low-paying job with little future.



Job redesign and why middle-skill jobs remain vital to young people

In addition to declining in number, middle-skill jobs are continually being redesigned and transformed as well — “*pulled up* faster,” as Thomas Friedman says and as shown in the (now ancient but still useful) 2010 CNN video, “The New Blue Collar Workers” ([4m video](#)). In his latest book about the “age of accelerations,” [Thank You for Being Late](#), Friedman emphasizes that every industry is now “computational” and therefore transforming its workforce, requiring that people vying for middle-skill positions have

...more knowledge and education to perform successfully. To compete for such jobs you will need more of the three Rs — reading, writing, and arithmetic — and more of the four Cs — creativity, collaboration, communication, and [computer] coding.³³

In addition to jobs being *pulled up* faster (requiring new, higher skills), Friedman stresses that every job is being *pulled apart* faster (disaggregated)... *pulled out* faster (automated, outsourced, and offshored)... and *pulled down* faster (made obsolete).³⁴ Furthermore, because change — in this case, job change — is accelerating, Friedman emphasizes that “securing and holding a job requires *dynamic stability* — you need to keep pedaling (or paddling) all the time” to augment and realign your abilities with evolving job requirements and opportunities.³⁵

For numerous young people, an entry-level, middle-skill job is a vital platform from which to build the experience, skills, and education needed to jump to the next level. Each year, for example, one in every seven middle-skill workers transitions to a high-skill position, according to an analysis by the Federal Reserve Bank of Atlanta.³⁶ This significant job mobility is a testament to the ability of workers to bootstrap their careers! But first they must secure that first job — and the price (and difficulty) of doing so keeps going up. The takeaway for young people and next generation educators? **Getting that first middle-skill job can be a crucial first step to advancement, but these jobs are becoming increasingly hard to find.**

[Pathways to Prosperity: Meeting the Challenges of Preparing Young Americans for the 21st Century](#), published by the Harvard Graduate School of Education in 2011, argues that we can never be competitive as a nation until we move beyond a one-size-fits-all fixation on college; instead, we need to provide multiple options and pathways that offer every student, as a basic minimum, the knowledge and skills needed for jobs that pay middle-class wages. The Harvard study draws on the two “Forgotten Half” studies that describe the worsening circumstances for more than 20 million non-college-bound youth.³⁷ *Pathways* rejects the notion that middle-skill jobs are inherently inferior to those requiring a bachelor’s degree:

In fact, 27 percent of people with postsecondary licenses or certificates — credentials short of an associate’s degree — earn more than the average bachelor’s degree recipient.

....

Given [the] dismal attainment numbers, a narrowly defined “college for all” goal — one that does not include a much stronger focus on career-oriented programs that lead to occupational credentials — seems doomed to fail.³⁸

As we discuss in the next section, education and work experience are an enormous advantage when workforce transformation is afoot, but they are not, by themselves, a defense. All workers — young and old, and at every skill level — need competencies for dynamic stability to continually augment and realign their skills to evolving job requirements and opportunities. The MyWays Project identifies the competencies needed to do so, emphasizing Habits of Success (internal navigation) and Wayfinding Abilities (external navigation), along with broader and deeper Content Knowledge and agile, everyday Creative Know How. See the Part B reports for more information.

We turn now to the education side of the workforce equation.

This is the first cohort of young adults in which more than half have postsecondary degrees or credentials. But this also means that about half do not.

—Closing the College Gap

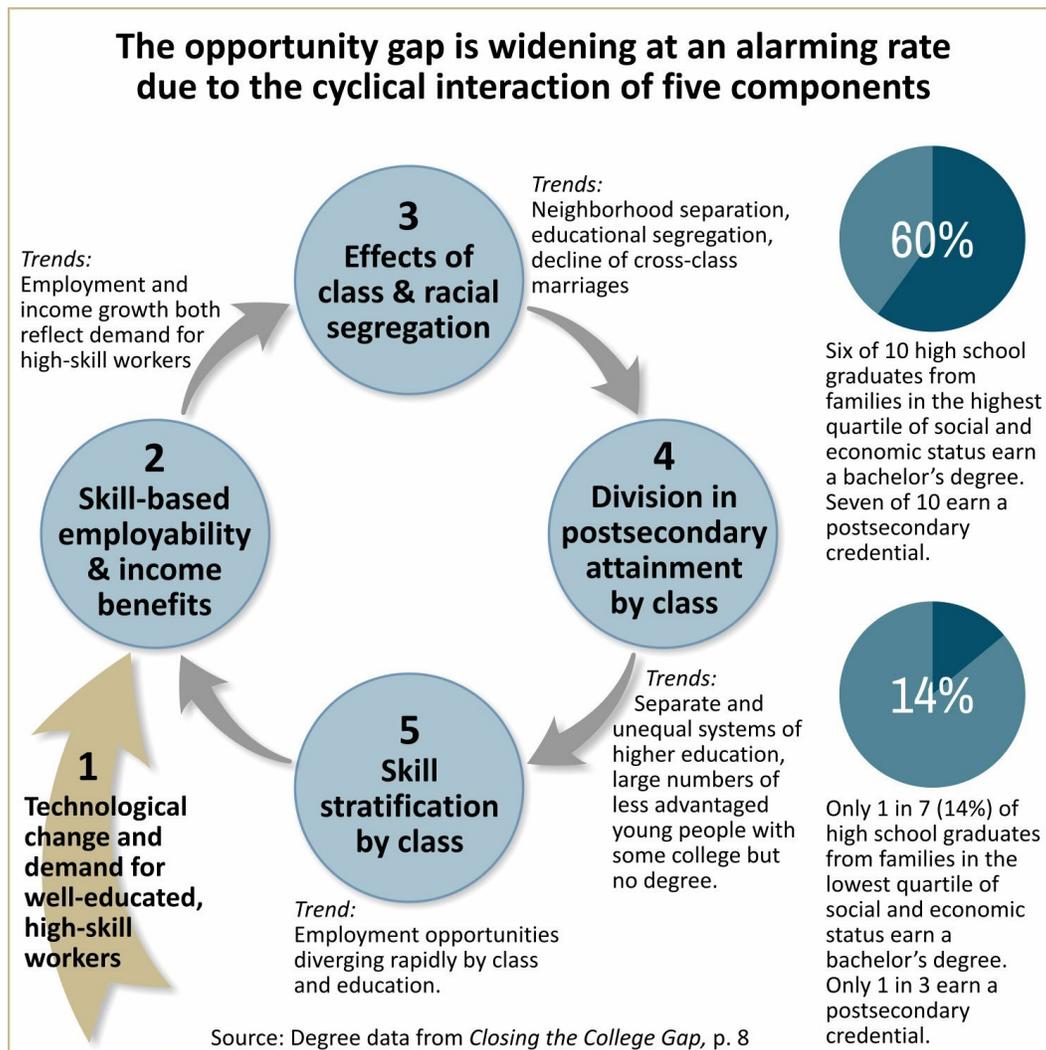
Postsecondary education and the widening opportunity gap

*“Only 14 percent of 2004 high school graduates from families in the lowest quartile of social and economic status earned a bachelor’s degree or higher and 35 percent received a postsecondary degree or certificate. **Thus, among the current cohort of 25- to 34-year-olds, those who came from the most advantaged families earned bachelor’s degrees at more than four times the rate of those who came from the least advantaged families.**” [emphasis added]*

—Closing the College Gap: A Roadmap to Postsecondary Readiness and Attainment³⁹

Although today’s students and parents almost universally accept the importance of at least some postsecondary education, far too few young people are equipped educationally for the labor market’s growing competitiveness. In addition, the most advantaged families are investing heavily in their children’s education, while the least advantaged families face greater challenges with fewer resources. A perfect storm of poor academic preparation, financial pressures, and growing complexity in the postsecondary sector has produced the highest college dropout rate in the industrialized world.⁴⁰ As a result, the opportunity gap faced by the nearly half of young people from low-income families — the gap in employment prospects, economic mobility, and access to the American Dream — is widening at an alarming rate.

To understand the cycle that is amplifying the opportunity gap, almost unchecked, we look at five key components (see graphic below). **First**, technological change continues to generate demand for well-educated, high-skill workers while shrinking the availability of middle-skill jobs in the economy (Report 2). **Second**, workers with more education and skills are increasingly rewarded with relatively greater employability and income despite labor pressures on all workers (Report 3). **Third**, as described by Putnam, these economic benefits combine with other societal forces to deepen class and racial segregation and resulting life outcomes for children — including their academic preparedness and their financial and social resources for pursuing postsecondary work (Report 4). **Fourth**, these class-based differences result in profoundly different levels of postsecondary attainment: for example, only 14% of high school graduates from families in the lowest quartile of social and economic status earn a bachelor’s degree compared to 60% from graduates in the highest quartile. **Fifth**, dramatically different levels of postsecondary education for young people of varying social and economic status translates into skill stratification where more educated, more advantaged young people merge with and perpetuate the cycle, while less educated, less advantaged young people are increasingly impeded by labor market trends.



To better understand the postsecondary attainment patterns contributing to this cycle, we begin with a key 2016 report, *Closing the College Gap: A Roadmap to Postsecondary Readiness and Attainment*, authored by a research team led by Bob Balfanz at Johns Hopkins:

We wanted to take a dispassionate view of how we are actually doing on the key national priority of postsecondary attainment, on the pipeline from high school to postsecondary education, and on the way forward to boost college readiness, access, and persistence in the future. **We find reasons for hope and cause for alarm.**⁴¹ [emphasis added]

Balfanz’s team studied three cohorts: people who were currently 25–34 years old, those currently in postsecondary education or finishing high school, and those currently in grades 1–10.

Closing the College Gap offers the following table and snapshot of how today’s 25–34 year olds compare to older Americans:

Current levels of postsecondary attainment		
	25–34 years old	65+ years old
Associate degree or more	47%	34%
Bachelor’s degree or more	36%	27%

Source: *Closing the College Gap*. 2016.

The current generation of 25- to 34-year-olds has the highest rate of postsecondary degree attainment in the nation’s history and considerably higher levels than earlier generations. Whereas about one-third of 25- to 34-year-olds in the late 1960s and early 1970s earned an associate degree or higher, close to half of today’s 25- to 34-year-olds do so. When you add in high quality certificates, ***this is the first cohort of young adults in which more than half have postsecondary degrees or credentials. But this also means that about half do not.***

Between 2000 and 2014, when this first cohort was finishing postsecondary education, the nation witnessed a 77 percent increase in associate degrees and a 51 percent increase in bachelor’s degrees, with more than one million additional such degrees earned during this period. Women, particularly those from upper-income families, have driven much of the growth in postsecondary attainment, while attainment rates of students of color and low-income students have climbed, but not as steeply.

Despite this progress, significant postsecondary attainment gaps for this first cohort persist: women outpaced men by 9 percentage points in attaining an associate degree or higher; the White-Black attainment gap stands at 15 percentage points; and the White-Latino degree attainment gap remains at 30 percentage points.⁴² [emphasis added]

Most attainment gains are occurring among whites and upper-income families. As the following shows, degree attainment among whites is approximately double that of blacks and Hispanics:

Percent of 25- to 34-year-olds with an associate's degree or higher		
	Associate degree or higher	Gap
Non-Hispanic white	54.7%	
Black	32.3%	22.4
Hispanic	24.7%	30.0

Source: *Closing the College Gap*. 2016.

Furthermore, as the study explains, the gaps are even bigger at the bachelor's degree level and between high- and low-income families:

The Educational Longitudinal Study of 2002 shows that within eight years of high school graduation 60 percent of the students from the high school class of 2004 who came from families with high social and economic status (the top quartile) earned a bachelor's degree or higher and 72 percent received a postsecondary certificate or degree. By contrast, only 14 percent of 2004 high school graduates from families in the lowest quartile of social and economic status earned a bachelor's degree or higher and 35 percent received a postsecondary degree or certificate. ***Thus, among the current cohort of 25- to 34-year-olds, those who came from the most advantaged families earned bachelor's degrees at more than four times the rate of those who came from the least advantaged families.*** Moreover, where nearly three-quarters of those from the most advantaged families earned a postsecondary degree or credential, just a little more than a third from the least advantaged families did so. [emphasis added]

Analyzing census data and two longitudinal surveys that followed young adults in different time periods, Dynarski and Bailey (2011) bring the historical and current trends in postsecondary degree attainment together. They find:

...growing gaps between children from high- and low-income families in college entry, persistence, and graduation. Rates of college completion increased by only four percentage points for low-income cohorts born around 1980 relative to cohorts born in the early 1960s, but by 18 percentage points for corresponding cohorts who grew up in high-income families. Among men, inequality in educational attainment has increased slightly since the early 1980s. But among women, inequality in educational attainment has risen sharply, driven by increases in the education of the daughters of high-income parents.⁴³

Among the second cohort of those currently in postsecondary education or finishing high school, the Balfanz team sees moderate progress: high school graduation rates have risen, driven by Latino and black students, and postsecondary enrollment is also up, including a doubling among Latino students and a near

doubling among black students between 2000 and 2014.⁴⁴ Despite these hopeful signs, the opportunity gap continues to widen as a result of the much higher graduation rates among students from the most advantaged families.

Finally, the study team is most worried about the third cohort of young adults, who are in 1st through 10th grades today:

Without some significant actions all along the postsecondary pipeline, the rising tide of progress being experienced by our second cohort — the 25- to 34-year-olds of 2025 — will ebb. To ensure postsecondary attainment rates continue to rise and opportunity gaps narrow, the nation will need to solve some big challenges: 1) reforming and supporting the approximately 800–1,000 low-graduation-rate high schools in economically and socially isolated areas of the country where disproportionately large numbers of Black and Latino students are still found; 2) providing greater access to postsecondary institutions, particularly in Latino and low-education-attainment communities; and 3) redoubling efforts around postsecondary readiness and persistence for those students graduating with low GPAs. **The quick wins and modest lifts have already been tapped.** To keep postsecondary attainment rates rising, the nation will need to make major commitments and investments to reach and provide opportunity to all students.⁴⁵ [emphasis added]

These data reveal that, even as the nation makes painfully slow progress in raising high school graduation rates and closing achievement gaps at the K-12 level, we have what can only be described as *runaway, widening gaps* at the postsecondary level, driven by the broadly recognized importance of education beyond high school combined with dramatically different postsecondary options that are financially available to students and families in different socioeconomic groups.

[Anthony Carnevale](#) and [David Leonhardt](#) have both written of the profoundly “separate and unequal system of higher education” that exists today. At the 500 top universities, where half of all white students have converged, 82% graduate. In contrast, at open-access colleges, attended by a large portion of students of color and low-income students, just 49% graduate.⁴⁶ We look further at the differences in the postsecondary experiences of the most- and least-advantaged students in Report 3, *5 Decisions in Navigating the Work/Learn Landscape*. The bottom line, however, is that employment opportunities are migrating toward those with greater education and skills, and therefore, toward those in the most advantaged families. Accordingly, **economic mobility is at great risk**, unless society acts to help all students develop not only greater academic preparedness for postsecondary work, but also the knowledge, experience, and competencies to navigate more effectively their individual circumstances as well as the now typically concurrent goals of postsecondary education and early employment.

In fact, most postsecondary students today are “learning while earning,” a practice we examine next.

“Learning while earning” — the student response to the opportunity gap

In *Learning While Earning: The New Normal*, Carnevale and his team at Georgetown’s Center on Education and the Workforce quantify another significant aspect of the opportunity gap today: the preponderance of students pursuing postsecondary credentials while working:

For decades, the popular conception of a college student in this country has been the full-time residential, financially dependent student who enrolls in a four-year college immediately after graduating from high school. But that student has not been the norm at US postsecondary institutions for more than 30 years. Such students exist, but they are greatly outnumbered by working learners: students who balance learning in college with earning a paycheck.

In the United States today, nearly 14 million people — 8 percent of the total labor force and a consistent **70 percent to 80 percent of college students** — are both active in the labor market and formally enrolled in some form of postsecondary education or training.⁴⁹ [emphasis added]

As these findings show, “learning while earning” is, in fact, the new normal — despite the bleak youth employment picture and the danger of work hurting academic performance. The upside is the potential for the right work experiences to help young people validate their worth, gain workplace skills and experience, and accrue coworkers, role models, and mentors. Still, the opportunity gap between the least- and most-advantaged students is widening, and accelerating, during the postsecondary years. A new form of student preparation is needed.

Key findings from *Learning While Earning: The New Normal*

Following is a summary of the Center on Education and the Workforce report⁴⁷:

- **Most postsecondary students are working.** Students are workers, and workers are students. Whenever possible, students work whether they are in high school or college; whether they are rich, poor, or somewhere in between; and whether they are young and inexperienced or mature and experienced.
- **Going to college and working while doing so is better than going straight to work after high school.** Our findings show clearly that students who complete college degrees while working are more likely, over time, to transition to managerial positions with higher wages than people who go straight into full-time work after high school.
- **Working and learning simultaneously has benefits, especially when students work in jobs related to what they study.** Work experience also becomes an asset that working learners carry with them as they enter the full-time job market, accelerating their launch into full-time careers. The jobs that individuals perform are a central part of their identity.
- **Working while attending college hurts disadvantaged students the most.** This is because working learners of lower socioeconomic status are more likely to work full-time and attend under-resourced, open-admission community colleges. (Ready by 21 states: “Studies have shown that students who work more than 20 hours a week often have lower grades, take more time to complete their degrees, and have more mental health problems.”⁴⁸)
- **A significant number are working full-time while in college.** About 40% of undergraduates and 76% of graduate students work at least 30 hours a week. About 25% of all working learners are simultaneously employed full-time and enrolled in college full-time. Adding to their stress, about 19% of all working learners have children.
- **Students are working and taking out more loans to pay for college.** The nation has yet to figure out how to pay for this new stage in the transition from youth dependency to adult independence and family.

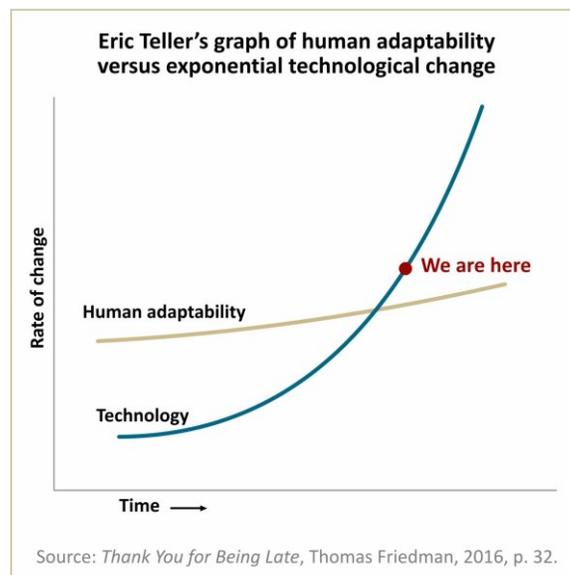
Preparing students for a new phase of life: the wayfinding decade

“Today, the journey from adolescence to adulthood is far more daunting. It takes much longer, and the roadway is filled with far more potholes, one-way streets, and dead ends.”

—*Pathways to Prosperity*⁵⁰

The challenge for next generation education is two-fold: to prepare all students for the rough-and-tumble passage to work and the complexity of today’s postsecondary experience, and to ensure that less advantaged students have the supports and systems they need to have at least a fair — if not equal — opportunity to overcome the disadvantages of their circumstance and compete for a share of the American Dream. At one time, both parts of this challenge could be interpreted in narrow, traditional academic terms. No more. As Thomas Friedman says, “The three largest forces on the planet — technology, globalization, and climate change — are all accelerating at once.” As Robert Halpern observes, “Too many [young people] are caught in a gale of creative destruction that makes it difficult to find individual solutions to changing economic realities.”⁵¹

Let’s consider the implications of these accelerations on students and their teachers. In *Thank You for Being Late*, Friedman shares a sketch by Eric Teller, CEO of the Google X research and development lab:



Teller posits that we are at the “We are here” point where technological change exceeds human adaptability and continues to accelerate. As we describe in the reports that follow, these forces are reverberating through the labor market (Report 2), the postsecondary experience (Report 3), and society’s patterns of relationships and social capital (Report 4). Further, these changes are so profound that adolescence itself will need to evolve and adapt (Report 5).

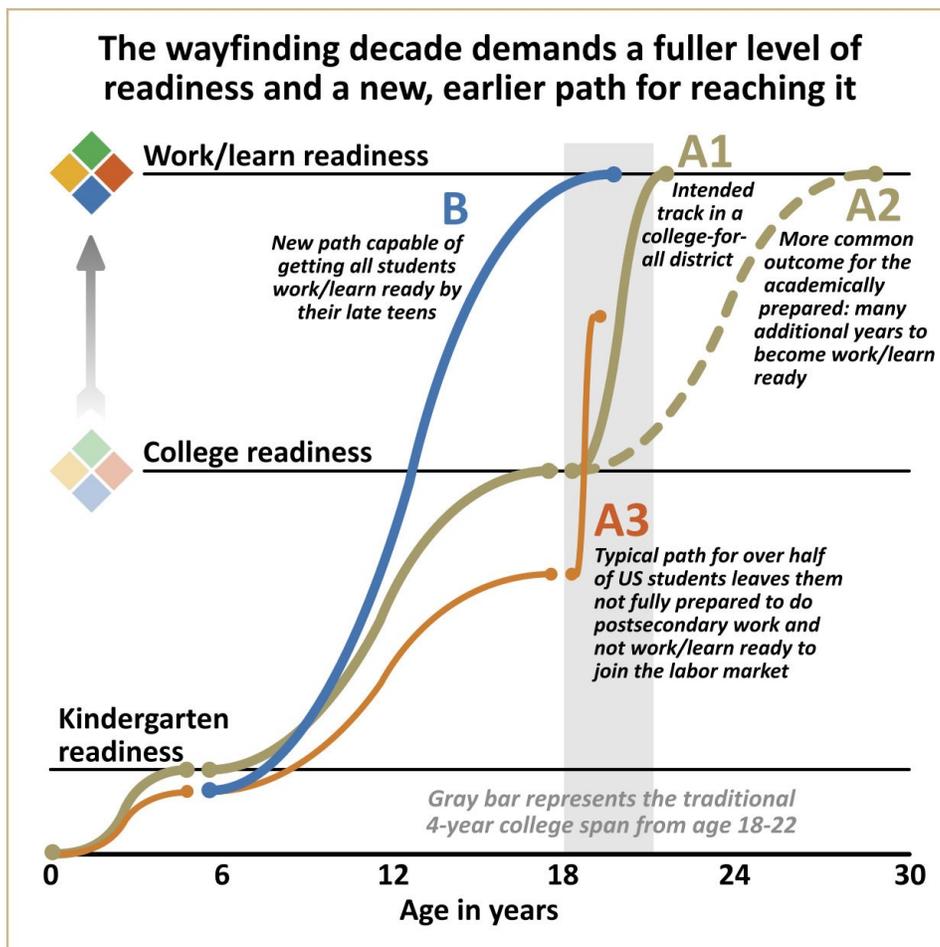
If we cannot slow down technology, globalization, and climate change, our only remaining option is to improve human adaptability by helping individuals, families, and institutions (including schools and all other youth-facing organizations) be more agile, resilient, and entrepreneurial.

The first step, we believe, is recognizing that the *wayfinding decade* between high school and established, successful adulthood is longer, tougher, and less linear than it has ever been. The labor market is constrained and dizzying; half of under-30s will spend considerable time in the gig economy or other short-term, on-demand positions. The postsecondary world is dividing, morphing, and evolving; options are hard to evaluate and compare; most students are working learners; and financial pressures are often disruptive. Navigating this new *work/learn landscape* involves complex, high-stakes, life-defining decisions that begin in high school. Few high schoolers have the life experience or broader, deeper competencies to fully understand, let alone make, these decisions.

The MyWays team coined the terms *wayfinding decade* and *work/learn landscape* to help replace the *college readiness mindset* with a fuller, more complete *work/learn readiness mindset*. The “wayfinding decade” is an intentionally imprecise term with respect to starting age and duration; it differs for each individual according to circumstances, aspirations, and work/learn experiences. Still, common patterns exist. Most schools and districts are organized around a three-part track (see A1 in the diagram below).

The A1 track — this intended scenario for achieving work/learn readiness rarely works

The goal in the first part of this three-part track, from birth to age 5 or so, is *kindergarten readiness* (age-appropriate development and quality early learning). In the second part, from roughly age 6 to 18, the focus is on *college readiness* (academic preparedness and what we might call “college literacy” — that is,



picking colleges, applying, and figuring out finances). Across the country, only a minority of students receive meaningful career-related experiences during this K-12 period. Nevertheless, the assumption seems to be that in the third part of this track, *between age 18 and perhaps 22*, students' early experiences in college or work will allow them to develop the full *work/learn readiness* needed to forge a gainful career from their postsecondary and early employment options. A career-oriented college program, fortuitous part-time job, or an extracurricular with real-world experience might foster some readiness, but too often lessons learned come from the school of hard knocks.

The A2 extended track — for many students, work/learn readiness may take another decade

For many students inadequately prepared before they leave high school for navigating postsecondary education and the labor market, the wayfinding decade extends into their late twenties or early thirties. Despite most postsecondary students being working learners, the years in college and immediately following are often a struggle to assemble the work experience, skills, credentials, and social connections that translate into a fruitful career path. Of course, finding a fit takes time even with the best preparation, but too often students lose precious time in unproductive postsecondary programs and dead-end jobs.

The A3 breakdown — over half of US students fall behind and face increasingly poor options

The A1 and A2 tracks of most K-12 systems have a much more catastrophic variant: they are both inaccessible to the majority of all public school students who fall behind and end up traveling a much rougher path. These students falter due to inadequate preparation in two key readiness areas. First, due to poverty or personal circumstance, many students lack kindergarten readiness when they enter the school system. Second, in K-12, their level of academic preparation and college literacy leave them far short of college readiness; indeed, according to *Closing the College Gap*, only one-third of US students are academically prepared for college.⁵² On this A3 path, high school ends with little or no work/learn readiness, and these students are thrust, by necessity, into the heat of the work/learn landscape, attempting to figure out what to do next. *Can they find work? Should they enroll in a four-year college, a community college, or a certificate program? How will they support themselves and advance their skill building? Who can they call on for support, advice, connections, and resources?*

Students on this A3 path struggle to make life-defining decisions at age 16, 18, or 20. And, often, it is only when they fail that society pays attention. In this age of accelerations, the status quo for more than half our students is a national disaster. A 2009 study by McKinsey & Company found that this underutilization of human potential imposes “the economic equivalent of a permanent national recession.”⁵³

The new, next generation B track — a call to get all students work/learn ready by their late teens

As a nation, we need to migrate, quickly, to a new track — something like the B track in the diagram — that can get all students work/learn ready by their late teens. A shift to broader, deeper competencies like those in the MyWays Student Success Framework (Report 6) is part of the solution, but we also need to better understand work/learn readiness today (as opposed to what it looked like 10, 20, or 30 years ago), reduce adolescent isolation (Report 5), and provide more authentic, real-world experiences (Report 11). To help educators with this understanding, the MyWays team developed what we call the *5-5-5 Realities*.

Understanding work/learn readiness through the 5-5-5 Realities

The worsening environment for young college graduates and nongraduates alike injected the MyWays Project with a special urgency to go beyond loosely defined “21st century skills” and to dig into the specific trends and challenges young people are facing — to clearly describe the real-world conditions that our students will need to address (see question 1 of the four-part MyWays Through-line). We distilled our research into the 5-5-5 Realities, highlighting for educators (and others, including students) 15 key factors and trends that all young people are likely to confront during their wayfinding decade. We define being “work/learn ready” as understanding these Realities and being equipped with the competencies and experience needed to address them. The 5-5-5 Realities are as follows:

5 Roadblocks to Bootstrapping a Career (Report 2)

As employers pull back on developing human talent — investing instead in technology, automation, and an on-demand workforce — young workers face an increasingly challenging labor market. Job hunting has also grown increasingly complex as algorithmic, online hiring systems seek “perfect” candidates with pre-existing experience and competencies.

5 Decisions in Navigating the Work/Learn Landscape (Report 3)

The age of accelerations is transforming postsecondary education, with a tripling in the number of career fields, a doubling in colleges and universities, and a five-fold increase in postsecondary programs of study. Costs and student debt are skyrocketing. Most students are working learners, and most need to build social capital to gird their work/learn journey.

5 Essentials in Building Social Capital (Report 4)

Opportunities are firmly attached to relationships. While social capital is traditionally weak among young people in general, growing class segregation is creating a social capital crisis for less advantaged students. A key part of the wayfinding decade is securing social support, developmental relationships, and connections to resources through five types of social capital: *caring friends & adults, near-peers & role models, mentors & coaches, networks & weak ties, and resources & connectors.*

As the graphic below shows, to achieve better outcomes for young people — especially better degree attainment and gainful employment — we must target improved education, pathways, and opportunities using the 5 Roadblocks, 5 Decisions, and 5 Essentials described in the following reports. While these Realities apply to every young person, they are doubly critical for low-income students and students of color, and they are the leading causes of the nation’s widening opportunity gap. We hope these Realities will also become a useful checklist against which to evaluate and compare programs and approaches in next generation learning.



Finally, the research behind the 5-5-5 Realities led to an examination of American adolescence today and the nature of the passage from childhood to adulthood in the current age of accelerations. That inquiry led us to Robert Halpern’s remarkable book, *Youth, Education, and the Role of Society*, and to the contributions of Reed Larson, Daniel Siegel, Laurence Steinberg, and Robert Epstein, as well as the Forum for Youth Investment, the Center for Promise (the research arm of America’s Promise), Jobs for the Future, and others. The consensus among these scholars is that adolescence as an institution of American society is adapting and evolving too slowly in response to the rapid changes in the world of work and learning. ***We need to reduce adolescent isolation from the adult world; respect and support young people as apprentice-adults; and provide them with the environments and experiences needed to grow, mature, and navigate the adult learning and working world.*** Accordingly, we dedicate the final report of Part A, “Adolescence in an Age of Accelerations,” to adolescence itself:

Preparing Apprentice-Adults for Life after High School (Report 5)

Research on the teenage brain reveals adolescence as a period of incredible growth and potential — in the brain and in the person as a whole. As a result, we examine developmental tasks that are key to a healthy life and to successfully navigating the work/learn landscape: *reclaiming the potential of the adolescent years; finding self, strengths, and direction; acquiring capability and agency; overcoming trauma and personal challenges; and building relationships and social capital.*

Young people in the age of accelerations will not have an easy journey during their wayfinding decade, but if properly prepared, extraordinary opportunities will emerge.

Connecting the 5-5-5 Realities to the MyWays competencies

The MyWays Student Success Framework repeatedly highlights the challenges of the 5-5-5 Realities and the wayfinding decade. More than any other competency framework we know, it advocates a specific set of Wayfinding Abilities to successfully navigate work, learning, and life opportunities and choices. However, Wayfinding Abilities do not stand as independent skills; instead, educators should consider the entire set of 20 MyWays competencies and the ways Wayfinding Abilities are complemented by and dependent upon personal Habits of Success, solution-oriented Creative Know How, and deeper Content Knowledge.



Brief summaries of the MyWays framework and competencies, and their research origins, can be found in two documents: the *Visual Summary of the MyWays Student Success Series* and the *Introduction and Overview of the MyWays Student Success Series*.

A full description of the MyWays framework and competencies is provided in **Part B, “Broader, Deeper Competencies for Student Success,”** which answers the second question in the MyWays Through-line: *WHAT does success look like for our students in an age of accelerations?* Part B is comprised of Report 6, *Welcome to the MyWays Student Success Framework* as well as individual reports on each of the four competency domains (Reports 7–10), which discuss the importance of each domain, its competencies and key principles, the state of play in the field, and educator resources. For each of the 20 competencies, a one-page primer is also provided.

The reports in **Part C, “Redesigning the Learning Experience for the MyWays Competencies,”** discuss how to bring broader, deeper competencies into educational practice through more authentic, real-world learning, focusing on key constructs for learning design and assessment design. Report 11 examines *Learning Design for Broader, Deeper Competencies*, including utilizing Whole Learning at a junior level, harnessing the Wider Learning Ecosystem, and applying research-based Levers for Capability and Agency. Report 12 looks at *Assessment Design for Broader, Deeper Competencies* including two needed paradigm shifts and five assessment strategies. These two reports summarize our research findings and constructs with respect to the third and fourth questions in the through-line: *HOW can our design for learning help students develop the broader, deeper competencies?* And: *HOW do we gauge student progress in developing these competencies?*

Key takeaways for next generation educators

At the end of each report in Part A, we briefly recap the report and offer several key takeaways.

Takeaway 1: The vast majority of real-world conditions that today’s young people face in the wayfinding decade apply to students of all socioeconomic levels and racial/ethnic groups; however, the severity, timing, and resource needs related to these conditions impact different groups in profoundly different ways. All students need preparation for the 5-5-5 Realities, and all students need broader, deeper competencies such as those outlined in the MyWays Student Success Framework. This is equally true for gifted, affluent, college-bound students and students from poor, disadvantaged families who have to go straight to work or consider a short-term certificate program. For millions of disadvantaged students, the hurdles are much higher, and the consequences of being unprepared for these Realities are much greater.

Takeaway 2: We need to pivot from a narrow “college-for-all” mentality to an “invest in skills” approach aimed at equipping every student with a reachable employment opportunity and the competencies they need to direct their own lifelong learning. The tug-of-war between “college-bound” and “career and technical education” should be put aside. Students need both. Work experience is critically important to all, and a college degree is no longer the “golden ticket” that all but guarantees stable employment and a middle-class income. The old thinking, as Thomas Friedman says, needs to change:

We go to school for twelve or more years during our childhoods and early adulthoods, and then we’re done. But when the pace of change gets this fast, the only way to retain a lifelong working capacity is to engage in lifelong learning.⁵⁴

Recapping Report 1: Opportunity, Work, and the Wayfinding Decade

This report opens with a question: *Equal opportunity: Can we rebuild it?* Starting with a historical view, we trace interconnected shifts in education, technology, and employment and used these broad trends to better understand the severe employment crisis among young people today — a crisis that America shares with other countries and that appears to be much more structural than cyclical.

Next, we examine the shift from “brawn to brains” more closely, focusing on the falling share of middle-skill jobs that have been the gateway to the middle class for more than a century. A key point: Today, the very jobs that have given many young people their start are those undergoing the greatest transformation. Looking more closely at middle-skill jobs, we highlight that it is not only the number of middle-skill jobs that are affected, but also that the jobs themselves are being reshaped as the role of humans and machines realign based on technological innovation.

Finally, we turn to the supply side of the employment equation and the widening opportunity gap that is occurring due to postsecondary attainment differences among better-off and disadvantaged groups.

Takeaway 3: No American institution currently “owns” the task of taming the work/learn landscape beyond high school. It can be a wild, dangerous place, and the chaos and confusion is causing irreparable harm to countless young people. As we noted earlier, the United States has the highest college dropout rate in the world, and our underutilization of human potential imposes the economic equivalent of a permanent recession. Education, business, and government institutions must work together to envision and create education, pathways, and opportunities appropriate to the labor market, postsecondary programs, and social capital needs and patterns in their regions. We use the term “pathway” broadly to describe structures and systems that help guide young people’s transitions through the work/learn landscape and will return to this theme in later reports.

Takeaway 4: Schools and districts cannot do this work alone, but they must be the leaders and catalysts for the kind of collective initiative the work requires. Innovation is occurring on two fronts: the efforts of individual schools and organizations, and the efforts of groups of organizations that are working together. There are many terrific examples of both, and we describe some of them throughout these reports. As the primary institution in students’ lives until they reach age 18 and begin the wayfinding decade, schools can play a pivotal role in driving both individual and collective innovation. A logical starting point is determining what changes in education, pathways, and opportunities students need before they turn 18, and what changes in opportunity pathways they need once they have left the K-12 system and are largely independent actors in the work/learn landscape.

Next, in Report 2, we cover today’s labor market and the *5 Roadblocks to Bootstrapping a Career*.

Endnotes for Report 1

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² Howard Gardner (in *The Disciplined Mind*) argues that students “[n]eed an education that is deeply rooted in . . . what is known about the human condition, in its timeless aspects, and what is known about the pressures, challenges and opportunities of the contemporary and coming scene. Without this double anchoring, we are doomed to an education that is dated, partial, naïve, and inadequate.” Quoted in an article by the RAND Corporation’s Anna Rosefsky Saavedra and V. Darleen Opfer, *Teaching and Learning 21st Century Skills: Lessons from the Learning Sciences*, Center for Global Education, The Asia Society, April 2012, p. 9.

³ Robert D. Putnam, *Our Kids: The American Dream in Crisis*, Simon & Schuster, 2015, p. 33.

⁴ The importance of high school education in this prosperity is chronicled in Claudia Goldin and Lawrence Katz’s book, *The Race between Education and Technology* (Harvard University Press, 2010); Putnam also profiles economic data then and now in *Our Kids: The American Dream in Crisis* (above).

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⁶ Ibid., p. 32.

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⁸ Goldin and Katz, *The Race between Education and Technology*, p. 3-4.

⁹ Greg J. Duncan and Richard J. Murnane, *Restoring Opportunity: The Crisis of Inequality and the Challenge for American Education*, Harvard University Press, 2014, p. 1.

¹⁰ Peter Cappelli, *Will College Pay Off? A Guide to the Most Important Financial Decision You Will Ever Make*, Public Affairs Books, 2015, p. 46.

¹¹ Ibid., p. 6.

¹² Casey Foundation, *Youth and Work*, 2012, p. 2; and Bureau of Labor Statistics, “[Employment and Unemployment Among Youth Summary](#),” economic news release, US Department of Labor, August 2016.

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¹⁴ Pew Research Center, *Young, Underemployed and Optimistic: Coming of Age, Slowly, in a Tough Economy*, Feb. 9, 2012.

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¹⁹ According to a federal study cited in Cappelli, *Will College Pay Off?* (endnote 2, Report 1).

²⁰ Davis, Kimball, and Gould, *The Class of 2015*, p. 11.

²¹ Steinberg, “[America’s 10 Million Unemployed Youth](#),” p. 6.

²² Pew Research, *Young, Underemployed and Optimistic*, p. 1; and Andrew Sum, Ishwar Khatiwada, Mykhaylo Trubskyy, Martha Ross, Walter McHugh, and Sheila Palma, *The Plummeting Labor Market Fortunes of Teens and Young Adults*, The Brookings Institute, 2014, p. 4.

²³ Sum et al., *The Plummeting Labor Market*, p. 1.

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- ²⁴ Nancy Hoffman, [*Let's Get Real: Deeper Learning and the Power of the Workplace*](#), Jobs for the Future, February 2015, p. 4.
- ²⁵ Drew DeSilver, [*The Fading of the Teen Summer Job*](#), Pew Research Center, June 23, 2015.
- ²⁶ Christopher L. Smith, [*Polarization, Immigration, Education: What's Behind the Dramatic Decline in Youth Employment?*](#) working paper, Finance and Economics Discussion Series, US Federal Reserve Board of Governors, October 2011.
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- ⁴⁶ Anthony P. Carnevale, “[White Flight Is Creating a Separate and Unequal System of Higher Education](#),” *The Washington Post*, December 6, 2016.
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