

2024



Paths of Opportunity

What it Will Take for All Young People to Thrive



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An Unfulfilled Promise

America intends its education system to be the cornerstone of the nation's success, the great equalizer propelling each generation beyond the one before it. Yet we have not kept this promise.

The opportunity gap in the U.S. is systemic, real, and widening, and income mobility has been on a steady decline since the 1940s.¹ The job landscape is rapidly changing due to AI and advanced technologies, while graduates often emerge from high school and college without the durable skills expected in entry-level positions. Meanwhile, about 8 million jobs sit unfilled.²

It's time to build a future in which public education can truly make it possible for all young people to thrive in life, pursue careers of their choosing, and shape our democracy.

As a nation, we must ask ourselves:

1. How can we better prepare young people to navigate a dynamic world and workforce?
2. What will it take for education to deliver on its promise of economic and social mobility for all?
3. What experiences and opportunities across sectors will prepare young people to thrive in life?

These questions hold serious consequences for young people, communities, and our nation as a whole. Yet research hasn't uncovered enough about the links between education and mobility. Few comprehensive studies track the impact of formative academic and non-academic experiences on mobility over time.³ While many organizations are measuring mobility, our sector knows far less about what *leads to* mobility—or how to create paths to improve mobility for all young people.

Our Research on Economic and Social Mobility

To begin to address this, TNTP analyzed data from the National Longitudinal Survey of Youth 1997 (NLSY97), an ongoing annual survey that links experiences in school-age years to life experiences and earnings in adulthood. Here's what we found:

1. Of young people experiencing poverty in adolescence, few experienced meaningful economic or social mobility in adulthood.

In line with existing research, race and socioeconomic status continue to predict life outcomes.⁴

Just 3 in 10 young people experiencing poverty earned a living wage by age 30, compared to 6 in 10 young people from more affluent families.

2. Strong academic outcomes made mobility much more likely.

When young people experiencing poverty had strong academic outcomes in high school, their odds of earning a living wage by age 30 rose to 6 in 10.

3. Those who most needed a strong academic foundation were the least likely to get the means to build one.

Just 1 in 10 young people experiencing poverty had experiences that led to strong academic outcomes, one-third the rate of their more affluent peers.

4. Strong academic outcomes alone didn't outweigh the effects of poverty.

Even when young people had strong academic outcomes, they ended up earning no more at age 30 than the average student who was simply born into a more affluent family.

Our research showed that for most young people, especially those experiencing poverty, PK-12 education is not yet serving as an adequate bridge to opportunity in adulthood. Access to a living wage—the ability to meet basic needs for food, housing, health, and childcare—is a bare-minimum bar. Yet even when they excelled at school, 4 in 10 young people experiencing poverty were unable to reach that baseline security in adulthood. We must do better.

The Way Forward

How can we transform PK-12 education into the great equalizer that it could be for all children in this country? Academic experiences clearly matter: After accounting for young people's academic outcomes, no other factor was strongly linked to increased earning and well-being in adulthood. We must build a strong academic foundation for all young people, particularly those experiencing poverty.

But academics are also insufficient. Excelling in school does not guarantee mobility. Improving academics alone, even at scale, can't level the playing field for young people experiencing poverty. So what will?

While there is promising research on stand-alone interventions, we don't yet know what specific combination of factors, in addition to academics, will set young people up for success throughout their lives. Simply put, there's a gray area.

At TNTP, we're working to fill in that gray area and provide holistic support to young people from preschool through young adulthood. To that end, we conducted an extensive analysis of the NLSY97 data, national test data, observations from both partner organizations and other sectors, and existing research on education and mobility. We also drew from the lived experiences of students, educators, and families in our own work and from local efforts to improve mobility in communities across the nation.

Our analysis resulted in the identification of five interconnected factors critical for ensuring young people can thrive both now and in the future.

- 1. A strong academic foundation**
that enables young people
to learn on grade level
- 2. Career-connected learning** to build the
skills and experience for evolving careers
- 3. Opportunities to build social capital**
and activate networks to advance goals
- 4. Personal support in their lives** to
navigate toward goals and stay on track
- 5. Civic and community engagement**
to participate fully in society
and shape a better future

No single factor is enough to set young people on a path to opportunity. Instead, all five factors must be holistically integrated into young people's educational experiences. We imagine a world where learning ignites curiosity and where civic and real-world career experiences are seamlessly integrated early and often, so students build new skills and forge lifelong networks. We envision a deep community of support tailored to each student's unique aspirations, fostering a profound sense of belonging.

Making that vision a reality will require all sectors—public and private, civic and corporate—to take an active role in redefining the many systems that influence the trajectory of millions of young lives. We must rally as a society to build wider paths of opportunity in collaboration with educators, families, community partners, and young people themselves.

At TNTP, we look forward to joining like-minded leaders in ongoing efforts to ensure that all young people have the combination of resources and experiences they need to thrive in the futures they choose. Over the next several years, we will work with our many partners to build a holistic road map for mobility for all young people.

To aid this effort, our new **Research Center of Excellence** will launch a series of research-based publications and resources centered on our north star of economic and social mobility. We will conduct empirical and applied research, “learning and doing” as we leverage our trusted playbook of insight, courage, and action to get to impact.

We'll refine and share our evolving understanding of the factors most critical for mobility, spotlight promising practices and innovations, and lift up successes we see working in communities across the nation.

Our shared destination is a future in which no variable—not race, not zip code, not socioeconomic status—limits opportunities for young people. Together, we must meet the moment and prepare all young people to succeed in a rapidly changing world, no matter where their career paths may take them.

Introduction: Noe's Journey from Classroom to Career

Noe Garza remembers the exact moment he got into college: He was sitting in class at Earl J. Lennard High School in Ruskin, Florida, when he got a text from his mother that an acceptance letter had arrived from the University of South Florida. “When I got that text, I was kind of shocked that I actually got in,” Noe says.

Nobody in his family had gone to college. His mother, Maria Martinez, was a straight-A student in high school, but she didn't have the opportunity to continue her education. “I came from a migrant family,” says Maria. “We had nothing. I grew up working in the fields, picking tomatoes and strawberries.” Her family depended on her to help make ends meet.

Both she and her son had always seen college as a path to a better life, though Noe wasn't exactly clear how he would get there. Higher education wasn't an everyday conversation at his school, and many of his

friends planned to start working after graduation. Though he dreamed of earning a bachelor's degree, Noe didn't have specific career aspirations.

In his junior year, his precalculus teacher, Kelly Zunkiewicz, saw that he had a gift for math, and set a high bar for him academically. She encouraged him to take AP Calculus the following year, his first AP course. “I didn't feel supported at all in high school,” Noe says, “but it was a different situation walking into her classroom versus others. Ms. Zunkiewicz's class was a huge catalyst.”

Grappling with college-level math was both a challenge and an inspiration. He began to set his sights on a career in finance, one that would use his talent for math to build a different future for himself and provide financial security for his family. “I wanted to get a degree and then get a job right away and make money,” Noe says.



Noe Garza and his mother, Maria Martinez.

Noe had both a passion and aptitude for math, a willingness to work hard, aspirations of a better life, and a college acceptance letter in hand. But would that be enough to carry him through college and into a career that delivers on his dreams?

Noe Garza focuses during his AP Calculus class.



The Challenge Before Us

America intends its education system to be the cornerstone of the nation's success, the great equalizer propelling each generation beyond the one before it. It's the stuff and substance of the American Dream: the idea that a free public education puts success within everyone's reach, regardless of their socioeconomic status, religion, gender, or race.

In the past, even though most roads to power and prosperity passed through college, many of those who went to work straight out of high school could still earn high wages, purchase a home and automobile, become an entrepreneur, start a small business, or travel the world. The promise of a life fueled by choice and individual agency inspired tens of millions of young people in this country to pursue their dreams. It still does.

But realizing those dreams was never truly within every American's reach. And while the national economy has cycled through periods of boom and bust, income mobility has been on a steady decline since the 1940s.⁵ Today only half of young people grow up to earn more than their parents, down from 90 percent in the 1940s. In other words, for young people like Noe, it has become far more difficult to earn their way out of poverty into the middle class, even with a high school diploma and a college degree.

During the same period, American education has not delivered on its promise to young people. Graduates often emerge from high school and college without the durable skills expected in entry-level positions, like critical thinking, communication, and collaboration. Employers have consistently valued durable skills when filling entry-level openings, but a majority report that high school graduates do not have those skills.⁶ One survey found that more than half of employers struggle to fill open roles.⁷

Today, there are about 8 million job openings—far more than the number of people actively seeking employment. While young people have brighter economic prospects when they enter the workforce during periods of economic growth, young people should enter the job market with

the skills and experiences that enable them to thrive even in economic downturns, when the labor market becomes much more competitive.⁸ Yet, we continue to graduate young people who are woefully unprepared to tackle the great challenges our nation will face in the years ahead.

Our Response

For TNTP, the situation has prompted deep self-reflection and a reassessment of how to create a future in which every young person—every generation—thrives.

For more than 25 years, TNTP has worked to fulfill the promise of public education. We have grown from preparing new teachers to supporting school systems serving over 40 percent of students in the United States. We have deep experience working hand in hand with educators and leaders in thousands of school districts to solve their most intractable problems. Together with our partners, we have made important progress, but it is not nearly enough.

At this moment in time, a young person's household income, zip code, gender, and race remain the best predictors of their socioeconomic fate in adulthood. We have not met our own expectations on behalf of students.

In response, TNTP is expanding our mission to meet this once-in-a-generation challenge. Our goal is ambitious: a public education experience that upends the predictive influence of poverty, zip code, gender, and race on a child's life outcomes; fuels innovation and economic growth across our country; and fulfills the promise of the American Dream for generations to come.

We know we cannot achieve this bold vision within the traditional four walls of education. Young people are more than what happens in school, so PK-12 education can no longer operate in a silo. Instead, we must forge cross-sector partnerships that break down the false walls between education, workforce, and other systems that shape young people's lives.



The stakes are higher than ever for young people and for our nation. We must work collectively to confront three critical questions:

1. How can we better prepare young people to navigate a dynamic world and workforce?
2. What will it take for education to deliver on its promise of economic and social mobility for all?
3. What experiences and opportunities across sectors will prepare every young person to thrive in life?

The answers to these questions hold the key to increasing the health and well-being of our communities, ending cycles of generational poverty for millions of our young people and their families, and strengthening our nation.

In this paper, we share our ideas about how we can collaborate across sectors to bring this broader vision to life.

The Current State of Economic and Social Mobility for Young People

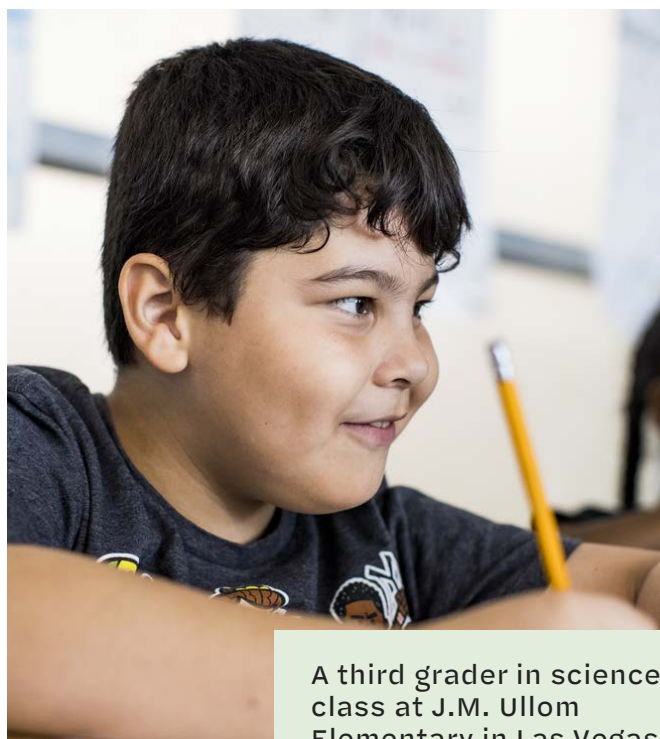
Millions of young people like Noe go to school every day with the expectation that education will provide a path to a better life. They believe that if they work hard and excel in school, they can better their social and economic circumstances in adulthood. But upholding that promise will take more than just academics during a young person's school years.

To strengthen the connection between education and mobility, we must better understand the factors that contribute to personal and professional success in the 21st century. Unfortunately, there are few comprehensive studies that track the impact of formative academic and non-academic experiences on mobility over time. That could be because economic mobility is considered the domain of business and industry—in other words, the economy, not the education system.

One data source that does track mobility over time is the National Longitudinal Survey of Youth 1997 (NLSY97), an ongoing project sponsored by the Department of Labor. It follows a cohort of people born between 1980 and 1984 into adulthood, establishing an important reference point for how young people navigate American society. The NLSY97 cohort population is a microcosm of America, broadly representative of the many groups clustered in our nation's classrooms in 1997.

Researchers have relied on this data for research into topics as varied as IQ, social capital, and social determinants of health.⁹ TNTP conducted analyses of this same body of data to explore the connections between how we prepare young people for adulthood and their subsequent outcomes in work and life.

We compared the life trajectories of adolescents experiencing poverty relative to those of adolescents born into middle- and upper-income families. We looked at both academic factors (such as grades, test scores, attendance, and participation in advanced classes) and a broad range of other factors (including career-connected experiences and students' expectations for their success).



A third grader in science class at J.M. Ullom Elementary in Las Vegas.

Ultimately, we wanted to know how young people's experiences during their school-age years shaped their economic and social mobility in adulthood. Here's what we found.

- 1. Of young people experiencing poverty in adolescence, few experienced meaningful economic or social mobility in adulthood.** In line with existing research, race and socioeconomic status continue to predict life outcomes for young people.¹⁰ Just **3 in 10** young people experiencing poverty earned a living wage by age 30, compared to **6 in 10** young people from more affluent families. Just **2 in 10** reported a high level of well-being, compared to **4 in 10** more affluent young people.
- 2. Strong academic outcomes made mobility much more likely.** When young people experiencing poverty had strong academic outcomes in high school (e.g., better grades and higher test scores), their odds of earning a living wage by age 30 rose to **6 in 10**. This is better but still not good enough.
- 3. Yet young people experiencing poverty rarely had access to a strong academic foundation.** Just **1 in 10** had strong academic outcomes, one-third the rate of their more affluent peers. Students who most needed a strong academic foundation were the least likely to get access to it.
- 4. Strong academic outcomes alone didn't outweigh the effects of poverty.** Even when young people had strong academic outcomes, they ended up earning no more at age 30 than the average student who was simply born into a more affluent family.

Our research confirmed what so many have personally experienced. For most young people, especially those experiencing poverty, PK-12 education is not serving as an adequate bridge to opportunity in adulthood.

Access to a living wage—the ability to meet basic needs for food, housing, health, and childcare—is a bare-minimum bar. Yet even when they excelled at school, 4 in 10 young people experiencing poverty were unable to reach that baseline security in adulthood. We must do better.

Our Findings

Few young people experiencing poverty achieved economic or social mobility in adulthood.

It's well established in the research that poverty affects a higher proportion of people of color¹¹ and that poverty is passed down from generation to generation.¹² When you face the strains of poverty without access to strong schools, it's more likely your children will experience poverty in adulthood as well.

The same was true in this data. Black, Latinx, and multilingual learners were more likely to grow up in families in the bottom quartile of U.S. income distribution. Black and Latinx students accounted for half of young people experiencing poverty but only one-third of the U.S. youth population. Multilingual learners made up one-quarter of the young people experiencing poverty but only 15 percent of the U.S. youth population.

For young people who grow up experiencing poverty, the path to economic and social mobility is steep.¹³ In the survey data, only 3 in 10 students who grew up in poverty earned a living wage by age 30, compared to 6 in 10 young people who grew up more affluent.

Only 2 in 10 young people who grew up experiencing poverty reported a high level of well-being in adulthood, compared to 4 in 10 young people who grew up more affluent. Describing their life at age 30, they reported relatively low levels of financial, social, physical, and emotional well-being.

Strong academic outcomes made economic and social mobility much more likely.

The NLSY97 captured a wide range of young people's high school experiences. It recorded academic experiences, including attendance and behavior, perceptions of schools and teachers, academic outcomes, and caregiver involvement. Young people also described their social networks, expectations for their success, and participation in career-connected learning programs.

We isolated each factor to understand which were correlated with increased mobility in adulthood, all other factors being held equal. For example: If two students had otherwise identical experiences, and one had stronger academic outcomes, would that student do better in adulthood?

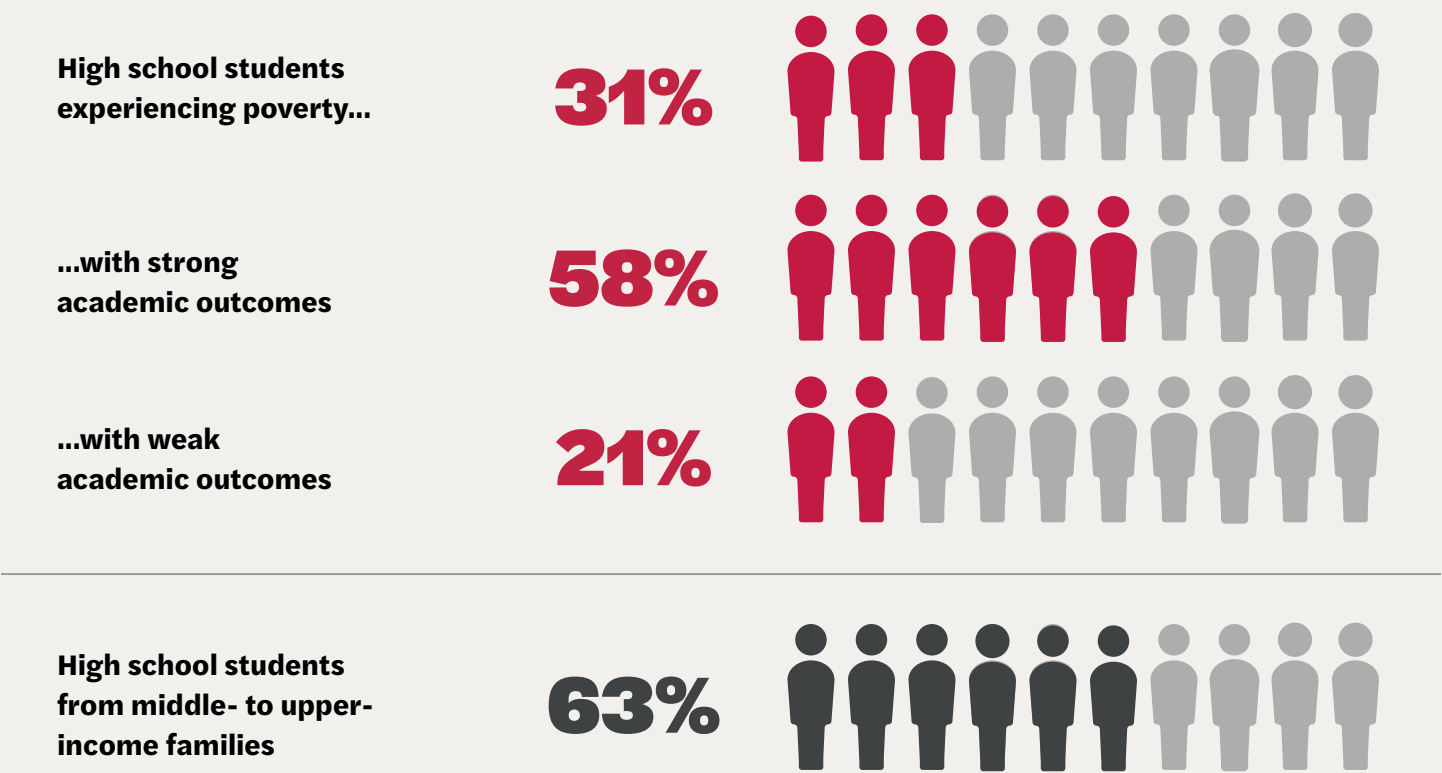
As we would expect, academic outcomes matter. Out of the recorded high school experiences, only academic outcomes predicted both economic and social mobility. Other factors, as they were defined in 1997, had more modest links, if any. Young people's attendance and behavior, perceptions of their peers, and expectations for success were modestly linked to their well-being in adulthood (defined as their self-reported financial, career, educational, social, physical, psychological, and emotional health). No other experiences captured in the survey data were meaningfully linked to mobility in adulthood, all else held equal.

How much did academics matter? Of students experiencing poverty, those with strong academic outcomes were nearly three times as likely to earn a living wage and report high levels of well-being by age 30 as their peers with weak academic outcomes. This is a life-changing difference. Young people who excelled in high school had dramatically better life outcomes than those who didn't.

Critically, strong academic outcomes in high school predicted mobility regardless of whether students went to college. Among young people experiencing poverty who did not go to college, high school performance was critical to economic security in adulthood. Students in this group with strong academic outcomes were 34 percentage points more likely to earn a living wage than their peers with weak academic outcomes.

Academic outcomes matter. But academic excellence alone did not outweigh the effects of poverty.

Likelihood of Earning a Living Wage by Age 30



Academic Outcomes in High School Are Highly Linked to Life Outcomes in Adulthood

	High School Experiences				Adult Outcomes at Age 30	
	Average high school GPA	Typical math and verbal achievement ranking	Proportion taking courses recommended for a 4-year college	Average days absent in a school year	Percent at or above living wage	Percent with high overall well-being
Young people who experienced poverty who had weak academic outcomes	2.2	18th Percentile	Almost none ($<1\%$)	18	21%	16%
Young people who experienced poverty who had strong academic outcomes	3.4	77th Percentile	1 in 4	5	58%	44%
Young people from a family in the upper half of the income distribution, regardless of academic outcomes	3.0	64th Percentile	1 in 8	7	63%	39%

Notes: Strong and weak Academic Outcomes and high overall well-being are each defined according to terciles that are determined across the full NLSY97 sample (and weighted according to population representation using NLSY97 weights for the full panel). The averages and percentages above are likewise weighted. Differences across terciles for students from families experiencing poverty look similar when controlling for other experiences and student characteristics. Specifically, a logistic regression of mobility on Academic Outcomes tercile with controls for baseline household-adjusted income rank, parental education, birth year, and other experiences in high school shows that students experiencing poverty who have strong (top-tercile) Academic Outcomes have approximately four times the odds of earning a living wage at 30 (odds ratio = 4.01, $p < 0.001$) and substantively greater odds (odds ratio = 1.87, $p < 0.01$) of having high overall well-being relative to students experiencing poverty with weak (bottom-tercile) Academic Outcomes. Middle- and upper-income young people are those whose families were in the upper half of the household-adjusted income distribution.

Young people experiencing poverty rarely had access to a strong academic foundation.

While strong academic outcomes are a powerful predictor of mobility, they are far too rare. Only 14 percent of young people experiencing poverty had strong academic outcomes, compared to 46 percent of those from middle- and upper-income families.

As TNTP documented in [The Opportunity Myth](#), most young people don't get access to high expectations, quality instruction, and the challenging content that will prepare them for their future education and career goals, which inhibits their ability to build a strong academic foundation. This flies in the face of the promise of education as a great equalizer.

This disparity is not a question of being less capable or of putting in less work. Like poverty, wealth feeds an intergenerational cycle. In addition to sending their children to well-resourced schools that provide

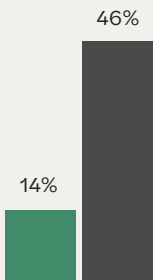
strong instruction and support, affluent families can afford top-notch enrichment, career connections, and personal support for their children, who pass those advantages on. In fact, families with wealth spend approximately \$10,000 more per year on enrichment than families with lower incomes.¹⁴

Families with less wealth have fewer options. Students experiencing poverty are less likely to have access to strong teaching and advanced classes¹⁵ and to have people encouraging them to take the courses and tests recommended for college so that they have a choice about attending.¹⁶ They are also more likely to attend underfunded schools with fewer resources.¹⁷

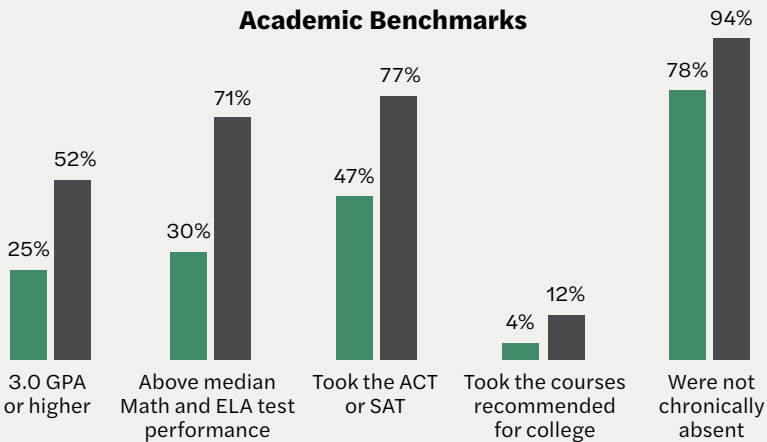
As a result, they are less likely to achieve academic milestones than students from middle- and upper-income families. More affluent students are twice as likely to earn a GPA of 3.0 and to score well on math and reading tests and three times as likely to take the courses recommended for college.

Young People Experiencing Poverty Rarely Had Access to a Strong Academic Foundation

Percent with Strong Academic Outcomes



Percent Meeting Various Academic Benchmarks



● Young People Experiencing Poverty ● Middle- and Upper-Income Young People

Note: Students are defined as having strong Academic Outcomes when they are in the top tercile (across the full NLSY97 sample, weighted for population representativeness) for that factor. Values are simple averages. Logistic regressions of the respective contributing variables shown above (e.g., cumulative high school GPA) on the respondents' poverty status, with controls for household poverty ratio, parental education, and birth year, all indicate odds of meeting the respective criterion at 0.62 or lower for students from families experiencing poverty relative to students whose families come from the upper half of the household income distribution ($p<0.05$).

Strong academic outcomes alone did not outweigh the effects of poverty.

We know that strong academic outcomes matter, and they're all too infrequent for students experiencing poverty. But what happens when a student experiencing poverty gets the rare chance to excel in school?

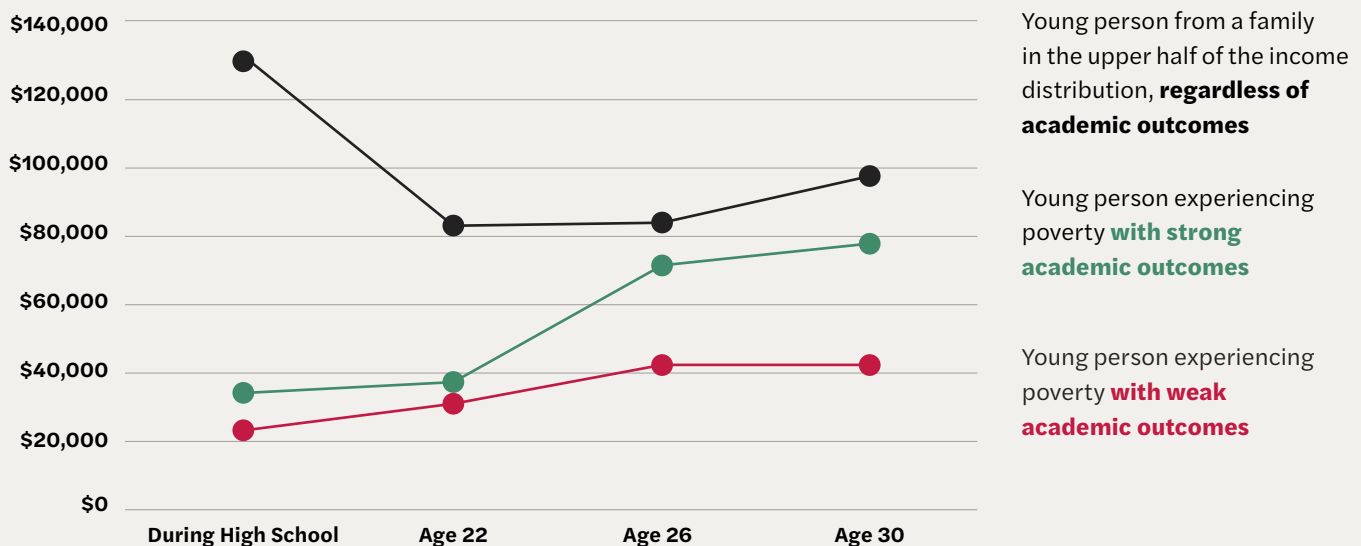
Relative to other young people experiencing poverty, those with strong academic outcomes earned significantly more at age 30 than their peers with weak academic outcomes. Yet those same young people only roughly broke even with more affluent students, regardless of their academic outcomes.

Consider two students, one experiencing poverty and the other more affluent. The first student excelled in school in every way: They earned great grades, scored well on reading tests, rarely missed school, and took college prep courses. The second student was simply born more affluent. As adults, the two students earned roughly the same income, on average.

Academic excellence at school did not outweigh the effects of poverty. Even when young people experiencing poverty got all the right opportunities and put in their very best work, they did not typically surpass their more affluent peers in adulthood. Their outcomes were better but still not good enough.

Median Gross Household Income Relative to Academic Outcomes in High School

In 2023 dollars



Notes: Household income can include any combination of respondent, parental, and spousal income, depending on the respondent's living situation (e.g., in high school, household income is typically comprised almost entirely of parental income, but can include income from part-time work when the youth earns income while in school). At ages where surveys were not fielded or when respondents did not provide income information, income is interpolated from adjacent years. Median income at each age is weighted by NLS sample weights for the full panel of the survey to produce population-representative estimates. Linear, within-respondent, regression models demonstrate similar trajectory patterns to those shown here. While the point estimates for earnings at age 30 differ between young people experiencing poverty with strong academic outcomes and their average more affluent peers, these differences are not statistically significant.

Building Paths of Opportunity

If PK-12 education is not serving as an adequate path to opportunity in adulthood, how can we build a better path?

Academic experiences remain foundational. As we learned in [The Opportunity Myth](#), far too many students—and especially students of color, those from low-income families, those with learning and thinking differences, and multilingual learners—spend the vast majority of their school days missing out on four crucial resources: grade-appropriate assignments, strong instruction, deep engagement, and teachers with high expectations.

Expanding access to these resources is more urgent than ever, especially given pandemic-related setbacks and growing inequities between affluent students and those experiencing poverty. As our NLSY97 analysis clearly shows, a strong academic foundation paid dividends for both young people who went to college and those who went straight into the workforce.

So why not stay focused solely on academics if there is still so much work to be done? Because academics alone will not get young people where they need to go. Excelling at school does not outweigh the effects of poverty or generate widespread mobility. Our work starts with academics, but it cannot end there.

While there is promising research on stand-alone interventions that aid mobility, we don't yet know what specific combination of factors during childhood and adolescence, in addition to academics, will set young people up for success throughout their lives. Simply put, there's a gray area.

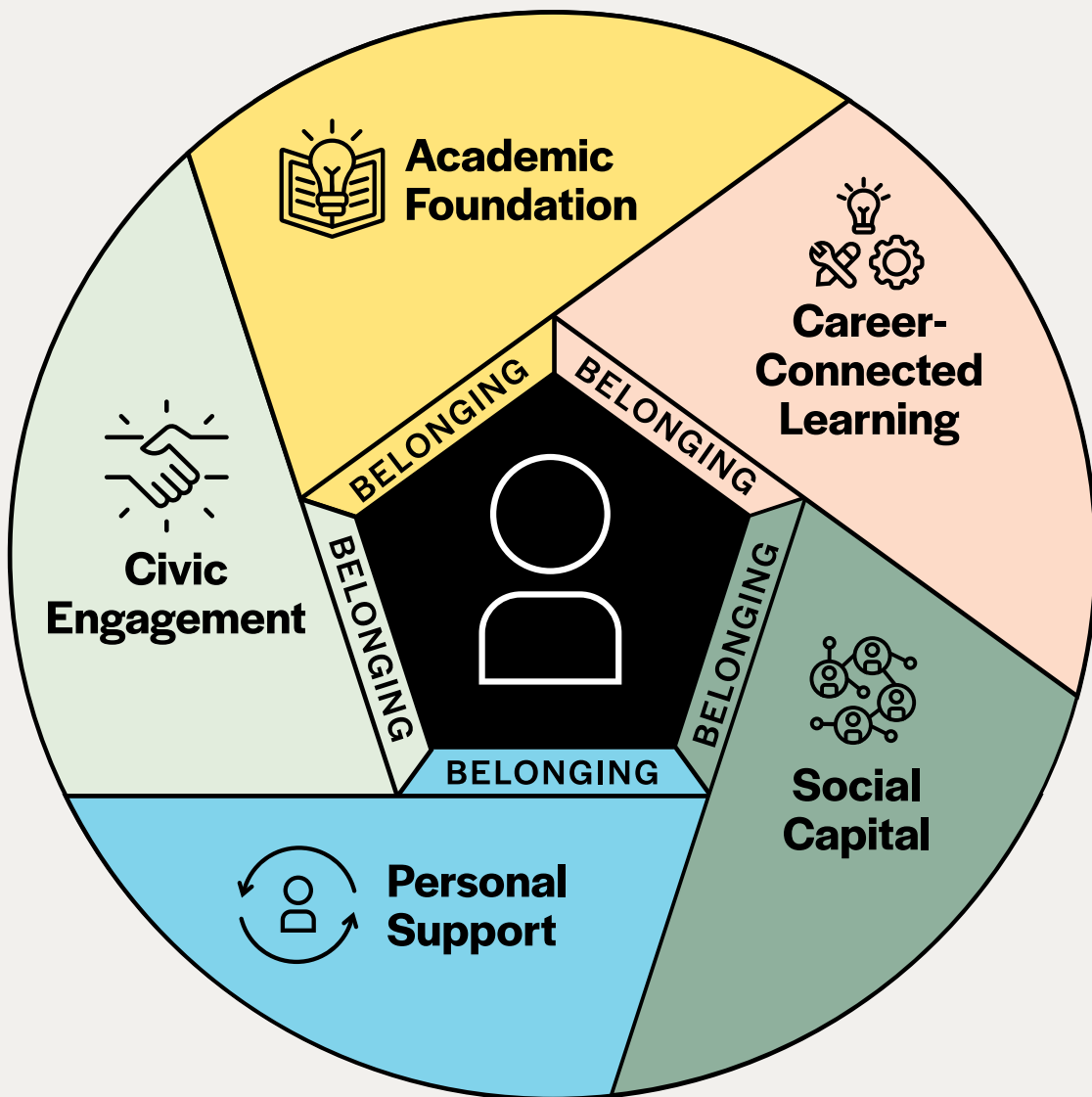
At TNTP, we will work to fill that gray area and identify the additional factors capable of influencing mobility, with the aim of integrating these factors into a coherent system that can be woven into every young person's daily experiences.

As a first step, we laid out the available data: the NSLY97 results; national test data on academic proficiency; promising practices from communities across the country; and research and observations from partner organizations and other sectors, including business, labor, education, and workforce development. We also drew from the lived experiences of students, educators, and families in our own work with more than 6,000 school systems nationwide.

Based on our review, we identified five factors that we believe should be part of every young person's educational journey:

The Five Factors of Economic and Social Mobility

What do young people need to thrive in life, careers, and democracy?





Third graders collaborate in science class at J.M. Ullom Elementary in Las Vegas.

An additional element that affects each of these five factors is whether young people experience a sense of belonging, which is a prerequisite for all learning. Belonging is created by intentional policies, practices, and systems that value students' identities, recognize their agency, and activate their ability to succeed.¹⁸ When young people feel a sense of belonging and purpose, they are motivated and supported to leverage their gifts and achieve their goals.

We believe that all five factors, undergirded by a strong sense of belonging, must work together to set young people up for success. When all five factors work in concert, we know young people will have a far clearer path to their goals. This process must begin in elementary school and be present throughout the PK-12 journey. Today, existing interventions often start in high school, like civics class and college advising.

While we have defined each factor independently here, these factors will be far more powerful when they overlap, compounding their effects. For example, both a strong academic foundation and civic engagement build durable skills like critical thinking and communication. Both career-connected learning and opportunities to build social capital help young people prepare to engage in the changing world of work.

Below, we share our initial working definitions of each factor, which draw heavily on the best thinking from the field. As we conduct additional research, we will refine and share our evolving understanding of these five factors as well as any additional factors we identify that have the potential to increase mobility for young people.

The Five Factors of Economic and Social Mobility

What do young people need to thrive in life, careers, and democracy?

1

A strong academic foundation that enables young people to learn on grade level

All young people deserve the chance to learn on or above grade level, regardless of where they start. Research shows that PK-12 experiences are strongly associated with long-term economic and social mobility¹⁹ and that belonging is the bedrock of learning.²⁰ Yet the young people who most need a strong academic foundation are the least likely to get it. Due to long-standing inequities, academic disparities between white children and Black and Latinx children appear as early as age three.²¹

We must provide a strong academic foundation from the time young people enter school until the time they exit. This base of knowledge and skills is rooted in basic literacy and numeracy and evolves to include critical thinking, problem solving, and communication.

All young people need consistently good teaching and grade-level content, coherent support to do their best work, and an emotional climate for learning that builds belonging and activates their ability to excel. Research also shows that all students benefit from having access to diverse educators, particularly students of color, who achieve at higher levels and are less likely to be suspended or drop out of school.²²

If they fall behind, young people need schools that can help them catch up. We must accelerate learning for all, particularly for students of color, students experiencing poverty, multilingual learners, and students with learning and thinking differences.

2

Career-connected learning to build the skills and experience for evolving careers

To thrive in a changing economy, young people must be able to connect their education to real-world work experiences. Yet there is a persistent disconnect between PK-12 schooling, higher education, and our workforce systems.²³ More than half of high school students say they do not plan to follow the traditional college-degree path, and only 2 percent completed an internship during high school.²⁴ Three-quarters of high school graduates do not feel prepared to make college or career decisions.²⁵

We intentionally distinguish career-connected learning from the Career and Technical Education (CTE) of old, which was vocational by definition. Career-connected learning aims to build durable skills and competencies that allow young people to make informed choices for their future.

Today, most career sessions are one-offs in high school, but young people start forming their long-term aspirations in elementary and middle grades.²⁶ Career-connected learning must start earlier and integrate with core classes throughout the PK-12 journey.

We advocate for a four-phase approach: exposure to diverse careers in elementary school, exploration of careers in middle grades, immersion with employers in high school, and initial opportunities to learn and earn before graduation. This will help young people build knowledge of multiple career pathways and gain valuable experience and durable skills, like critical thinking and communication, that will stay relevant as jobs and credentials evolve.²⁷

3

Opportunities to build social capital and activate networks to advance goals

Social capital opens doors to new opportunities. A web of relationships, whether built or inherited, is critical to young people's well-being and career growth. This includes both strong, tight-knit relationships that offer reliable support, and looser ties that introduce new information and advice.²⁸

But it's not enough just to know people. Young people need the skills and confidence to leverage those relationships to further their goals.²⁹ Yet most schools are focused on what young people know rather than who they know. Currently, most young people receive little support to build and leverage their networks, and most of the networks that could propel young people into coveted slots at colleges, universities, and valuable internships are exclusive by design.

We must help all young people build personal and professional networks (both vertical and horizontal) throughout their lives, understand the power of social capital, and intentionally access their networks to advance their goals.

In the elementary-school years, this could be a close relationship with a trusted adult to support their class work and well-being. Later in their adolescence, this could mean active connections—whether through strong or weak ties—to advisers, coaches, mentors, and professional networks.³⁰ When young people actively engage their networks, they can expand their sense of possibility and gain guidance on careers and beyond.

4

Personal support to navigate toward goals and stay on track

Young people need help identifying their passions, plotting the paths to their goals, and recalibrating as their goals evolve or obstacles arise. For example, a student applying to college may benefit from robust guidance on how to prepare, extra tutoring or enrichment to boost their application, and the financial means to attend. If they hit a roadblock with their application, they have help to sort it out. Traditionally, advising was generally reserved for college-bound students, but the same support and advisement structures should be available to students who aspire to enter the workforce directly after high school.

All young people deserve personal support that aligns to their aspirations so that they can plot the path to their goals and adjust them as needed. Personalized support draws on the assets of the surrounding community to meet

young people's needs both in and outside of school. Targeted approaches could include proactive advising (like ongoing relationships with trusted advisers), enrichment (like arts, sports, or tutoring), and support for basic needs (like food, health, or housing).

We can build from models that are already working. Research from higher education shows that proactive advising, present in many post-secondary institutions, particularly in historically Black colleges and universities (HBCUs), is associated with increased student retention and academic performance.³¹ In another study, providing coherent support to community-college students—including frequent advising, financial support, career development services, and tutoring—dramatically increased graduation rates.³²

5

Civic and community engagement to participate fully in society and shape a better future

We must help young people develop a civic identity and build their sense of belonging in society.³³ This important factor is often overlooked. Civics isn't just about studying the past; it's about engaging in the present moment and the places where we live. Members of Gen Z and Gen Alpha are passionate about social justice and eager to contribute.³⁴ Civic and community engagement can empower young people to shape their communities, engage in our democracy, and connect to something bigger than themselves. When we harness their passion, both individual young people and our entire nation benefit.

Every democracy depends on an engaged, thriving citizenry to further its ideals. Yet civic experiences are often limited to a single government class in

high school.³⁵ While young people do need a solid grounding in U.S. history and government, they also need the knowledge, experiences, and values to become the community leaders of tomorrow. This includes early exposure to critical-thinking skills, practice in constructive debate, and hands-on leadership experience in service learning or student associations.³⁶ Rather than reading about civic engagement in the abstract, young people learn to participate in society by doing it.

The well-being of individual citizens and the health of our communities and our democracy are inextricably linked. Civic and community engagement provides young people—and all of us—the opportunity to design a system anchored on this win-win premise.

Making Enrichment Accessible for All

Since the 1970s, families have increasingly invested time and money in extracurricular activities—like exposure to technology, the arts, work study, or leadership—to supplement their children’s education.

Enrichment activities like these offer access to the factors of mobility, building young people’s relationships with peers and influential adults. This trend suggests that many families already know that PK-12 education is not enough to fully prepare their kids for the lives they want to lead.

While some enrichment activities may be provided by school systems, they are often funded by families, which puts low-income families at a

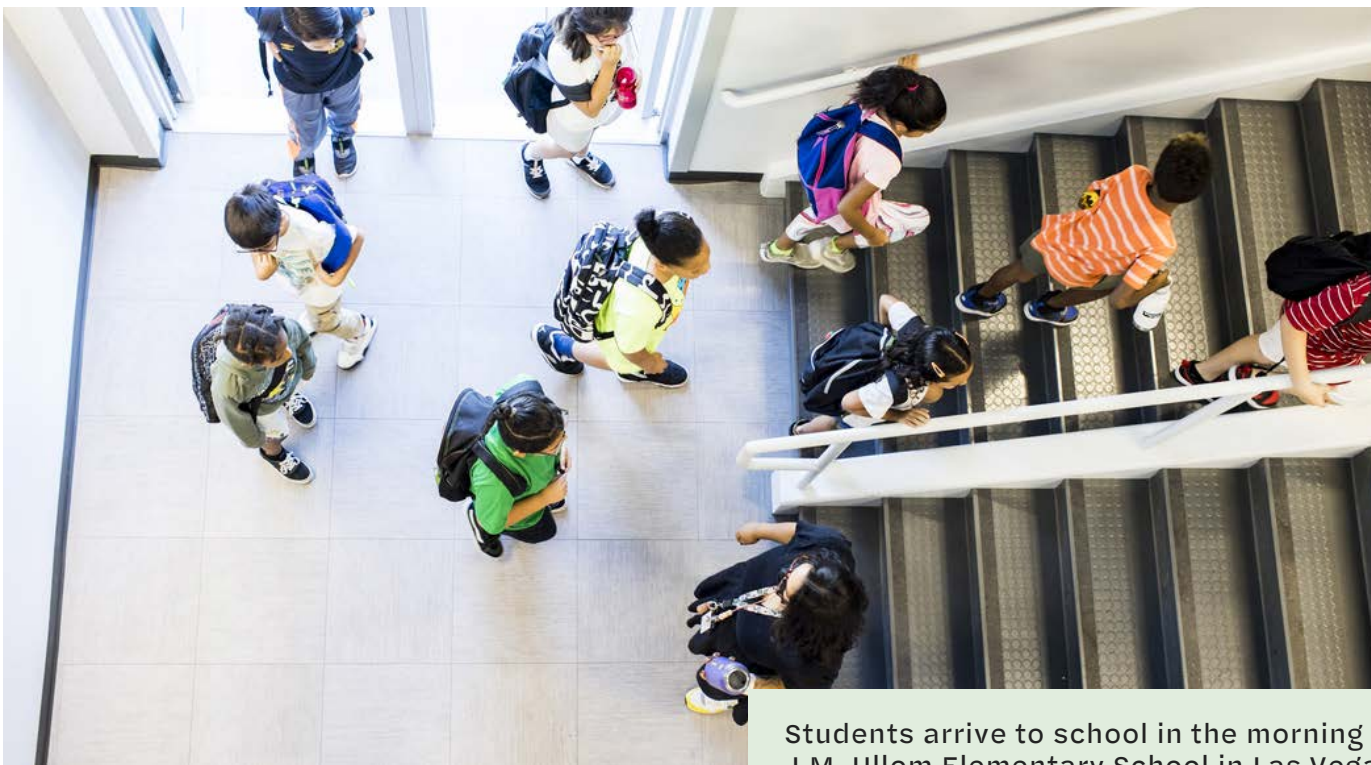
disadvantage. Consider families’ spending on children’s enrichment before the age of six: In the past four decades, the gap in spending on enrichment between high-income and low-income families has nearly tripled, widening the class divide.³⁷ Too often, access to enrichment activities comes down to a family’s means or the luck of the draw.

We can look to affluent communities around the country for examples of experiences beyond academics that can help young people be successful in adulthood. We believe that enrichment activities like these should be accessible to all young people—not just a select few.



First-grade students practice their counting skills in the classroom at James Russell Lowell School 51 in Indianapolis.

The Way Forward



Students arrive to school in the morning at J.M. Ullom Elementary School in Las Vegas.

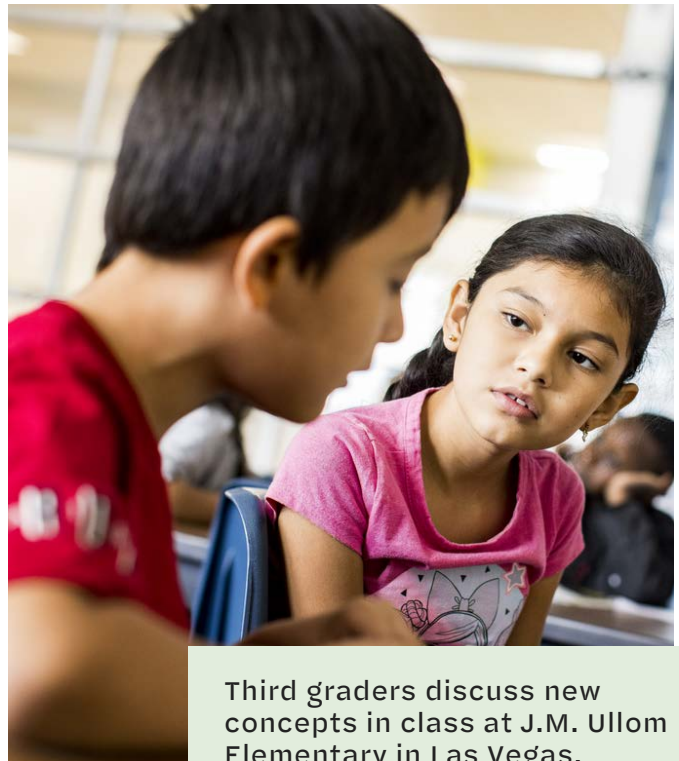
The five factors of mobility serve as the starting focus for TNTP's new strategy, which will continually evolve as we learn more. They also serve as a call for collective action: We must step out of our silos, build a coherent strategy for all five mobility factors, and execute it in a way that creates real results for young people. TNTP plans to build the evidence base for the five factors and explore how they intersect to shape mobility. But measuring mobility is not enough; we must unite our efforts to increase it.

We are issuing a call to action for everyone working with young people to join forces to achieve a shared vision of economic and social mobility for all.

With the PK-12 education system as a key player in mobility efforts, we must lean into deeper, more coherent cross-sector partnerships, drawing on the strengths of people and organizations beyond the school building. Together with partners in higher education, government, business, labor, and local communities, we can build broader coalitions for change and pursue a shared vision for success.

Let's be clear: Schools alone can't make this vision real. Young people's lives are shaped by much more than what happens at school.

Yet PK-12 education remains a critical entry point. Schools are the only public systems in our country that are accountable for most young people from ages 5 to 18. Beyond imparting academic content, schools send powerful signals to young people about who they are, what they can expect from society, and whether they belong.



Third graders discuss new concepts in class at J.M. Ullom Elementary in Las Vegas.

Measuring mobility is not enough; we must unite our efforts to increase it. We must step out of our silos and work together to apply innovations, solutions, and strategies that improve life outcomes for all young people.

We must work together to apply innovations, solutions, and strategies that improve life outcomes for all young people. This will take more than connections across organizations or a shared vision that we each pursue separately. Instead, we need to develop a coherent strategy for all five mobility factors, and we must join forces to implement it effectively.

Think of the effort ahead like the attempt to put a man on the moon, a proxy for all audacious goals that appear impossible at the outset. It's not the moonshot itself that is so intriguing. It's John F. Kennedy's admission that he didn't know how we would achieve it. What would be required? How would we all support the effort, the cost, and the time commitment?

None of that was knowable at the start. Yet Kennedy committed. The nation committed. It's time to commit again, this time to the moonshot of the 21st century. Our collective future depends on it.

Committing to Collaborative, Community-Driven Change

At TNTP, we have reoriented toward economic and social mobility as the goal of our work. In the past 25 years, we have focused primarily on improving achievement scores and college- and career-readiness metrics. We have made important progress, but focusing only on graduation stops the clock when young people turn 18, rather than focusing on the long-term life outcomes that matter most.

Moving forward, TNTP will double down on improving academic outcomes for young people, building on our decades of experience in the field. At the same time, we will widen our aperture to ensure coherent

experiences that help young people develop their durable skills, social capital, and ability to participate fully in society. At the national level, TNTP will work to improve all five mobility factors across sectors. At the local level, we will support communities to develop cross-sector coalitions that can define and drive toward a shared vision of mobility.

As we continue our work in districts across the nation, TNTP will join leaders (both within and beyond education), families, and young people to craft a shared vision for long-term mobility. While educators should be at the heart of this work, school systems don't have to be the starting point for cross-sector coalitions. Instead, coalitions should start from the community's shared concerns for young people and the will to change the status quo.

Korey Green (L) receives coaching from Giselle Allen (R).



To begin, we will work with local leaders and residents to understand a community's unique starting place. Using district and public data, we'll determine how frequently graduates experience economic and social mobility, and what disparities exist based on race, gender, language, immigration status, and learning differences.

Together, we'll engage in dialogue with the broader community about what should be true for young people when they leave PK-12 education. What skills, knowledge, and experiences should young people have when they graduate, and what barriers prevent them from achieving their goals?

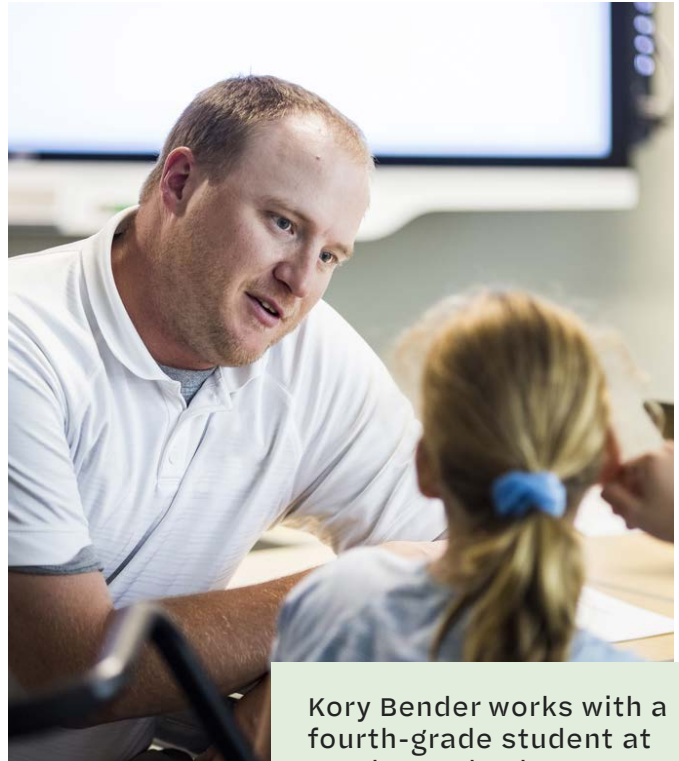
We'll then work alongside community leaders and stakeholders to identify assets and promising practices already present in the community. Communities are rich with local organizations that are deeply connected and committed to young people and their families. Promising practices might come from a fraternity or sorority focused on mentoring, a local neighborhood center that offers academic tutoring, or a workforce-development organization focused on ensuring all young people have the skills they need to secure high-wage jobs. Coalitions can identify ways each organization can support the goals for young people, building on what each one does best.

TNTP will help turn the community's vision and assets into a shared strategy for mobility and implement it together to create change. We will expand access to strong academic outcomes and incorporate the additional factors that drive mobility in a coherent way, leveraging our trusted playbook of insight, courage, and action. We will set shared goals, work together to improve young people's experiences, track joint progress in a streamlined way, and regularly refine our collective approach.

In the communities where we work, we'll learn quickly from our successes so we can scale up while taking a design orientation to fill in gaps. This design work will start at the student level and build toward sustainable, scalable impact, considering the combination of experiences an individual needs to access all five mobility factors. We'll also continue to work with system leaders and policymakers to

develop coherent programs and initiatives and to eliminate efforts that are distracting or misaligned.

Building a strong academic foundation will continue to be vital. After all, most young people who fall behind in school stay behind, which is a major barrier to their future mobility.³⁸ Working together with families and community partners, we can take a more systematic approach to ensuring that young people who fall behind have the resources they need to catch up.



Kory Bender works with a fourth-grade student at North Woods Elementary in Plymouth, Minnesota.

Conclusion

Noe had both a passion and aptitude for math, a willingness to work hard, aspirations of a better life, and a college acceptance letter in hand. Would that be enough to carry him through college and into a career that delivers on his dreams?

The answer is yes—and no.

When Noe first arrived at college, he didn't think he'd make it to graduation. "I was super intimidated, super lonely," Noe says. "I didn't feel like I belonged."



Noe joins the first general body meeting of his corporate mentorship program at USF Muma.

Things began to improve when Noe joined a fraternity, a Mexican American student association, and a program for first-generation college students that paired him with a mentor at Citi, his dream employer. Building his network boosted Noe's confidence and expanded his sense of possibility.

Still, completing college wasn't easy for Noe. As a first-generation student, he didn't always know how to navigate school. He watched friends drop out because they got too far behind in class and didn't have anyone at school to turn to. But Noe kept going and earned his finance degree in four years.

Then he faced a new hurdle: getting a job. Employers wanted to see relevant experience, but Noe had worked through college and couldn't afford to do an unpaid internship. He applied to Citi 50 times with no response. It took him two years to gain enough work experience to land an entry-level position at Citi.

Today, Noe loves his role and appreciates the financial security that comes with his chosen career. He recently became a homeowner and says he is earning enough to save for the future. But while Noe is proud of how far he's come, he feels that his path didn't need to be so hard.

A strong academic foundation in math class was only the start of his journey. To fully realize his potential and enter his chosen career, Noe needed advice on navigating school, relevant work experience, the ability to build and use his professional network, and hands-on leadership experience.

Noe made it to college, secured a quality job, and laid the foundation for a thriving life despite the odds. His success makes him an exception—a bootstrap story that highlights how rare it is for young people to escape generational poverty.

We must change this narrative. Noe's story should be the rule, not the exception.

Join Us

Given the right mix of strong academics, career-connected learning, social capital, personal support, and civic engagement, it can be possible for millions more young people to step onto their own paths of opportunity. And as they embark on thriving lives, their successes will lift up communities, fuel innovation and economic growth across our country, and fulfill the promise of the American Dream for future generations. There is no more important work than this.

Over the next several years, TNTP will work with our many partners to build a holistic road map for mobility for all young people. We look forward to joining like-minded leaders in ongoing efforts to ensure that all young people have the combination of resources and experiences they need to thrive in the futures they choose.

To aid this effort, our new Research Center of Excellence will launch a series of publications and resources centered on our north star of economic and social mobility. We will conduct empirical and applied research, “learning and doing” as we drive toward impact. We’ll refine and share our evolving understanding of the factors most critical for mobility, spotlight promising practices and innovations, and lift up successes we see working in communities across the nation.

Let’s work together to transform America’s public education system so that every young person—every generation—thrives.

Get in Touch

To join us in this effort to transform education so that all young people can thrive, [sign up for our email list](#).

Appendix: Research Methodology

Our analysis of academic mobility used data from the National Longitudinal Survey of Youth 1997 to explore the relationship between high school experiences and economic and social mobility in adulthood. This survey tracks the life experiences and labor-market outcomes of a nationally representative group of children who were between 12 and 17 years old in 1997.³⁹ We used the full sample of survey respondents from 1997 through 2019, and for more than 85 percent of the initial sample, we could track the relationship between experiences in adolescence and later economic and social mobility.

Others have also analyzed this data and found that young people who experienced poverty had minimal earnings growth from ages 18 to 30, though those who earned a college degree during this time tended to have more mobility.⁴⁰

We wanted to dig deeper into the specific experiences that young people had before they turned 18—when they were in high school—that led to different economic and social outcomes in adulthood. We wanted to look both at detailed academic factors (such as grades, test scores, attendance, and participation in advanced classes) and a broad range of other factors (including career-connected experiences and students' expectations for their success).

We looked at a range of experiences reported by the survey subjects, their caregivers, and the schools they attended. Using statistical methods, we defined the types of experiences that young people experienced in 1997 and categorized the available data from the survey into four buckets. This is not a comprehensive list of everything that matters in each bucket, just a list of data that was available in the survey.



Academic experiences: Academic outcomes, behavior and attendance, perceptions of teachers and schools, and caregiver involvement



Peer social networks: Perceptions of peers' behavior and peers' plans for college attendance



Personal support: Students' and caregivers' expectations for success



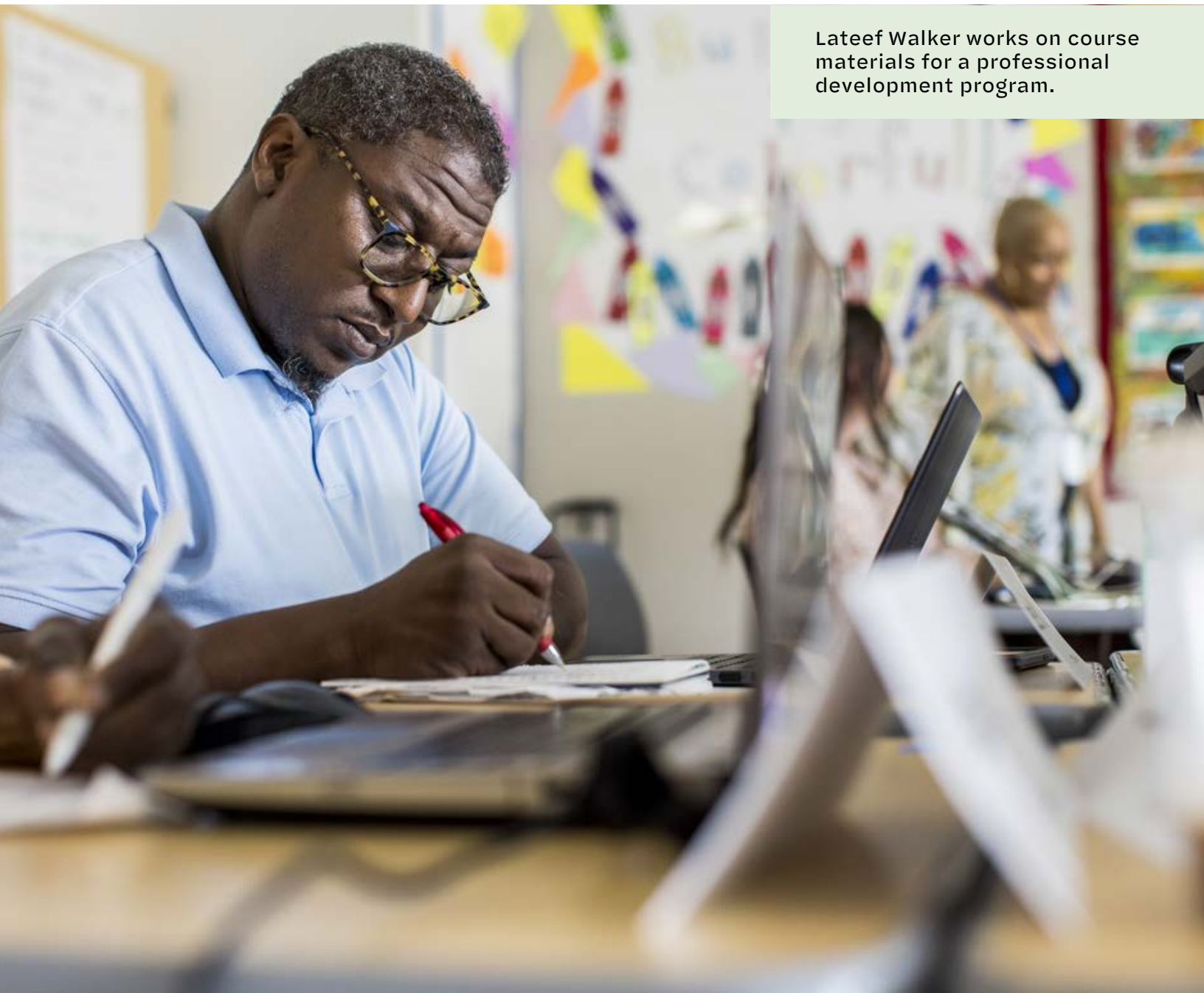
Career-connected learning: Work-based learning, occupational training and credentialing, vocational education, and dual enrollment

While this data did allow us to connect experiences in adolescence with economic and social outcomes in adulthood—a rarity in available data—it also came with some limitations. The survey doesn’t capture everything we think matters, like young people’s access to social capital or broader measures of personal support. It also reflects a certain moment in time. Some aspects of high school have changed since the late 90s, like approaches to career and technical education.⁴¹ Yet we believe that the basics of teaching and learning in our public schools are largely unchanged.

The children of the 90s also faced a different career landscape from today’s graduates, although both groups navigated major social

and economic changes. Graduates in the late 90s entered a workforce reshaped by the rise of social media, an online economy, and the global financial crisis of 2007–08. Today’s graduates will enter an economy in flux from the pandemic, digitalization, and the rise of generative AI.

Despite these caveats, we think the experiences of past graduates still hold relevant lessons for future ones. This data alone can’t tell us how to prepare graduates for the future of work, but it can provide a useful baseline to understand where to begin.



Lateef Walker works on course materials for a professional development program.

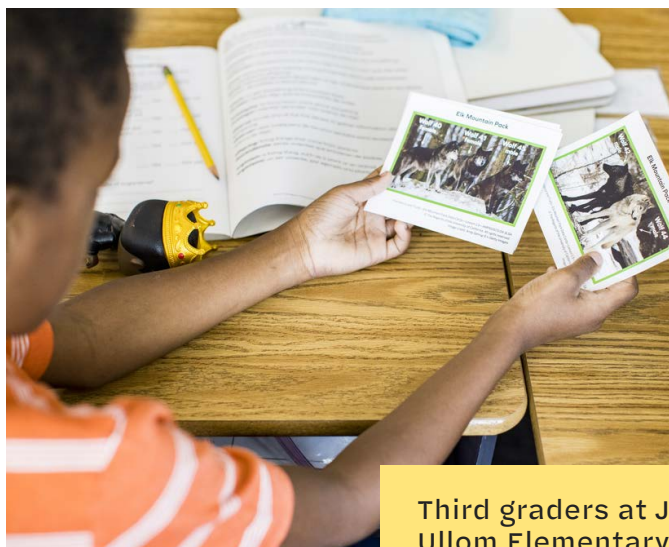
We used the following definitions for experiences in adolescence and mobility in adulthood:

Experiences in adolescence:

- **Young people experiencing poverty:** Young people whose household-adjusted family income in 1997 placed them in the bottom quartile of the U.S. income distribution. For a family of four, this would translate to an income of about \$40,000 or less (in 2023 dollars).
- **Strong academic outcomes:** A composite measure of academic achievement that combines grades, test scores, and participation in college-prep exams and advanced coursework (e.g., taking the SAT or AP courses). This measure reflects both the opportunities available (access to advanced courses) and what young people did with those opportunities (grades and test scores).

Economic and social mobility in adulthood:

- **Living wage:** The income that a full-time worker must earn to cover the costs of their family's basic needs. Unlike typical poverty thresholds, the living wage accounts for costs like childcare, healthcare, food, housing, utilities, and other necessities.⁴² We examined household income at age 30, relative to a living wage (about \$110,000 or more for a family with two children and two working adults in 2023 dollars).
- **Well-being in adulthood:** A composite measure of overall well-being that combines a respondent's self-reports of their financial, career, educational, social, physical, psychological, and emotional health. "High" or "above-average" well-being is defined as the top tercile of this composite measure.



Third graders at J.M. Ullom Elementary School in Las Vegas.

Learn More

For more details on our measures and methods, including more detailed findings, see the [Technical Appendix](#).

Acknowledgment

We are indebted to Noe Garza and Maria Martinez for sharing their stories with us eight years ago in [Room to Run](#), and deeply appreciate Noe speaking with us once again for this report.

About TNTP

As a leading education nonprofit since 1997, [TNTP](#) combines insight, courage, and action to conceive scalable solutions that address complex challenges from the classroom to the systems level. Today, we work side by side with educators, system leaders, and communities across 39 states and more than 6,000 districts nationwide to reach ambitious goals for student success. Our vision pushes beyond school walls, catalyzing cross-sector collaboration to create pathways for young people to achieve academic, economic, and social mobility.



Endnotes

- 1 Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Narang, J. (2017). The fading American dream: Trends in absolute income mobility since 1940. *Science*, 356(6336), 398-406. <https://doi.org/10.1126/science.aal4617>
- 2 This number reflects the openings estimate for May 2024 as of July 2, 2024. U.S. Bureau of Labor Statistics. (2024, July 2). *Job openings and labor turnover – May 2024* [Press release]. https://www.bls.gov/news.release/archives/jolts_07022024.htm
- 3 The Brookings Institution and the Urban Institute are just two examples of organizations that have been exploring variation in economic mobility. See, for example: Ross, M., Piña, G., Moore, K. A., Warren, J., & Bateman, N. (2023). *Diverging employment pathways among young adults*. Brookings Institution. <https://www.brookings.edu/articles/pathways-to-upward-mobility-overview/>; Chingos, M. & Furtado, Karishma. (2024). *What evidence could help schools put students on a path to economic mobility?* Urban Institute. <https://www.urban.org/research/publication/what-evidence-could-help-schools-put-students-path-economic-mobility>
- 4 Opportunity Insights. (2024). *Racial disparities: Racial disparities in income mobility persist, especially for men*. <https://opportunityinsights.org/race/>

Opportunity Insights. (2024). *Neighborhoods: Neighborhoods matter*. <https://opportunityinsights.org/neighborhoods/>
- 5 Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., & Narang, J. (2017). The fading American dream: Trends in absolute income mobility since 1940. *Science*, 356(6336), 398-406. <https://doi.org/10.1126/science.aal4617>
- 6 Achieve. (2015, July 2022). *Rising to the challenge: Views on high school graduates' preparedness for college and careers* [PowerPoint slides]. <https://www.achieve.org/publications/rising-challenge-survey-ii-powerpoint>

Casner-Lotto, J., & Barrington, L. (2006). *Are they really ready to work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century U.S. workforce*. The Conference Board, Inc., Partnership for 21st Century Skills, Corporate Voices for Working Families, & Society for Human Resource Management. <https://www.conference-board.org/publications/publicationdetail.cfm?publicationid=1218>

Cole, L., Short, S., Cowart, C., & Muller, S. (2021). *The high demand for durable skills*. America Succeeds. <https://americasucceed.wpengine.com/portfolio/the-high-demand-for-durable-skills-october-2021>; Williams, K. M., Wang, T., Holtzman, S., Leung, T. M., Cherfrere, G., & Ling, G. (2023). *Employer expectations of 21st-century high school graduates: Analyzing online job advertisements*. ETS Research Report Series, 2023(1), 1-19. <https://doi.org/10.1002/ets2.12365>

- 7 Cengage Group. (2023). *Graduate employability report: AI joins the workforce*. <https://cengage.widen.net/s/nvd6ghd8vl/final-cg-employability-survey-report-july2023>
- 8 Ferguson, S. (2024, June 24). Understanding America's labor shortage. U.S. Chamber of Commerce. <https://www.uschamber.com/workforce/understanding-americas-labor-shortage>
- von Wachter, T. (2020). The persistent effects of initial labor market conditions for young adults and their sources. *Journal of Economic Perspectives*, 34(4), 168-194. <https://doi.org/10.1257/jep.34.4.168>
- 9 For a list of other research using this survey, you can view an annotated bibliography on the U.S. Bureau of Labor Statistics National Longitudinal Surveys website (<https://nlsinfo.org/bibliography-start>), selecting the NLSY97 cohort from the search box.
- 10 Opportunity Insights. (2024). *Racial disparities: Racial disparities in income mobility persist, especially for men*. <https://opportunityinsights.org/race/>
- Opportunity Insights. (2024). Neighborhoods: Neighborhoods matter. <https://opportunityinsights.org/neighborhoods/>
- 11 Federal Interagency Forum on Child and Family Statistics. (2023). *America's children: Key national indicators of well-being, 2023*. U.S. Government Printing Office. https://www.childstats.gov/pdf/ac2023/ac_23.pdf
- 12 Corak, M. (2013). Income inequality, equality of opportunity, and intergenerational mobility. *Journal of Economic Perspectives*, 27(3), 79-102. <https://doi.org/10.1257/jep.27.3.79>
- 13 See, for example, Corak (2013) and Ross et al. (2023).
- 14 This estimate is based on the difference in 2005-06 enrichment spending reported in Figure 3, converted to 2023 dollars, from: Duncan, G. J., & Murnane, R. J. (2016). Rising inequality in family incomes and children's educational outcomes. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 2(2), 142. <https://doi.org/10.7758/rsf.2016.2.2.06>
- 15 Goldhaber, D., Quince, V., & Theobald, R. (2018). Has it always been this way? Tracing the evolution of teacher quality gaps in U.S. public schools. *American Educational Research Journal*, 55(1), 171-201. <https://doi.org/10.3102/0002831217733445>
- Patrick, K., Rose Socol, A., & Morgan, I. (2020). *Inequities in advanced coursework*. The Education Trust. <https://edtrust.org/resource/inequities-in-advanced-coursework/>
- 16 Mulhern, C. (2023). Beyond teachers: Estimating individual school counselors' effects on educational attainment. *American Economic Review*, 113(11), 2846-2893. <https://doi.org/10.1257/aer.20200847>
- 17 Morgan, I., & Amerikaner, A. (2018). *Funding gaps: An analysis of school funding equity across the US and within each state*. Education Trust. <https://edtrust.org/resource/funding-gaps-2018/>
- 18 Healey, K., & Stroman, C. (2021). *Structures for belonging: A synthesis of research on belonging*. Student Experience Research Network. <http://studentexperiencenetwork.org/wp-content/uploads/2021/03/Structures-for-Belonging.pdf>
- 19 For a summary of relevant experiences and the outcomes, see the Education-to-Workforce Indicator Framework: Gonzalez, N., Alberty, E., Brockman, S., Nguyen, T., Johnson, M., Bond, S., O'Connell, K., Corriveau, A., Shoji, M., Streeter, M., Engle, J., Goodly, C.,

- Neely, A. N., White, M. A., Anderson, M., Matthews, C. Mason, L., & Means, S. F. (2022). *Education-to-workforce indicator framework: Using data to promote equity and economic security for all*. Mathematica. <https://www.mathematica.org/publications/education-to-workforce-indicator-framework-using-data-to-promote-equity-and-economic-security>
- 20 See Healey & Stroman (2021).
- 21 See the summary of language and literacy development in the Education to-Workforce Indicator Framework (<https://www.educationtoworkforce.org/indicators/developmental-progress-language-and-literacy>) which is based on research from the following sources:
- Burchinal, M., McCartney, K., Steinberg, L., Crosnoe, R., Friedman, S. L., McLoyd, V., Pianta, R., & NICHD Early Child Care Research Network. (2011). Examining the Black–White achievement gap among low income children using the NICHD study of early child care and youth development. *Child development*, 82(5), 1404-1420. <https://doi.org/10.1111/j.1467-8624.2011.01620.x>
- Wang, A. H. (2008). A pre-kindergarten achievement gap? Scope and implications. *US-China Education Review*, 5, 23–31. <https://eric.ed.gov/?id=ED503007>
- 22 For an overview of the evidence on teacher diversity and student outcomes, see:
- Gershenson, S., Hansen, M., & Lindsay, C. A. (2021). *Teacher diversity and student success: Why racial representation matters in the classroom*. Harvard University Press.
- 23 Hoffman, N., Vargas, J., Hartung, K., Barrett, L., Cuevas, E., Sullivan, F., Mawhinney, J., & Nahar, A. (2021). *The big blur: An argument for erasing the boundaries between high school, college, and careers—and creating one new system that works for everyone*. JFF. <https://www.jff.org/idea/big-blur/>
- 24 We define a traditional college-degree path as enrolling in a four-year college. According to a January 2023 national survey of high school students, 52 percent intended to pursue a four-year degree and 25 percent planned on enrolling in a two-year college. Approximately 40 percent planned on pursuing on-the-job training (22%) or career and technical education (19%). For more detail, see:
- ECMC Group. (2023). *Question the quo: Gen Z teens have changed their priorities for education and work*. <https://www.ecmcgroup.org/news/group/report-gen-z-teens-have-changed-their-priorities-for-education-and-work>
- American Student Assistance. (2020). *Spotlight on high school internships: Opening doors to in-demand skills, social capital & greater career certainty*. <https://www.asa.org/research/spotlight-on-high-school-internships/>
- 25 YouScience. (2022). *How prepared are high school graduates for their next step?* <https://www.youscience.com/post-graduation-readiness-report/>
- 26 Callahan, J., Ito, M., Rea, S. C., & Wortman, A. (2019). *Influences on occupational identity in adolescence: A review of research and programs*. Connected Learning Alliance. <https://clalliance.org/publications/influences-on-occupational-identity-in-adolescence-a-review-of-research-and-programs/>
- 27 For more on definitions and evidence about durable skills, visit the America Succeeds durable skills website (<https://durablekills.org>) and see:
- Rios, J. A., Ling, G., Pugh, R., Becker, D., & Bacall, A. (2020). Identifying critical 21st-century skills for workplace success: A content analysis of job advertisements. *Educational Researcher*, 49(2), 80-89. <https://doi.org/10.3102/0013189X19890600>.

- 28 Fisher, J. F., & Charania, M. (2021). *5 steps for building and strengthening students' networks: Ensuring that every student graduates with the networks needed to thrive*. Christensen Institute. <https://www.christenseninstitute.org/publications/5-steps-for-building-and-strengthening-students-networks/>
- Chetty, R, Jackson, M. O., Kuchler, T., Stroebe, J., Hendren, N., Fluegge, R. B., Gong, S., Gonzalez, F., Grondin, A., Jacob, M., Johnston, D., Koenen, M., Laguna-Muggenburg, E., Mudekereza, F., Rutter, T., Thor, N. Townsend, W., Zhang, R., Bailey, M., ... Wernerfelt, N. (2022). Social capital I: Measurement and associations with economic mobility. *Nature*, 608(7921), 108–121. <https://doi.org/10.1038/s41586-022-04996-4>
- Gee, L. K., Jones, J., & Burke, M. (2017). Social networks and labor markets: How strong ties relate to job finding on Facebook's social network. *Journal of Labor Economics*, 35(2), 485–581. <https://doi.org/10.1086/686225>; and Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360–1380. <https://doi.org/10.1086/225469>.
- 29 Fisher, J. F., & Fisher, D. (2018). *Who you know: Unlocking innovations that expand students' networks*. Jossey-Bass.
- 30 See Fisher & Fisher (2015) and: Kraft, M. A., Bolves, A. J., & Hurd, N. M. (2023). How informal mentoring by teachers, counselors, and coaches supports students' long-run academic success. *Economics of Education Review*, 95, 1024111. <https://doi.org/10.1016/j.econedurev.2023.102411>.
- 31 Abelman, R., & Molina, A. (2001). Style over substance revisited: A longitudinal analysis of intrusive intervention. *NACADA Journal*, 21(1-2), 32–39. <https://doi.org/10.12930/0271-9517-21.1-2.32>; and Anderson, M. B. L., Bridges, B. K., Harris, B. A., & Biddle, S. (2020). *Imparting wisdom: HBCU lessons for K-12 education*. Frederick D. Patterson Research Institute, UNCF. https://cdn.uncf.org/wp-content/uploads/Imparting-Wisdom-final.pdf?_ga=2.900093979.1472460319.1579625112-705518191.1548876069
- 32 For an overview of the program, visit the City University of New York's Accelerated Study in Associate Programs (CUNY ASAP) website (<https://www1.cuny.edu/sites/asap/about/>). For a review of the evidence, see: Weiss, M. J., Ratledge, A., Sommo, C., & Gupta, H. (2019). Supporting community college students from start to degree completion: Long term evidence from a randomized trial of CUNY's ASAP. *American Economic Journal: Applied Economics*, 11(3), 253–297. <https://doi.org/10.1257/app.20170430>
- 33 Aspen Institute. (2022). *We are what we teach: re-envisioning public education for a just, free, and prosperous America*. <https://www.aspeninstitute.org/publications/we-are-what-we-teach-re-envisioning-public-education-for-a-just-free-and-prosperous-america/>
- 34 Murmuration & Walton Family Foundation. (2022). *Looking forward with Gen Z: A Gen Z research report*. <https://nextgeninsights.waltonfamilyfoundation.org/resources/looking-forward-with-gen-z/>
- 35 Shapiro, S., & Brown, C. (2018). *The state of civics education*. Center for American Progress. <https://www.americanprogress.org/article/state-civics-education/>
- 36 Hillygus, D. S., & Holbein, J. B. (2023). Refocusing civic education: Developing the skills young people need to engage in democracy. *The ANNALS of the American Academy of Political and Social Science*, 705(1), 73–94. <https://doi.org/10.1177/00027162231177798>; and Levine, P., & Kawashima-Ginsberg, K. (2017). *The Republic is (still) at risk—and civics is part of the solution: A briefing paper for the Democracy at a Crossroads*

National Summit. Jonathan M. Tisch College of Civic Life, Tufts University. <https://civxnow.org/wp-content/uploads/2021/09/SummitWhitePaper.pdf>; and Schueler, B. E., & Larned, K. E. (2023). Interscholastic policy debate promotes critical thinking and college-going: Evidence from Boston Public Schools. *Educational Evaluation and Policy Analysis*, 0(0). <https://doi.org/10.3102/01623737231200234>;

the most recent survey year for which data have been released (2019). For the poverty measure, we rely on the ratio of family income to poverty thresholds by household size. Percentile rankings are weighted according to sample weights for full NLS participation.

- 37 Duncan, G. J., & Murnane, R. J. (2011). Introduction: The American dream, then and now. In G. J. Duncan & R. J. Murnane (Eds.), *Whither opportunity? Rising inequality, schools, and children's life chances*. Russell Sage Foundation.
- 38 Reference to come from forthcoming TNTP research. Subscribe to see the report in fall 2024 <https://tntp.org/subscribe/>
- 39 For more details about the NLSY97, see <https://nlsinfo.org/content/cohorts/NLSY97>. Approximately three quarters of the 8,984 children initially interviewed have data through

- 40 Ross, M., Piña, G., Moore, K. A., Warren, J., & Bateman, N. (2023). *Diverging employment pathways among young adults*. Brookings Institution. <https://www.brookings.edu/articles/pathways-to-upward-mobility-overview/>
- 41 Ecton, W. G., & Dougherty, S. M. (2023). Heterogeneity in high school career and technical education outcomes. *Educational Evaluation and Policy Analysis*, 45(1), 157-181. <https://doi.org/10.3102/01623737221103842>
- 42 For more detail about what the Living Wage entails, visit <https://livingwage.mit.edu/pages/faqs>