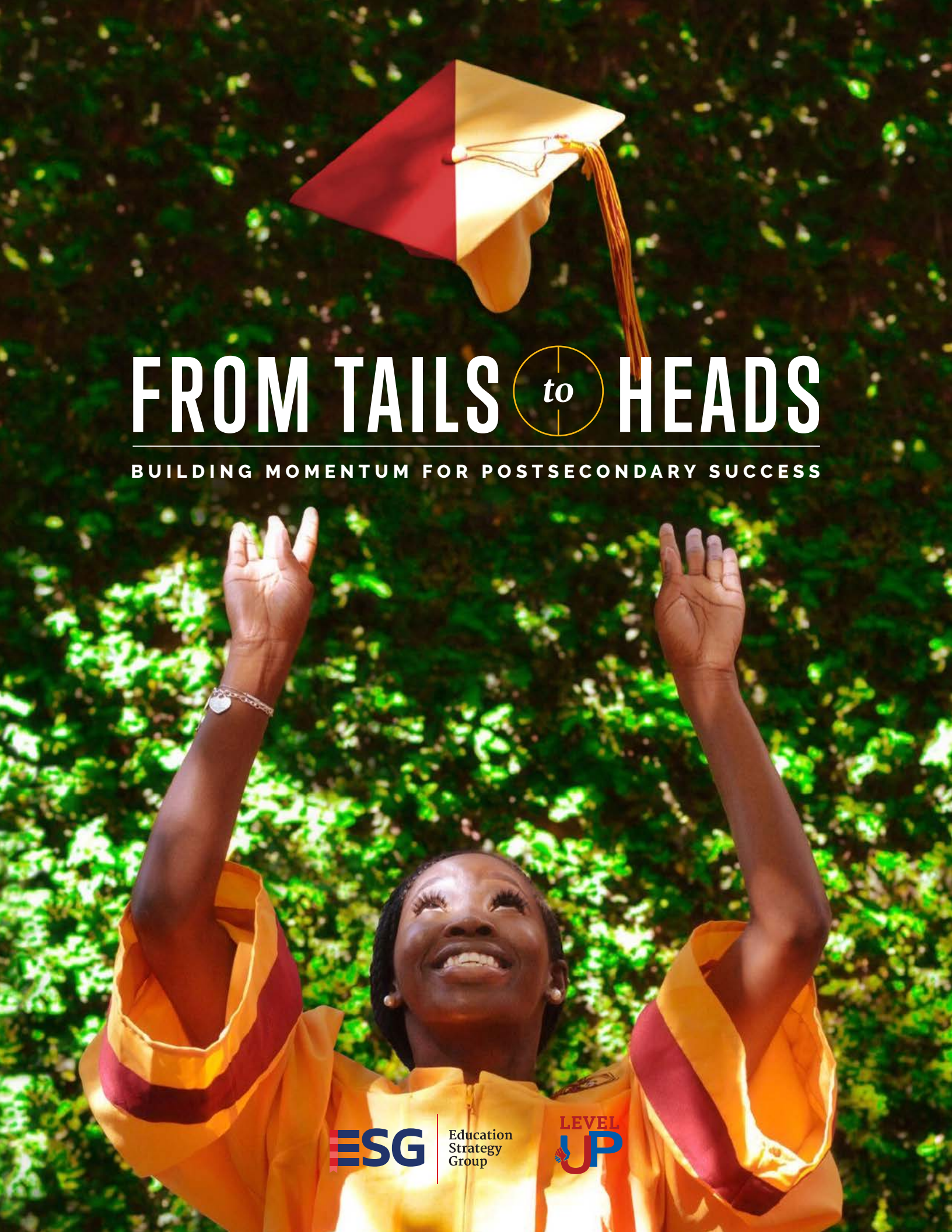

FROM TAILS to HEADS

BUILDING MOMENTUM FOR POSTSECONDARY SUCCESS

ESG Education Strategy Group

LEVEL UP

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A COIN FLIP CAN CHANGE A KID'S LIFE.

Two kids, born across the street, attend two very different high schools. One sends nearly 72 percent of their Black students to higher education, the other one 45 percent. This story plays out across the United States. It's not fair. And it does not need to be this way. No one's chances for economic mobility should come down to a coin flip. Yet, we estimate that there are at least 7,000 "coin flip" high schools where if you are Black, Hispanic, or from a low-income family, your chance of proceeding into higher education directly after high school is less than 50 percent. A coin flip.

We know all too well that it is not actually chance that influences student outcomes, but rather long-standing systemic barriers that limit access and opportunity for Black and Hispanic students and those from low-income families. The differences in outcomes between student groups are certainly troubling, and must be overcome. At the same time, we must also recognize that students from the same backgrounds are experiencing vastly different journeys through education and into employment. We need to examine both why students of color and those from low-income families too often receive the tail-end of opportunity and learn from places that have flipped students' trajectory in a positive, life-altering way.

WE NEED TO EXAMINE WHY STUDENTS OF COLOR AND THOSE FROM LOW-INCOME FAMILIES TOO OFTEN RECEIVE THE TAIL END OF OPPORTUNITY AND LEARN FROM PLACES THAT HAVE FLIPPED STUDENTS' TRAJECTORY.

There are schools, districts, charter networks, and states across the country that have turned the history of inequitable outcomes on its head. They are laser focused on a set of "leading" metrics that are predictive of students' postsecondary enrollment and success. Armed with data, they are making substantial changes in how they serve students of color and low-income students. In the current humanitarian and economic crisis, postsecondary education can and must be the nation's priority to accelerate recovery and deliver economic mobility to our most vulnerable populations. Now is the time for districts and states to learn from their peers and commit to monitoring and intervening on a new set of postsecondary "Momentum Metrics" so that, collectively, the country can flip the trajectory of postsecondary preparation and success for millions of students.

THE COVID-19 ROADBLOCK

The COVID-19 crisis is responsible for immense individual and societal turmoil. Beyond the dramatic impacts on health and safety across the country, the crisis has deterred students' progress on their educational journeys, hindered economic mobility, and exacerbated racial/ethnic and income gaps in academic achievement and engagement. The damage is deep and will likely be felt for years to come.

In another 10 years, if projections about postsecondary enrollment hold, we are likely to refer to the high school graduating class of 2020 (and potentially 2021 and beyond) as the nation's lost cohort. In prior years, roughly one million students graduated high school and did not move on to some postsecondary education and training each year.[1] Unfortunately, that "leak" in our education pipeline is likely to become a flood; and the students that make up that flood are most likely to be students of color and those from low-income families. Without immediate intervention, the promise of economic mobility through education may become a mirage for far too many youth.

WITHOUT IMMEDIATE INTERVENTION, THE PROMISE OF ECONOMIC MOBILITY THROUGH EDUCATION MAY BECOME A MIRAGE FOR FAR TOO MANY YOUTH.

This is happening at a time when earning a postsecondary credential is the surest path to economic opportunity. Even before the COVID-19 crisis, nearly every job created since the last recession required some postsecondary education or training.[2] Coming out of that recession and through the recovery, individuals with greater levels of education experienced less job loss and returned to pre-recession wages quicker than their peers.[3]

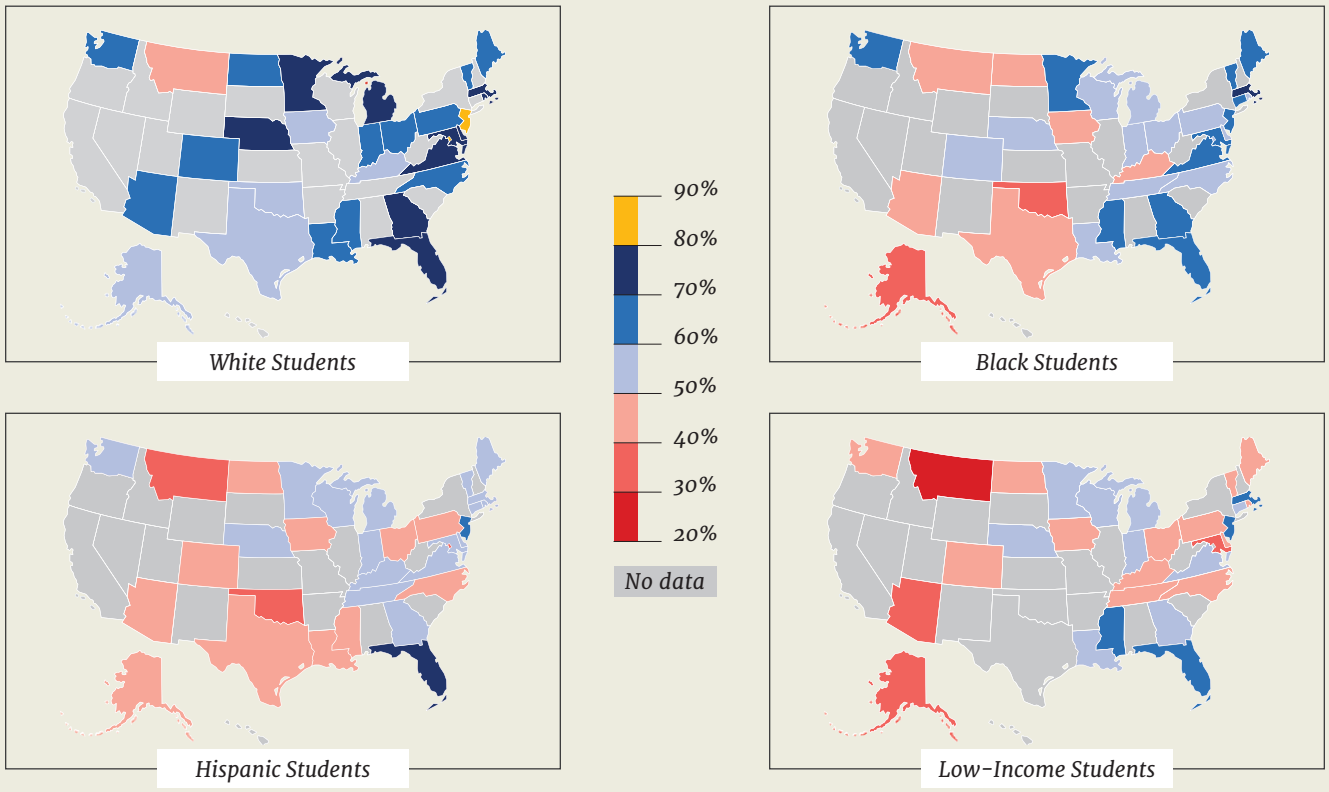
While there is significant uncertainty about how the economy will shift in response to the current economic downturn, it is already clear from early data that occupations that require the least amount of education are those that are disappearing the quickest.[4] The contraction in retail, hospitality, and support sectors will likely be coupled with increased automation as industries recover, meaning fewer jobs and a harder path to economic mobility for those without high-quality postsecondary credentials.

INEQUITABLE ACCESS TO POSTSECONDARY EDUCATION

Over the past decade, the national postsecondary attainment rate has grown—across all races and ethnicities—yet gaps remain. In the United States, 47.9 percent of White adults between the ages of 25 and 64 hold a postsecondary credential, compared to 31.6 percent of Black and 24.5 percent of Hispanic adults. The gaps in postsecondary attainment rates hold in every state in the nation, with fairly sizable differences in overall and subgroup attainment. For instance, nationally, Black attainment lags that of White peers by more than 16 percentage points overall, but the state-by-state differentiation ranges from no gap to gaps of nearly 60 percentage points.[5] There are many contributing factors to the difference, such as net migration, state economies, and population centers that attract highly educated individuals. Yet, those mask the most important factor for the deep inequities: K-12 and higher education systems that have both historically placed barriers to access and success on students of color and those from low-income families.

One big element in the difference in postsecondary attainment across student groups and geographies that often goes unseen and undiscussed is the divergent rates of postsecondary enrollment of students directly after high school graduation. To better understand the role that postsecondary access plays in attainment, especially among students of color and low-income students, Education Strategy Group (ESG) examined data on postsecondary enrollment from every state that provides disaggregated data. To compile that information, we sought out publicly-available data sets, and when not available, we submitted official data requests to the state education and/or higher education agency.[6] We requested both state- and school-level disaggregated data on "seamless" enrollment—namely, enrollment in the fall directly after high school graduation. For a variety of reasons, which are discussed in the Appendix, we were only able to obtain disaggregated data at the state level for 32 states and the District of Columbia and school-level data for 27 states. To improve the consistency of our analyses, we ultimately considered enrollment in any

FIGURE 1 PERCENT OF HIGH SCHOOL GRADUATES ENROLLING IN A POSTSECONDARY INSTITUTION WITHIN 12 MONTHS



postsecondary institution within 12 months of high school graduation for 2017. Despite lacking a complete national picture, the disparities in postsecondary access remain stark.

When examined as state averages, the differences are glaring. When reviewed at a school level, the gaps are even more troubling. In the states for which we received school-level data, there are more than 1,300 high schools where Black students have less than a 50 percent chance of postsecondary enrollment within a year of high school graduation. There are over 1,700 high schools where that is the case for Hispanic students, and nearly 3,600 high schools for low-income students. Given the data limitations, our sample represents just over half of all high schools in the United States. If we are to extrapolate our findings to represent all high schools in the country, the numbers would be even more staggering. We project that nationally there are roughly 7,000 high schools where Black, Hispanic, and/or low-income students have less than a 50 percent chance of enrolling in postsecondary education within a year of graduating. Over the past decade, through significant efforts, the country has cut in half the number of "dropout factories." Now it's time to turn our attention to the "coin flip" high schools.

OVER THE PAST DECADE, THROUGH SIGNIFICANT EFFORTS, THE COUNTRY HAS CUT IN HALF THE NUMBER OF "DROPOUT FACTORIES." NOW IT IS TIME TO TURN OUT ATTENTION TO "COIN FLIP" HIGH SCHOOLS.

SUCCESS IS POSSIBLE

In every state, there are high schools that far outperform the state average in the percentage of Black, Hispanic, and low-income students who enroll in postsecondary education directly after high school. In a future report, we intend to take a deep dive into what's working in a handful of schools across the country and consider how the district and state policies and support environment contribute to that success.[7] What we do know is that there are many districts and charter networks making dramatic gains in the number of students—especially students of color and those from low-income families—enrolled and succeeding in higher education.

In just over a decade, Chicago's efforts to improve the rates of high school students "on track" to high school graduation have contributed to significant increases in postsecondary enrollment and retention. The postsecondary enrollment rate for Chicago Public Schools graduates increased by 20 percent during that time, with improvements seen for every racial/ethnic group.[8] Charter networks, such as KIPP, IDEA, and Noble—highlighted in great detail in Richard Whitmire's *The B.A. Breakthrough*—have led the charge to help prepare their students for the rigors of postsecondary education, and expand their advising and support reach past college matriculation. And new efforts to leverage cross-district expertise, such as the Bill & Melinda Gates Foundation's To & Through Advising[9] districts and the California CORE districts, are demonstrating the power of prioritizing a small set of indicators to illuminate preparation gaps and target appropriate supports.

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Some of these gains are likely the result of external pressure from the public and policymakers, boards and funders, and accountability systems. In particular, the pressure to track and publicize student outcomes beyond high school, disaggregated by student group, has been foundational for closing equity gaps and increasing student success. These efforts are critical and should continue. Even more can and should be done to empower educators and administrators with data to increase the odds of long-term student success.

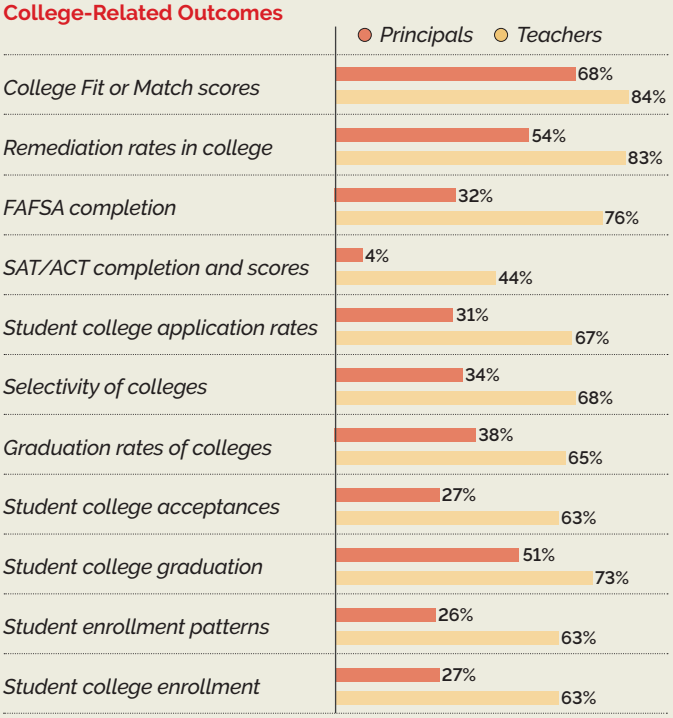
DATA TO EMPOWER AND SUPPORT

The experiences of schools, districts, and states shared in this report to dramatically increase students' postsecondary preparation, transitions, and success all rest on one major theme: data access. Without student-level information, educators and advisors will struggle to provide targeted supports. Without disaggregated information at the school, district, or state level, policymakers and administrators will struggle to rectify gaps across races/ethnicities, income levels, and geographies. School, district, and state leaders need data to enact change. Significantly more work needs to be done to ensure data on students' progress to and through postsecondary education, training, and the workforce are broadly available.

Only 32 states include postsecondary enrollment rates on their federally-required school report cards. And only 16 of those include a breakdown by subgroup.[10] The number of states publishing these data are growing over time; however, major hurdles remain to ensure that educators and administrators can use the data for improvement. The Data Quality Campaign has tracked the public availability of key data on school report cards for the past few years and found that states have made considerable progress in making the information easier to find and use and including critical metrics across a student's educational journey.[11] Beyond those publicizing information on postsecondary transitions, states have begun to include additional measures such as FAFSA completion (i.e., Louisiana, North Dakota, South Carolina) and enrollment in remedial coursework (i.e., Georgia, Illinois, North Dakota) on their school report cards.

And yet, based on recent surveys of teachers and principals, **far too many practitioners lack access to data on the postsecondary outcomes of their graduates, let alone more nuanced measures like some of those suggested in this report.**[12] Data from a RAND Corporation survey are illuminating.

Educator Reports Of Having No Access To Data On Students' College-Related Outcomes



Source: RAND Corporation, 2020

For recommendations on how districts and state leaders can support students' postsecondary access and success through data access and transparency, see the final section of this report. As individual student-level data becomes more available to educators and administrators, it is critical that states and districts take steps to ensure appropriate privacy safeguards for that information. The Data Quality Campaign has a number of valuable resources on safeguarding student data.[13]

THE PREDICTIVE POWER OF TRANSITION METRICS

This report seeks to lay out a framework for a new set of postsecondary transition metrics for states and communities to prioritize. Collectively the "Momentum Metrics" represent eight of the most predictive indicators of postsecondary preparation, retention, and success. The metrics are first and foremost designed to help educators and administrators target resources and supports at the individual student level. Helping students complete each of the individual identified steps will help them access and succeed in higher education in the long run. At the same time, aggregating the metrics at the school, district, or even state level may be helpful for organizing broader conversations about advising policies and programs. It is important to note that we are offering this set of metrics in the spirit of improvement, not accountability. We are strong supporters of including meaningful measures of college and career readiness and postsecondary outcomes in high school accountability systems and have tracked state efforts in that area. For the recommended metrics in this report, we believe benchmarking and tracking progress should be done in the spirit of a flashlight, not a hammer.[15]

To prepare this report, ESG paired research on the predictive power of the metrics with lessons from leaders in the field. While there are a significant number of metrics that could be included in these recommendations, we narrowed down to the recommended metrics based on the following criteria:

AVAILABLE

The data are readily available to K-12 educators, counselors/advisors, and administrators. For instance, there are many elements of financial literacy that are critical for postsecondary success, yet measures for capturing student knowledge in these areas are limited, and thus did not make the list. On the other hand, FAFSA completion data are available weekly and have a considerable impact on student's ability to afford postsecondary education and training.

TIMELY

Users have access to the data on a timeline that enables direct action. Learning about six-year postsecondary completion rates is a critical measure for understanding students' long-term success; however, it does not provide practitioners with information that can be acted upon immediately. Data on students' advanced coursework potential, on the other hand, enables administrators to ensure that courses are available and supports counselors in scheduling students into those opportunities.

ACTIONABLE

Immediate intervention to increase the metrics is possible. Knowledge of postsecondary and workforce outcomes six to eight years after high school graduation are tremendously valuable for monitoring system success, but do not necessarily help target interventions to students in real time. Districts such as Chicago Public Schools have shown that educators and administrators can offer supports in ways that have immediate impact on students' course grades and credit accrual.

Further, we recommended specific definitions for the identified metrics. These are intended to be a guide based on our perspectives of what can be most useful for supporting interventions. It is important to note that how a state or district defines the cohort to be included in the calculation may alter how the information can be used. For instance, from a system perspective, there is value in considering seamless enrollment based on the 9th grade cohort. That can provide a more nuanced view of where students are lost across the full high school to higher education pipeline. Yet, it does make it more difficult for action at the practitioner level since the measure spans multiple years. For that particular measure, we have suggested a focus on the enrollment patterns of high school seniors to get at the explicit need for a focus on "summer melt." That being said, changes in the number and types of graduates each year will impact the seamless enrollment calculation (i.e., more graduates may result in lower seamless enrollment rate). Local practitioners would likely understand that context and take it in consideration as a component of continuous improvement. Yet, if that measure was examined from a system accountability perspective, it could result in problematic interpretations, without additional context. Ultimately, the intended audience for a measure will have significant bearing on how best to define the cohort to be examined.

Through a deep focus on the metrics that matter and attention to the supports necessary to help students navigate the high school to higher education maze, districts, states, and the country as a whole can eliminate the coin flip high school phenomenon and enable economic mobility for millions more students.

THE MOMENTUM METRICS

This framework is organized around three key phases of a student's transition from high school to college: preparing, applying, and enrolling. By grounding the data in the student experience, we aim to emphasize the relevance and importance of each metric in opening doors to postsecondary opportunity for all students. These metrics are not meant to exist solely in a spreadsheet, database, or annual report. To truly move the needle, we encourage state, district, and school leaders to:

(1) Build systems to track student progress in meeting each metric, disaggregated by race/ethnicity and income status to examine disproportionality;

(2) Set short- and long-term targets for the metrics;

(3) Direct interventions to support students and address gaps; and

(4) Change institutional policies and practices that stand in the way of student success.

The systems that do more than just make the data available are the ones likely to see the most success. In the final section of this report, we provide a detailed list of actions that states and district leaders can take to use the metrics as a key strategy to increase postsecondary access and success.

For each of the Momentum Metrics below, we provide a definition for how to measure it; a research-driven explanation of why it is an important indicator of student success; and spotlights of states, systems, and institutions that serve as models for how to prioritize and develop supports around it.

PREPARING	*9th-Grade GPA*	*Potential for Advanced Coursework*	*High-Quality Pathway Participation*
APPLYING	*College Application*	*FAFSA Completion*	*College Match*
ENROLLING	*Seamless Enrollment*	*Gateway Course Completion*	

1 PREPARING

To build a strong foundation for postsecondary success, it is essential that students start high school on the right foot.

Beginning in 9th grade, they should aim to achieve a strong grade point average in a rigorous set of courses that are aligned with college readiness standards. To build early momentum toward accumulating postsecondary course credit, students who have been identified as having the potential to succeed in advanced coursework should enroll in Advanced Placement, International Baccalaureate, or dual or concurrent enrollment courses. For students participating in career pathways, they should concentrate in a high-demand industry aligned with local labor market needs, have the opportunity to engage in work-based learning opportunities, and earn credentials valued by employers. The establishment of a solid academic foundation in high school increases the likelihood of postsecondary success.

METRIC ONE: 9TH-GRADE GPA

DEFINITION

The percentage of students who have achieved at least a 3.0 GPA at the end of their 9th-grade year

Number of first-time 9th-grade students with a GPA ≥3.0

÷

Number of first-time 9th-grade students

WHY IT MATTERS

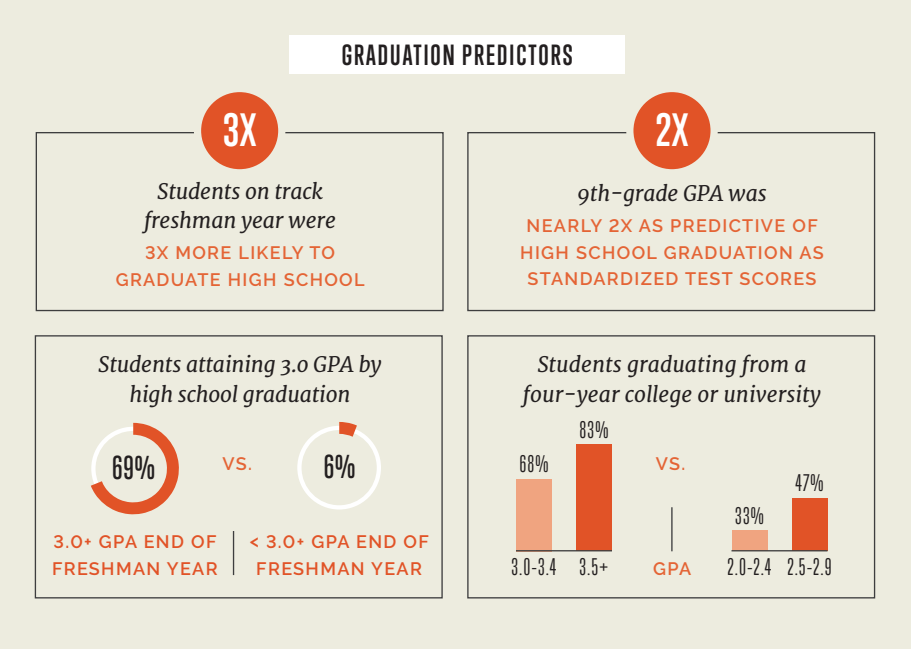
Numerous studies have shown that GPA is a better predictor of postsecondary success and less discriminatory than standardized test scores.[16] And 9th-grade GPA, in particular, has been found to be predictive of 11th-grade GPA, postsecondary enrollment, and first-year retention.[17] High schools may use GPA to qualify students for advanced coursework (such as Advanced Placement, International Baccalaureate, and dual enrollment), and colleges consider GPA when making admissions, scholarship, and course placement decisions. Given these wide-ranging implications, the significance of achieving a strong high school GPA is paramount. While it is worthwhile to track GPA throughout a student's high school career, by focusing specifically on tracking 9th-grade GPA, schools, districts, and states can prioritize early interventions and supports for the students who are most at risk of falling behind. With the gaps in academic preparation exacerbated by the COVID-19 crisis, the shift by higher education institutions to consider GPA in place of standardized assessments for admissions and placement in light of SAT and ACT cancellations, and the likelihood that incoming 9th graders will face a non-traditional start to their high school experience, prioritizing 9th-grade GPA will ensure that students start high school on the right track.

PUTTING THE METRIC INTO ACTION

In recent years, districts and charter networks across the country have recognized the importance of ensuring that students start their high school careers on the right foot and, in response, have designed and implemented programs targeted specifically towards 9th graders. For example, as part of the To & Through Project, **Chicago Public Schools (CPS)** partnered with the University of Chicago to conduct rigorous research on the factors that impact college success for the district's students. They found that students who were "on track" during their freshman year (defined as earning at least five course credits and failing no more than one semester of a core course) were three times more likely to graduate from high school than their off-track peers, and 9th-grade GPA was nearly twice as predictive of high school graduation as standardized test scores.

In addition, students who did not end their freshman year with a 3.0 GPA or above had a difficult time attaining one by the time they graduated. Students who graduated with less than 3.0 GPA were significantly less likely to attain a postsecondary credential. Leveraging these findings, CPS developed a rapid reporting system to alert schools of 9th-grade students with low grades, and some schools appointed "on-track coaches" to intervene with tutoring programs, peer mentors, and after-school help sessions. CPS also hosts a month-long "Freshman Connection" for students who may be at risk of not graduating. The program features half-day lessons on topics such as organization and goal-setting, as well as academic instruction in English language arts and mathematics. As a result, freshman on-track rates have increased from 65 percent in 2008–2009 to 89 percent in 2017–2018.

Uncommon Schools, a charter network in New York and New Jersey, developed a program called "Target 3.0," a mandatory class to boost the grade point averages of all students with a GPA below a 2.5. Uncommon developed the program after analyzing their data and recognizing that "getting above a 3.0 GPA was very significantly correlated with future college success."



With 54 percent of their alumni earning a bachelor's degree within six years, Uncommon predicts that they will close the college graduation gap between low- and high-income students within the next four years, with the goal of 70 percent of students attaining a postsecondary degree within the next six years.

A handful of states include a 9th grade on-track measure in their high school reporting and accountability systems. For example, in **Illinois,** 9th-grade on-track accounts for 6.25 percent of a school's score on the state report card. In the past five years, the state has seen a four percentage point increase in 9th-grade on-track rates, with 87 percent of 9th-grade students considered on-track in 2019.

CONSIDERATIONS

- To what extent are there standard course completion requirements and/or grading expectations within and across schools/districts?
- Who has access to student-level GPA data (e.g. teachers, administrators, district personnel, academic support partnership staff)? Who should have access?
- What are the existing disparities, if any, in GPA for students of color and low-income students?
- In what courses are students receiving the lowest grades? To what extent are students' 8th grade assessment scores predictive of grades in particular courses?

METRIC TWO: POTENTIAL FOR ADVANCED COURSEWORK

DEFINITION

The percentage of students who have shown potential to be successful in advanced coursework who have successfully completed at least one course

Number of graduating seniors identified with "potential" and completed an advanced course

÷

Number of graduating seniors who were identified with advanced course potential two years prior (i.e., at the end of 10th grade)

WHY IT MATTERS

Participation in early postsecondary opportunities—Advanced Placement (AP), International Baccalaureate (IB), and dual enrollment—has been shown to increase high school graduation, postsecondary enrollment, and college persistence rates.[19] Yet, significant gaps in access exist for low-income students and students of color. White students are twice as likely to participate in dual enrollment courses than their Black and Hispanic peers.[19] These gaps exist despite the fact that the country

has improved tools to identify students who can succeed in advanced coursework. For instance, "AP Potential," developed by the College Board, identifies students who are predicted to have a greater than 60 percent chance of earning a passing score on a particular AP exam based on their performance on the PSAT or SAT.[20] Similar metrics can be developed using state assessment data and/or course grades for projecting potential for success with dual enrollment, industry-recognized credentials, IB, or other options that enable a student to earn early postsecondary credit while in high school. For instance, Equal Opportunity Schools has found success in using non-test-based methods for predicting advanced course potential, especially among students of color.[21]

PUTTING THE METRIC INTO ACTION

San Antonio Independent School District (SAISD) leveraged the data in the College Board's AP Potential report to generate a series of customized reports that list the potential to succeed for every student at every high school campus for every AP course offered by the College Board.[22] Rather than simply using the binary definition of AP Potential—either a student has potential or does not—SAISD went further by grouping students into 10 percentage point bands, starting at having a zero to 10 percent chance of passing the AP exam in a given course prior to enrolling to having a 90 to 100 percent chance.

The school-level report lists the potential for all incoming students to help guide their advising practices around enrollment in advanced coursework, with school counselors targeting outreach to students who were identified with potential. Schools also use this report to make decisions about course offerings, adding courses with high numbers of students with the potential to succeed and removing—or finding alternate delivery options, such as dual enrollment—those with low numbers of students identified with potential. For example, seven campuses in SAISD are planning to offer AP Computer Science Principles this year after seeing the high numbers of students identified with potential, whereas the district no longer offers AP Physics and instead encourages interested students to take courses through dual enrollment. Schools also receive a report card for successful AP enrollment, which lists the number of students identified with potential for each course and the percentage of students who actually enrolled, to hold them accountable for enrolling students.

At the state level, the **Connecticut State Department of Education (CSDE)** has launched an AP activation campaign to encourage students identified with potential to enroll in advanced coursework.[23] Each year, the Commissioner sends a signed letter directly to every 10th and 11th grade student identified with AP Potential. Since starting the campaign, the state has seen an increase in the number of students enrolling in AP coursework, as well as in taking and passing AP exams. In 2019, nearly half of the state's students participated in at least one AP course, an increase of 64 percent in the last decade, with the percentage of students receiving a 3 or higher on AP exams seeing a nearly mirror increase of 61 percent. For Hispanic students, the growth in AP participation has soared in the past decade by over 231 percent.

Meeting college and career readiness benchmarks—for AP, defined as scoring a 3 or higher on the exam—is part of the statewide accountability system, thereby incentivizing schools to prioritize advanced coursework. CSDE encourages districts to use the AP Potential as a tool to advise students on their advanced coursework options.

CSDE has also developed an AP Uniform Credit policy, in partnership with the state's public higher education institutions, that ensures that students will receive postsecondary course credit for receiving a passing score on an AP exam. This policy is supported by a data-sharing agreement between CSDE and higher education institutions that automatically shares student data on their performance on AP exams and the SAT, eliminating the need for students to request scores to be sent.

To break down historic access barriers, **Washington** became the first state in the nation to adopt an automatic enrollment policy for advanced mathematics, English language arts, and science classes in all high schools. The policy, known as Academic Acceleration, automatically places students who meet standards on state-level exams in the next more rigorous course in the corresponding content area. While intended to increase access to advanced coursework for all students, the policy is particularly aimed to support students who have been historically underrepresented.

CONSIDERATIONS

- How is the state measuring and tracking advanced course potential and communicating that information to schools and districts so that they can support individual students? What non-test-based ways are used to identify students with potential?
- What information or tools are provided to principals and counselors so that they can appropriately enroll students with potential in advanced courses?
- How equitable is access to advanced coursework across student populations?
- In what courses do students show the greatest or least potential? How are course offerings and scheduling shifting to reflect those realities?
- What supports are available to students once they enroll in an advanced course to ensure their success?

METRIC THREE: HIGH-QUALITY PATHWAY PARTICIPATION

DEFINITION

Of students who participate in career and technical education (CTE) coursework, the percentage that concentrate in an in-demand pathway, as defined by regional labor market data

Number of CTE concentrators in pathways aligned to top occupations

÷

Number of CTE concentrators

WHY IT MATTERS

While career and technical education programs have historically been viewed as an alternative to college, the implementation of high-quality pathway programs across the country have begun to change that narrative. These high-quality pathway programs seamlessly integrate rigorous, skills-based curricula with aligned work-based learning opportunities, and provide students with the opportunity to earn high-value industry-recognized credentials and, in some cases, early postsecondary course credit to propel them towards a postsecondary credential. Students that complete

a high-quality pathway—particularly low-income and male students—are more likely to graduate from high school, attend a two- or four-year postsecondary institution, and receive higher compensation after high school.[24] However, not all pathway programs are made equal. Some pave the way to further education and training and ultimately lead to viable careers; others are more dated and no longer provide access to quality options. Particularly in the current climate of economic recovery, it is essential that states, districts, and schools implement pathway programs that are not just responsive to the immediate needs of the local labor market, but are also looking at where the labor market is likely to head in the future. Education leaders should analyze labor market data and partner closely with employers to design and adapt pathway programs that equitably equip students for success.

PUTTING THE METRIC INTO ACTION

Kentucky has systematically analyzed labor market information to identify the top five priority industry sectors and specific fields within them that meet rigorous skill, demand, and wage thresholds. The state has brought together K-12 districts, postsecondary institutions, and employers to design career pathways that meet the needs of the identified industries. The Department of Education tracks district-by-district pathway offerings to examine alignment to the high-demand industry sectors. It also reviews the number of juniors and seniors concentrating in pathways leading to the top occupations in those high-demand pathways. Both measures are captured on a "heat map" and used to target assistance and bring transparency to the state's work (see Figures 2 and 3). At the same time, as part of the program approval process, the Department of Education disallows local districts from using state or federal funds to support pathways that are not aligned with these priority industries and occupations. That policy has been key to phasing out pathways that lack labor market relevance.

FIGURE 2

PERCENT OF PATHWAYS OFFERED BY KENTUCKY SCHOOL DISTRICTS LEADING TO TOP OCCUPATIONS IN HIGH-DEMAND INDUSTRY SECTORS

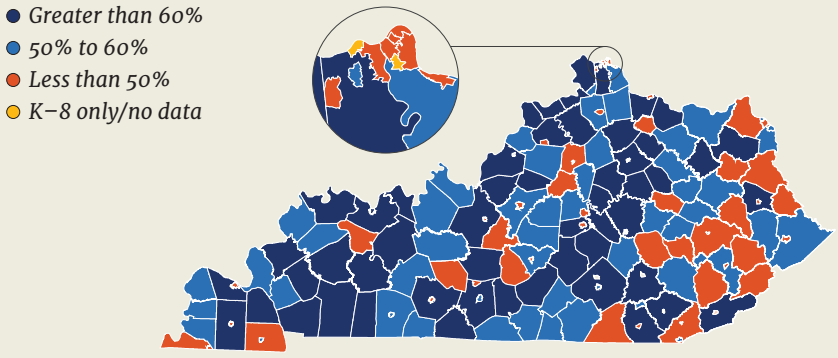
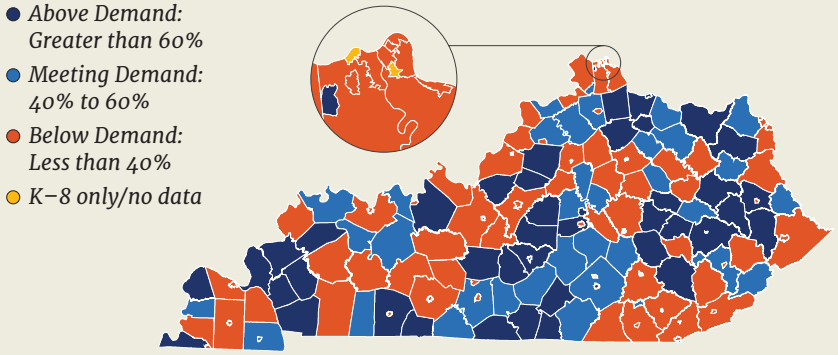


FIGURE 3

PERCENT OF KENTUCKY JUNIORS AND SENIORS CONCENTRATING IN PATHWAYS LEADING TO TOP OCCUPATIONS IN HIGH-DEMAND INDUSTRIES



EDUCATION LEADERS SHOULD ANALYZE LABOR MARKET DATA AND PARTNER CLOSELY WITH EMPLOYERS TO DESIGN AND ADAPT PATHWAY PROGRAMS THAT EQUITABLY EQUIP STUDENTS FOR SUCCESS.

Tennessee has a statewide initiative to create alignment between K–12, postsecondary institutions, and employers for students to have clear and guided pathways to move seamlessly into the workforce. Alongside Tennessee Promise and Tennessee Reconnect, the Tennessee Pathways program directly supports the statewide attainment goal, *Drive to 55*. The program is structured around three key elements to support student success: high-quality college and career advising, early postsecondary and work-based learning opportunities in high school, and seamless vertical alignment as a result of effective partnerships. Regional coordinators are housed at institutions across the state to foster partnerships between high schools and local colleges and employers. Grounded in regional labor market information, 122 pathways at 74 high schools across the state have been certified. The state has begun to track enrollment in these pathways to examine how students fare beyond high school, as compared to students enrolled in career technical education pathways without the certification.

South Carolina has incorporated pathway participation metrics into their state accountability system. Their school and district report cards capture data on pathway participation, course completion, credential attainment, the types of industry credentials earned by career cluster, and participation in dual enrollment as part of students' pathway coursework. By transparently reporting on pathway metrics, South Carolina has signaled the value of career readiness programs with students and families—and empowered them with information to guide their decision to enroll.

STUDENTS COMPLETING HIGH-QUALITY PATHWAYS ARE MORE LIKELY TO ATTEND A POSTSECONDARY INSTITUTION AND RECEIVE HIGHER COMPENSATION AFTER HIGH SCHOOL.

CONSIDERATIONS

- How are high-quality pathways defined? What elements beyond labor market alignment are included?
- What are the boundaries for labor market alignment—city, regional, or state? To what extent are other employer demand signals incorporated in alignment analyses? What thresholds are used to identify demand or wage?
- How is the state or region working to make labor market information actionable for local practitioners?
- How equitable is access to high-quality career pathway programs across student populations?
- How many students enroll in one or more courses in a pathway for an in-demand field, but do not concentrate in that field?
- To what extent are students' future earnings for aligned industries available for analysis and communication?

DEFINING QUALITY IN CAREER PATHWAYS

The High-Quality Pathway Participation measure presents a particular challenge to define. While we have suggested one approach, there are many other ways that a community may choose to track students' engagement in "high-quality" pathways. Definitions of quality may take into account one or more of the following:

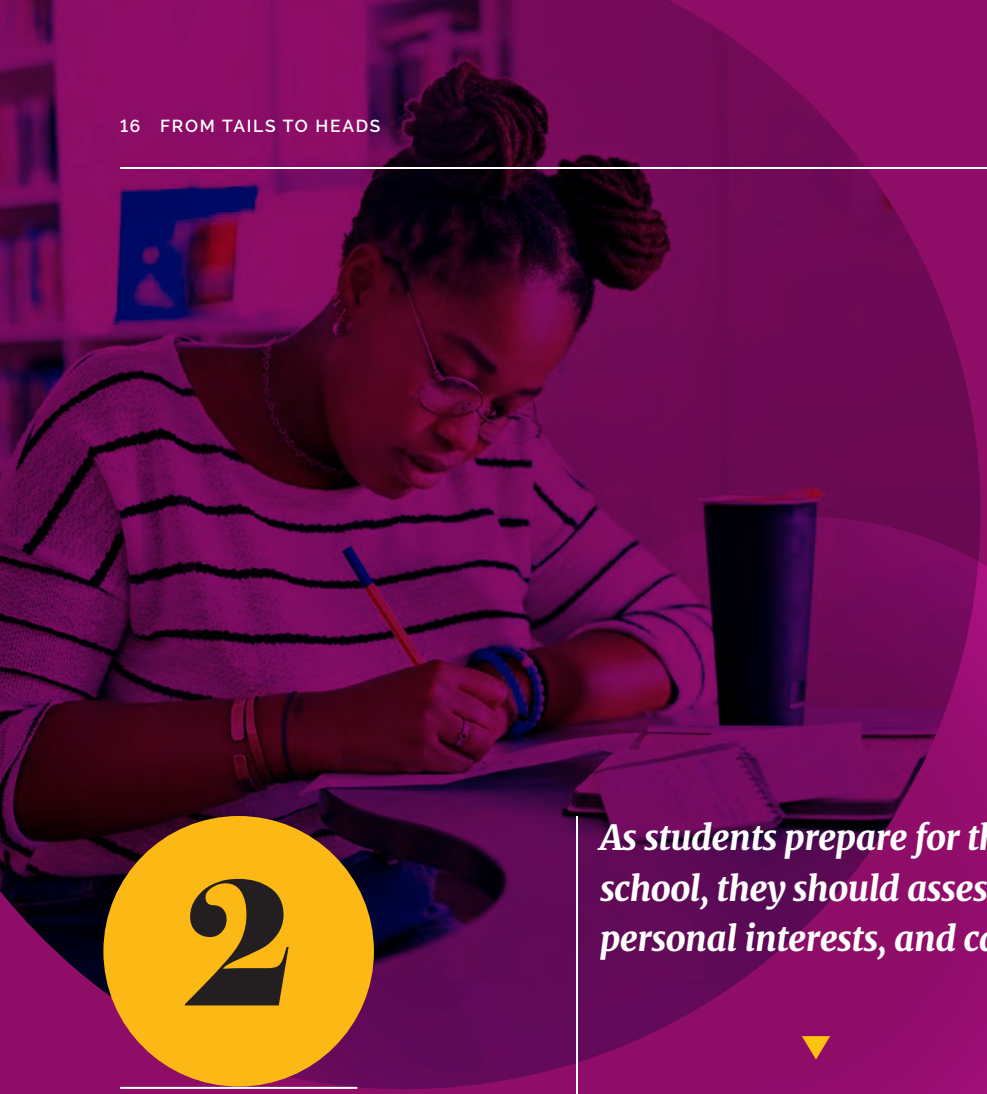
High-Skill: The pathway presents the opportunity for students to move beyond the high school program into an aligned postsecondary program in that field of study.

High-Wage: The median wages for the occupations that the pathway is preparing students for are at or exceed a living wage in the state.

In-Demand: The pathway leads to significant job openings now and into the future. A region or state can determine that through a combination of looking at volume of jobs regionally or statewide, annual openings, and growth projections. At the state level, this information should be considered relative to the state's size and economy.

Further, "high quality" goes beyond labor market alignment. Pathways should include access to early postsecondary credit in the field of study, work-based learning opportunities, industry credential opportunities where appropriate, and clear and direct links between academic and technical coursework. This combination of quality elements is arguably just as important as alignment to labor market.

Whether a particular community considers these elements at the regional or state level should be guided by the mobility of their students. In places where students are highly mobile and likely to move, understanding migration patterns for students could help communities look beyond their own boundaries to identify what pathways best serve students as well as those that serve the local economy. In places where very few people leave the community/region, a much more localized look at the data makes sense.



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APPLYING

As students prepare for their next steps after high school, they should assess their academic background, personal interests, and career aspirations.

This can help them develop a well-rounded list of colleges or postsecondary training programs for application. As they move through the postsecondary application process toward selection and enrollment, students and their families must also take steps to consider both finances and fit. To have access to federal, and in some cases, state and institutional, financial aid, students should complete the Free Application for Federal Student Aid (FAFSA). With the support of college advisers, they should also ensure that they are considering enrolling in postsecondary institutions and programs that are a good match for their individual academic skills and career ambitions. A thorough and intentional approach to the college application and planning process will set students on the path to success.

METRIC ONE: COLLEGE APPLICATION

DEFINITION

The percentage of eligible high school seniors who submitted at least two college applications

Number of seniors that submitted 2+ college applications

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Number of seniors

WHY IT MATTERS

According to research from the College Board, increasing the number of applications from one to two can increase a student's probability of enrolling at a postsecondary institution by 40 percent, and 89 percent of students submitting at least two applications are accepted by at least one four-year institution.[25] While submitting two applications is a foundational goal, we encourage schools and districts to consider setting more ambitious targets. One Goal, a program that partners with districts in six cities across the country to improve high school graduation, encourages students to apply to at least seven best-fit colleges. As part of their College Match Framework, the **KIPP charter network** tracks the percentage of students who apply to at least six institutions.

PUTTING THE METRIC INTO ACTION

At the **District of Columbia Public Schools (DCPS)**, high school principals are assessed for the percentage of college-bound seniors who have submitted at least one college application. To support school leaders in tracking their students' progress towards this goal, the district has created a dashboard that includes both aggregate and student-level data for key college and career readiness measures, including college application and FAFSA completion. School leaders, counselors, career and technical education teams, and college and career coordinators all have access to the dashboard, enabling them to target support to individual students.

In recent years, DCPS has also integrated the concept of "smart college choice," which identifies higher education institutions that meet scaled benchmarks for graduation rates based on a student's GPA and SAT score. For most institutions, DCPS uses graduation rates for Pell Grant-eligible students. For institutions that have had at least 20 DCPS graduates attend across two cohorts, the district calculates a specific DCPS graduation rate. The aforementioned dashboard tracks students who have both applied to and been accepted to a "smart college choice."

As part of the Bill & Melinda Gates Foundation's To & Through Advising Challenge, **Minneapolis Public Schools (MPS)** and **Achieve Mpls** have partnered to help close the city's postsecondary enrollment gaps. They aim to grow the number of students who apply to two or more postsecondary programs to increase the likelihood of student enrollment. All seniors are expected to complete a graduation plan that captures preferences for enrollment, military enlistment, and employment. Regardless of their preferences, all students receive information on multiple postsecondary pathways, and Achieve Mpls staff run Career and College Centers (CCCs) in eleven MPS schools and five St. Paul Public Schools, where they provide one-on-one advising and support to students to help them map their plan for the future, identify "match" institutions, and complete college and financial aid applications.

For a policy approach, the **Idaho State Board of Education** instituted a direct admissions program that sends a letter offering admission to all eight of the state's public postsecondary institutions for any high school student who meets set benchmarks for GPA and SAT or ACT scores. In the four years the policy has been implemented, the state has reduced the gap in seamless enrollment for low-income students, and students of color who received the letter enrolled in college at higher rates than White students who received a similar letter.

The state also found a positive impact on first-generation college-going students. For students whose parents did not graduate from high school, 45 percent of students indicated that the direct admissions letters had a positive impact on their decision to attend college.

CONSIDERATIONS

- Who should have the primary role in collecting and reporting on college application data (i.e. students, high school counselors, school administrators)? What processes can be used to automate and/or verify information?
- What is the average number of applications that students submit currently? How does that differ by student subgroups and academic preparation (i.e., GPA, SAT, ACT)?
- What percentage of high school freshmen, sophomores, and juniors indicate an interest in postsecondary education and then do not ultimately apply?
- What supports are available to help students identify potential institutions and submit college applications?

OVER A THIRD OF HIGH SCHOOL SENIORS FAIL TO COMPLETE THE FAFSA EACH YEAR, LEAVING AN ESTIMATED $3.4 BILLION IN AID ON THE TABLE.

METRIC TWO: FAFSA COMPLETION

DEFINITION

The percentage of eligible high school seniors who complete the FAFSA by June 30

Number of seniors who have completed the FAFSA prior to June 30

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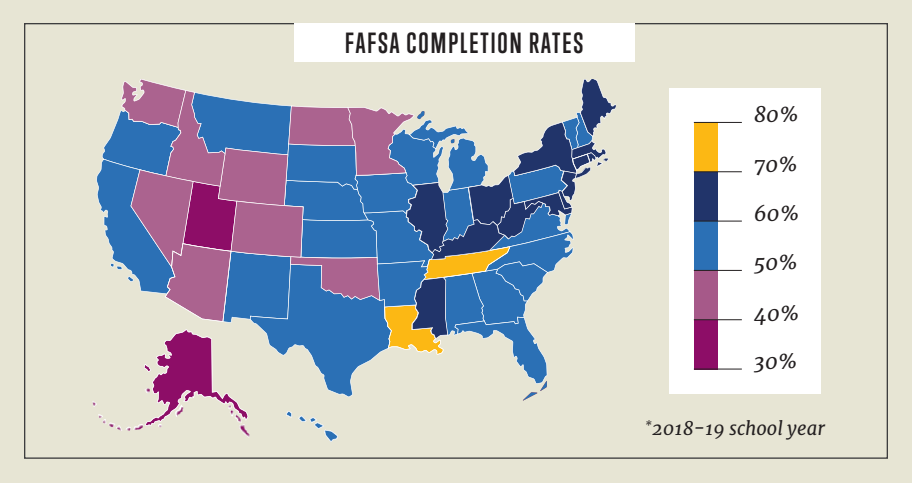
Number of seniors

WHY IT MATTERS

The Free Application for Federal Student Aid (FAFSA) eases the burden of college affordability by providing access to federal—and in some cases, state and institutional—financial aid. Completing the FAFSA significantly increases the odds that a student will enroll in a postsecondary institution directly after high school, with 90 percent of students who complete the FAFSA seamlessly enrolling, compared to just 55 percent of non-completers.[26] Students who complete the FAFSA are also more likely to persist in their college coursework and obtain a degree. Despite this, over a third of high school seniors fail to complete the form each year, leaving an estimated $3.4 billion in aid on the table.[27] And the students who stand to benefit from financial aid the most, including first-generation and low-income students, are the least likely to complete the form. To increase FAFSA completion, one



of the highest-leverage strategies is to provide high school principals and counselors with access to student-level data that they can use to target support to the students who need it most. To further tailor supports, we also encourage tracking additional, more nuanced FAFSA data, such as flagging students who have started, but not submitted the application, as well as students who have submitted, but not completed the form. According to data from the National College Attainment Network (NCAN), more than 66,000 fewer students have completed the FAFSA by the end of May 2020 compared to the same time in 2019. Nationally, this equates to over a 3-percentage point decrease.[28] With many families facing financial hardship, it is more important than ever to ensure students complete the FAFSA.

PUTTING THE METRIC INTO ACTION

Louisiana has consistently been one of the leading states for FAFSA completion rates for the past several years. In addition to requiring students to complete the FAFSA to graduate from high school, the state maintains a statewide data system that includes student-level FAFSA completion data. The Louisiana Office of Student Financial Assistance (LOSFA), which manages the data, shares reports to schools on a weekly basis. Louisiana also includes FAFSA submission data on its School Finder information platform to provide parents and community members with meaningful data on students' postsecondary preparation.

The **Michigan College Access Network (MCAN)** manages a statewide, public-facing FAFSA tracker that enables individuals to view FAFSA completion data by school, enrollment, region, and county and compares current completion rates to the previous year. Schools and districts can use this tracker to monitor their progress relative to their peers across the state. To spur competition, the tracker also features a leaderboard of the top schools in the state by both overall completion rate and growth from the previous year. This competition is further supported by the College Cash Campaign, which provides incentives to schools for meeting certain benchmarks.

Vancouver Public Schools (VPS), located in Washington, shares student-level data through an online portal. Managed by the Washington Student Achievement Council (WSAC), the state's higher education coordinating board, the portal allows all high school counselors and principals to have real-time data on students who have not only completed the FAFSA, but also who have missing information or errors on their application, or who have started, but not completed the form. VPS conducts trainings with school staff on how to analyze and leverage this data to focus the support they provide to students and families.

For additional strategies on how to prioritize and support FAFSA completion, see our report released earlier this year, *Fast Track FAFSA Completion*[29] and the accompanying case studies.[30]

CONSIDERATIONS

- Who has access to student-level FAFSA completion data (i.e., high school counselors, college school administrators, access providers, educators, district personnel)? Who should have access?
- To what extent can your data system track additional metrics, such as students who have started, but not completed the FAFSA or who are missing information on their application?
- How does FAFSA application and completion rates differ by race/ethnicity, income status, and geography?
- How does your system communicate about the importance of FAFSA completion to students and families? What supports are made available to assist in completion?

METRIC THREE: COLLEGE MATCH

DEFINITION

The percentage of high school seniors who are admitted to at least one "match" postsecondary institution

Number of high school graduates who were admitted to 1+ "match" college

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Number of high school graduates who applied to college

WHY IT MATTERS

Where a student attends college matters. Research shows that students from low-income families are more likely to attend less selective universities than their academic credentials would otherwise allow, known as "undermatching." Students who are undermatched are significantly less likely to complete their postsecondary degree given that these institutions often offer less financial aid and support services.[31] As such, many districts and charter networks have started to set goals around the percentage of students admitted to at least one "match" school and have aligned their advising supports to guide students toward the schools where they are likely to be the most successful as early as 9th grade. With students indicating that, in light of the pandemic, they are considering attending a community college, an institution that is more affordable or closer to home, or deferring their college plans altogether, it is essential that students are guided to the institutions where they are most likely to be successful.

PUTTING THE METRIC INTO ACTION

The **KIPP charter network** has developed a College Match Framework that breaks down the key practices—and aligned performance indicators that schools can use to measure progress—that students and counselors should take throughout the college application and selection process. Students explore their "passion, purpose, and plan" to identify their priorities. They then build a "SMART Wish List," with students encouraged to apply to at least six institutions, including a balance of schools they are "likely" to be accepted to, schools that are "targets," and schools that are "reaches" based on their academic performance. Counselors have access to a dashboard that tracks student progress in meeting each of these goals. Schools continue to monitor students as they apply for financial aid, select an institution to attend, and complete the critical steps to enroll and transition in the fall.

STUDENTS FROM LOW-INCOME FAMILIES ARE MORE LIKELY TO ATTEND LESS SELECTIVE UNIVERSITIES THAN THEIR ACADEMIC CREDENTIALS WOULD OTHERWISE ALLOW.

By following this approach, KIPP has found that students at all levels of performance are more likely to matriculate to colleges with historically strong graduation rates for Black and Hispanic students than their peers who apply to fewer schools.

Achieve Atlanta has partnered with Atlanta Public Schools (APS) to develop a Match and Fit List Builder, which supports students with creating a balanced college list, including at least two each of "target," "reach," and "likely" schools. The tool uses data provided by the district, including GPA and the highest score on the ACT or SAT. To provide students with information about the potential cost of the colleges on their list, the tool also asks students to provide their household income.

As part of the To & Through Advising Challenge, the **Partnership for Los Angeles Schools (PLAS)** harnessed data from the National Student Clearinghouse (NSC) to create counselor resources for improving postsecondary fit and match. PLAS was formed as a collaboration between Los Angeles Unified School District (LAUSD), the city of Los Angeles, and other public and private partners, and they manage 18 of the "most historically underserved schools" in the city. They used the NSC data to develop criteria for the "best fit" schools that had a track record of successfully supporting LAUSD students. Schools with an average admitted student GPA above 3.5 with a 75 percent or higher minority graduation rate, or schools with an average admitted student GPA below 3.5 and a 55 percent or better minority graduation rate. PLAS created individual data sheets for each of the "best fit" schools to share with counselors, teachers, parents, and students.

CONSIDERATIONS

- To what extent are students, families, educators, and counselors aware of the importance of college match? How does your system communicate about the concept and support students in applying to match schools?
- What are the criteria for defining a "match" institution for your population of students?
- Who are responsible for collecting and reporting information on college admissions? How is that information maintained in your data system?
- To what extent does your system measure the difference in the number of students who are accepted to an institution and who ultimately matriculate (i.e., summer melt)? How does that differ by student subgroups and institutions?
- What percentage of Black, Hispanic, and low-income students are accepted at a match institution? How do those rates compare to their peers?

SETTING CRITERIA TO IDENTIFY MATCH INSTITUTIONS

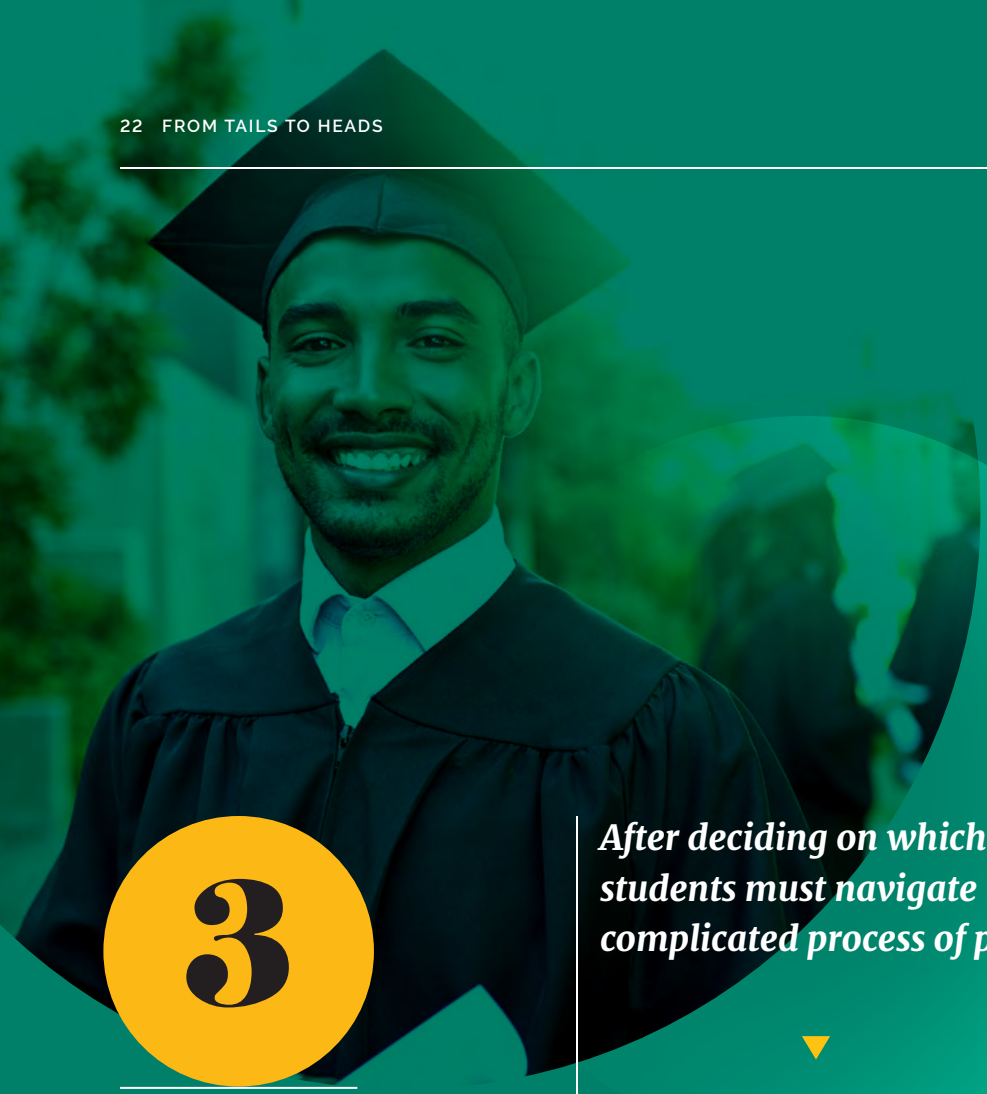
By combining internal data on their students' academic performance with postsecondary outcomes data from the National Student Clearinghouse (NSC), districts and charter networks can set their own benchmarks for identifying match institutions for their students. Below are a few examples of how districts from across the country have done just that.

Los Angeles Unified School District (LAUSD) has partnered with the Partnership for Los Angeles Schools (PLAS) to set benchmarks based on GPA and minority graduation rates. For institutions with an average admitted student GPA above a 3.5, match institutions must have at least a 75 percent of higher minority graduation rate. For institutions with an average admitted student GPA below a 3.5, match institutions must have at least a 55 percent of higher minority graduation rate. This approach recognizes that less selective institutions tend to have lower graduation rates, and not all students will meet the admissions criteria to be accepted to a more selective institution.

Atlanta Public Schools (APS) has partnered with Achieve Atlanta to develop a "Match and Fit List Builder," which uses students' GPA and their highest SAT or ACT score to identify "Target," "Reach," and "Likely" schools. For "Target" schools, students meet the average admissions criteria; for "Reach" schools, they fall just below; and for "Likely" schools, they fall above. Institutions are ordered in the dashboard by graduation rate, from highest to lowest, to encourage students to consider an institution with a higher graduation rate.

Chicago Public Schools (CPS) has partnered with the University of Chicago Consortium to develop a College Match Grid that categorizes institutions to apply to based on a student's GPA and SAT or ACT score: two-year colleges, "less selective" four-year colleges, "somewhat selective" four-year colleges, "selective" four-year colleges, and "very selective" four-year colleges. For example, while a student scoring below 940 on the SAT or 18 on the ACT and with less than a 2.0 GPA might want to consider a two-year college, a student with a 3.0 GPA and the same test scores might look at "selective" colleges. The grid is paired with a "College Selectivity List" of institutions for each of those categories.

KIPP college counselors support students with identifying "Likely Plus" institutions—a combination of "Likely" and "Target" schools—where they have a higher likelihood of admissions, based on their GPA and SAT or ACT scores, and a higher graduation rate, which they pull from both the NSC and their extensive alumni database. KIPP students are encouraged to apply to at least six "Likely Plus" institutions.



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ENROLLING

After deciding on which college to attend, students must navigate the oftentimes complicated process of preparing to enroll.

When students fail to enroll in higher education the semester directly following their high school graduation, their likelihood of successfully earning a postsecondary degree or credential is substantially diminished. Before they can begin taking classes, there are a number of often-complex logistical steps for students to navigate in order to successfully enroll. Over the summer, they likely need to complete forms for financial aid and enrollment, select which courses to take, decide on housing, and attend orientation.

Once they have enrolled, students must ensure they are set up for success. If they entered postsecondary education with gaps in their preparation, they may need to take remedial coursework or access other academic supports. Just as it is essential to start high school on the right foot, successfully navigating into and through the first year of college presents its own challenges for students on the road to earning a postsecondary degree or credential. A strong first-year foundation substantially increases the likelihood of successful higher education attainment and the resulting opportunities for economic mobility.

METRIC ONE: SEAMLESS ENROLLMENT

DEFINITION

The percentage of students who enroll at a postsecondary institution directly after high school; the percentage of students who enlist in the military, enter the workforce (in a position with family-sustaining wages), or participate in a registered apprenticeship

Number of high school graduates enrolled in a postsecondary institution prior to October 31 following graduation

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Number of high school graduates

Number of high school graduates enlisted in the military, enrolled in an apprenticeship program, or employed earning > $30,000 year prior to October 31 following graduation

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Number of high school graduates

WHY IT MATTERS

Students who enroll at a college or university directly after high school are more likely to persist and attain a postsecondary credential. Yet each year, approximately 20 percent of graduating high school seniors who have committed to attend a postsecondary institution do not matriculate in the fall.[32] This phenomenon, known as "summer melt," is particularly felt by low-income students, first-generation college-going students, and students of color, who may face additional challenges navigating the transition. By using seamless enrollment as a proxy for "summer melt," states and districts can prioritize supports for interventions such as summer bridge programs, near-peer mentoring programs, and technology-embedded advising campaigns.

PUTTING THE METRIC INTO ACTION

After reviewing data that revealed that 64 percent of high school seniors completed the state's ApplyTX application, yet only 49 percent actually enrolled in a Texas institution, **Dallas Commit** partnered with four school districts and 11 colleges to launch a texting campaign. Students received reminders about college enrollment milestones and could text back to receive support from counselors or college staff. The 1,000+ high school seniors who opted in to participate in the pilot were 13 percent more likely to enroll in a postsecondary institution compared to their peers, even when controlled for race/ethnicity, socioeconomic status, GPA, and gender. Students appreciated that the texts provided just-in-time reminders about tasks and deadlines and said that the texts made the tasks feel less overwhelming. The texts also freed high school and college advisors to offer more differentiated supports to students, and provided them with useful information on the most common stumbling blocks for students. Perhaps even more importantly, the texts created a coordinated handoff between the high school advisor and college staff. Once a student made their college decision, their account was transferred to the higher education partner, allowing the student to text directly with admissions and financial aid representatives.

Realizing that waiting for students to arrive as freshmen was too late to begin providing the advising supports students need to succeed in postsecondary education, **Miami Dade College (MDC)** partnered with the K–12 school district to develop Shark Path, a three-tier advising program. Shark Path starts with prospective students receiving pre-college advising support in their high school, with more than 90 percent of Miami-Dade high school students receiving support from an MDC advisor. Students complete a noncognitive assessment, a career assessment, assistance with applying for financial aid and scholarships, and an online curriculum prior to their participation in first-year orientation. Shark Path has increased the number of students who have registered for courses by 12 percent, with 78 percent of students enrolling in a credit-bearing English and mathematics course. Once students transition to college, they continue to receive support from their advisor on course selection and degree planning, which have contributed to the program's fall-to-fall retention rate of 75 percent.

To combat summer melt, **Georgia State** developed an artificial intelligence–enhanced chatbot, "Pounce," to answer questions from incoming students in real time through text. During the first summer of implementation, Pounce delivered more than 200,000 texts, and the university saw a 22 percent increase in their seamless enrollment rate, equating to an additional 324 first-year students enrolled. Georgia State paired this approach with enhancing its online student portal, which guided students through the most common obstacles experienced by students in transitioning to higher education, including submitting financial aid documents and immunization records, taking placement exams, and registering for classes.

CONSIDERATIONS

- To what extent do all counselors and administrators have access to National Student Clearinghouse data on postsecondary enrollment? How is that information shared with other individuals or organizations supporting students' postsecondary transitions?
- Does the system's data only include in-state institutions? How might you capture information about private or out-of-state institutions?
- To what extent does the state have access to data on apprenticeships, military enlistment, and employment at certain wage thresholds?
- How does seamless enrollment differ by race/ethnicity, income status, and geography? How does the rate of summer melt differ by those student groups? How do the seamless enrollment rates change as high school graduation rates change?
- What supports are available to help students successfully transition into postsecondary education and training, military, and the workforce? How is that information communicated to students and families?

DATA TO EXPAND MEASUREMENT OF POSTSECONDARY OUTCOMES

While some form of a postsecondary education is essential for ensuring that students are able to access careers that offer a sustaining wage and opportunities for advancement, we know that not all students will enroll in higher education directly after high school. Some students may instead complete an apprenticeship program or enlist in the military. To have a complete picture of where their students go after high school, schools, districts, and states should collect and track data on these two alternate paths. However, this is often easier said than done due to the lack of centralized data reporting systems for apprenticeships and military enlistment. Presently, many schools and districts rely on students' self-reports, but this is not optimal. States need to support approaches that more reliably and efficiently capture this information. The information below provides a snapshot of state approaches to gather postsecondary outcome data beyond college enrollment. For a more detailed discussion, The State of Career Technical Education: Improving Data Quality and Effectiveness.

Apprenticeship Data

Data from the majority of registered apprenticeship programs is maintained by the U.S. Department of Labor's Registered Apprenticeship Partners Information Data System (RAPIDS). RAPIDS contains individual-level data from 25 state programs administered by the U.S. Department of Labor's Office of Apprenticeship (OA), as well as nine states administered by State Apprenticeship Agencies (SAAs). RAPIDS includes data on both registered apprentices, such as demographics, education level, and current enrollment status, as well as on programs, such as the duration of on-the-job instruction, the names of instructional providers, and apprentice wage rates. Additionally, several states, such as Hawaii, North Carolina, and Texas, capture data on registered apprenticeships in their longitudinal data systems.

Military Enlistment Data

Traditionally, information from the military on high school students' scores on the Armed Services Vocational Aptitude Battery (ASVAB) and enlistment in one of the branches has been exceedingly difficult for state education agencies to access. With the passage of the Every Student Succeeds Act (ESSA) in 2015, that trend has started to change. A number of states now include meeting a certain score on the ASVAB as a demonstration of college and career readiness, and Pennsylvania and Texas have incorporated military enlistment into their reporting and accountability systems, respectively. Pennsylvania's Future Ready PA Index reports for each high school the percentage of graduates that enroll in postsecondary education, enlist in the military, or enter the workforce within 16 months. The state accesses military enlistment data from the Defense Manpower Data Center database that was developed for the Service Members Civil Relief Act. Texas has signed an MOU with the Department of Defense to receive enlistment data for incorporation into its postsecondary outcomes financial bonus under its HB 3 legislation passed in 2019.

UI Wage Data

The state-administered Unemployment Insurance (UI) system requires employers to submit quarterly reports of wages paid to individual employees. With data covering 99.7 percent of all wage and salary workers, the UI system is the most comprehensive source for tracking students' future earnings. Since states must maintain two years of data, with most having access to longer employment history information, the UI system can also be used to create longitudinal records of individual earnings. To access the UI wage data, schools, districts, and higher education institutions can either work directly with the state's UI data entity and then match records with student-level files, or they can leverage support from an intermediary organization. For example, Montgomery College in Maryland had an agreement with the Jacob France Institute (JFI) of the University of Maryland, which maintains UI wage data files under agreements with the state of Maryland, District of Columbia, and other neighboring states. As a result, it was able to observe UI wages across an entire regional labor market for Montgomery College students. The Data Quality Campaign has a Roadmap for K-12 and Workforce Data Linkages that may be a useful resource for states as they work to acquire this information.

METRIC TWO: GATEWAY COURSE COMPLETION

DEFINITION

The percentage of students at postsecondary institutions who complete "gateway" (or entry-level) courses within their first year

Number of first-time postsecondary enrollees that complete both entry-level mathematics and English courses within their first year of enrollment

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Number of first-time postsecondary enrollees

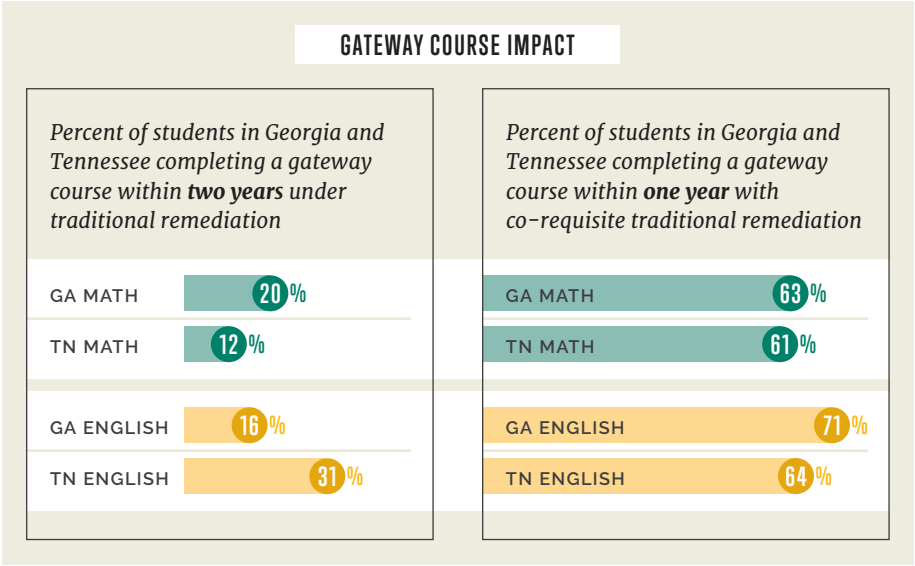
WHY IT MATTERS

To increase the number of students who successfully complete gateway courses within their first year, higher education institutions must remove barriers created by traditional remediation and provide the necessary academic supports to ensure students succeed.[33] Each year, nearly 20 percent of students attending a four-year institution and 50 percent of students attending a two-year institution are placed into remedial courses, which significantly decreases students' chances of obtaining a degree. In fact, only 36 percent of remedial students at four-year colleges ever enroll in, let alone complete, their introductory gateway courses in mathematics and English, and only 17 percent graduate. For low-income and first-generation students, these chances are even lower.[34]

Co-requisite remediation, in which students enroll directly into credit-bearing, college-level courses and receive academic support alongside their regular courses, enables students to stay on course to earning their degree. A study from the Community College Research Center found that for students on the margin of college readiness, those placed into co-requisite remediation were 15 percentage points more likely to complete the gateway courses required for graduation. And states across the country—including **Georgia, Florida, Indiana,** and **Tennessee**—have doubled, or even tripled, their student success rate in gateway courses by implementing co-requisite remediation.[35]

PUTTING THE METRIC INTO ACTION

In **Tennessee**, the Board of Regents (TBR) commissioned a study that found that 60 percent of students entered college with the need for remediation in mathematics or English, and only 12 percent of students enrolled in a traditional remedial course completed a credit-bearing gateway course within the academic year. In response, community colleges and universities across the state piloted a co-requisite approach to remediation. The results were astounding—the pilot saw a four-fold increase in the percentage of students passing credit-bearing coursework in mathematics and a two-fold increase in English when enrolling in co-requisite remediation compared to the traditional model.



CO-REQUISITE REMEDIATION ENABLES SUCCESS IN GATEWAY COURSES AND HELPS STUDENTS TO STAY ON COURSE TO EARNING THEIR DEGREE.

This pattern held for students regardless of their ACT score, race/ethnicity, or income status. When TBR analyzed their year-to-year retention rates for students enrolled in co-requisite remediation, they found that 69 percent returned for a second year, compared to 47 percent of students who did not participate in the pilot. Given the success of the pilot, TBR scaled the co-requisite model to all community colleges and universities starting in the 2015–2016 academic year.

In **West Virginia**, nearly two-thirds of students enroll requiring some form of remediation, and historically, only 13 percent of students who started in remedial courses graduated within six years. In an ambitious move to scale system-wide in a single year, Chancellor of the West Virginia Community and Technical College System Sarah Tucker called on every campus to shift to a co-requisite model. The percentage of students in need of remedial English who went on to complete the associated gateway course increased from 37 percent to 68 percent; in mathematics, rates catapulted from 14 percent to 62 percent.

Several states across the country, including **California, Texas, Tennessee,** and **Colorado**, have taken a legislative approach to increase the likelihood that students complete gateway courses. For example, California passed Assembly Bill 705 (2018), which mandates that all community colleges maximize the probability that a student will complete credit-bearing mathematics and English courses within their first year of college. Within two years, more than 70 percent of the state's 114 community colleges have transitioned to co-requisite remediation to promote gateway course completion, three times the number of campuses before the bill was passed.

CONSIDERATIONS

- What entity(ies) are responsible for collecting these data? To what extent are the data available at the state vs institutional levels? In the aggregate or by student?
- What percentage of higher education institutions offer co-requisite remediation? In what courses and subjects?
- How are students placed into remedial coursework? How is college readiness defined (by the state, system, or institution)? What state requirements exist for students to take remedial coursework at specific institutions or within specific approaches?
- How does gateway course completion differ by race/ethnicity, Pell status, full-/part-time enrollment, and institution? How does completion differ by subject area across those student groups and institutions?

RECOMMENDATIONS FOR STATES AND DISTRICTS

States and districts have a vital role to play in ensuring the Momentum Metrics data are collected, monitored, and used to increase students' postsecondary preparation, transitions, and success.

RECOMMENDATIONS FOR STATE LEADERS

Incorporate the metrics in the state longitudinal data system.

Perhaps the most important role that the state can play in facilitating data-driven conversations about students' postsecondary preparation and success is to ensure that policymakers and practitioners have access to the highest-leverage data on student progress. Many of the metrics suggested in this report are either only collected locally, or done so sporadically at the state level. Whether these data are available should not be up to the individual priorities or capacity of districts. States should immediately begin collecting information and building tools to visualize data not currently in their longitudinal data systems—such as GPA, college application, and postsecondary outcomes beyond college enrollment—so that both local administrators and state level policymakers have actionable insight into students' progress to successful postsecondary outcomes. For instance, Delaware's Education Insight Dashboard provides teachers, counselors, and administrators throughout the state with individual student information on course enrollment and grades, career pathway participation, 9th and 10th grade on-track measures, FAFSA completion, and postsecondary application and matriculation information.

FOR STATE LEADERS LOOKING TO PRIORITIZE A SINGLE METRIC, WE RECOMMEND SETTING GOALS AND MONITORING PROGRESS ON THE STATE'S EXPECTED POSTSECONDARY COMPLETION (EPC) RATE.

Use the measures to track progress toward meeting the state's postsecondary attainment goal.

Individually, and collectively, the recommended metrics are "leading" measures of students' progress to and through higher education. As such, they can provide valuable annual information on the progress the state is making to meet its postsecondary attainment goal. State leaders could create a dashboard to monitor progress across all of the measures and visualize the trajectory of students on their path to postsecondary matriculation. Alternatively, for state leaders looking to prioritize a single metric, we recommend setting goals and monitoring progress on the state's Expected Postsecondary Completion (EPC) Rate, which encapsulates many of the ideas included in the Momentum Metrics. That measure can provide a powerful sense of whether the system is on-track as a whole to meet identified postsecondary attainment goals. For more on EPC, see the text box on page 30. Forty states currently have the data available to make this calculation, so it can be an important first step for leaders to take as they work to collect other data elements over time that are predictive of postsecondary preparation and success.

Create incentives for districts to set and meet metric goals.

In a time of significant competing priorities and budget reductions, communities will need incentives to prioritize the identified metrics. This is especially true if the metrics are not a component of the state's

accountability system. States should consider grant competitions, using federal stimulus dollars, or other award approaches to encourage districts to set and meet annual improvement targets. States could look to the model used by Texas in its HB 3 legislation, which awards districts additional dollars based on student postsecondary preparation outcomes, with greater awards for helping students further behind achieve those outcomes.

Analyze statewide data to identify and promote bright spots.

The state education agency—potentially in partnership with the state's higher education agency—should produce an annual report that highlights the state's progress in moving each of the metrics and points to specific schools, districts, or communities that have demonstrated significant year-over-year improvement. These "bright spots" should be showcased both in terms of state-level communications and through the execution of peer learning networks. The agency should also use the data analysis to identify gaps in the metrics, in terms of race/ethnicity, income status, and geography.

Target supports using research-backed interventions.

As outlined in the descriptions above, there are research-backed strategies that practitioners and policymakers can implement to improve student outcomes for each of the metrics. States should use their programmatic funds and bully pulpit to promote strategies that have proven to be effective in improving students' postsecondary preparation and success. For instance, the University of Chicago has produced a series of tools and trainings on how to improve students' grade point average. This information could be collected into a toolkit for communities on how to best to use the available data to target supports.

Facilitate peer learning networks.

To actually facilitate the use of the identified research-backed interventions, as well as to learn from the bright spot districts, states should consider developing peer learning networks around specific metrics. This will give educators and administrators a way to learn not only about *what* they should do, but also importantly, *how* they can implement the strategies.

GIVE EDUCATORS AND ADMINISTRATORS A WAY TO LEARN NOT ONLY ABOUT WHAT THEY SHOULD DO, BUT ALSO IMPORTANTLY, HOW THEY CAN IMPLEMENT THE STRATEGIES.

The California CORE districts represent a good model for this collaboration. They are currently working as a collective to identify and implement the best approaches for increasing the number of students that are "on-track" to postsecondary exiting the 9th grade and completion of advanced coursework, among other key measures.

Create supportive policies.

The state's role in setting the appropriate enabling conditions for success is paramount. State leaders must identify policy approaches that inspire action and remove barriers to improve students' postsecondary preparation and transitions. This includes both broad strategies for increasing data transparency and use and specific policies, such as the implementation of co-requisite remediation, that research has shown will lead to student success, especially for students of color and those from low-income families.

Communicate about the most predictive indicators of student progress and success.

State leaders should organize appropriate communications targeted both at the public and school and district officials to make them aware of the critical leverage points in a student's path to and through postsecondary education and training. The more attention the state can bring to things like FAFSA completion, the greater the likelihood that students and families will prioritize some of the most predictive indicators of future success.

USE EXPECTED POSTSECONDARY COMPLETION RATE AS A LEADING INDICATOR OF ATTAINMENT

Governors, legislators, chief state school officers, higher education executive officers, mayors, superintendents, and other leaders may desire a single, meaningful metric that provides a system-level perspective on how their state or community is tracking toward meeting its postsecondary attainment goal. Expected Postsecondary Completion (EPC) estimates the rate at which students will graduate from the institutions into which they matriculate. EPC both provides more immediate feedback on system progress and is highly predictive of six-year postsecondary graduation rates.

To calculate EPC, systems use data on current institutional graduation rates—from the Integrated Postsecondary Education Data System, National Student Clearinghouse, or their own alumni database, if available—by race/ethnicity and income status to "assign" an expected graduation rate to each student. If a student does not matriculate, that student is classified as zero percent. The assigned rates are then averaged across the entire cohort to produce the EPC.

With nearly every governor in the nation setting a postsecondary attainment goal aligned to the state's workforce needs, state and community leaders can and should use EPC as a leading indicator to identify whether their system is on track to meet the attainment goal and work to close any gaps identified through the analysis. Schools and districts can use EPC rates to set meaningful targets for improvement and make any necessary adjustments to student advising supports to ensure that their students are enrolling in the institutions where they are most likely to succeed and attain a degree. For instance, some charter management organizations, such as KIPP, have begun to use EPC as a main goal for monitoring improvement across multiple schools and determining long-term impact. While postsecondary graduation rate has long been a key indicator for the higher education sector, K-12 systems should leverage it as part of their broader strategy to support students' postsecondary transitions and success.

RECOMMENDATIONS FOR DISTRICT LEADERS

Adopt momentum metrics as a core measure of success.

District leaders need to prioritize postsecondary preparation and successful transitions as the ultimate measure of their systems' success. This means holding themselves and their administrators accountable for improvement and sharing progress publicly.

Convene cross-sector leaders to review data and plan for improvement.

District leaders need to ensure that their district has access to the Momentum Metrics data. Many of the metrics can be calculated using data already collected at the district level; however, understanding where students are enrolling after graduation requires additional effort. Every district should subscribe to the National Student Clearinghouse's StudentTracker to gain those valuable data and ensure appropriate training supports exist. District leaders then should convene school teams to analyze all of the Momentum Metrics, and reach out to community-based organizations, business leaders, and postsecondary representatives to jointly strategize solutions for closing identified postsecondary preparation and transition gaps.

IT WILL TAKE A COMMUNITY EFFORT TO ENSURE EACH STUDENT RECEIVES THE ASSISTANCE AND GUIDANCE THEY DESERVE TO HELP THEM REALIZE THEIR POSTSECONDARY ASPIRATIONS.

Set goals for improvement.

While all of the metrics are important, having too many priority indicators may diminish focus. On an annual basis, each district should select at least one indicator from the Preparing, Applying, and Enrolling areas to set a goal for improvement and focus capacity and resources to drive change. Having clearly-defined targets and publicly reporting on progress can bring needed attention to the highest-leverage steps along a student's journey through high school. This can have an even greater impact if there are specific expectations for improvement on building or district administrators.

Deploy capacity to offer direct student advising and assistance.

Capacity, whether internal to the district or through a partnership, is necessary to target individual student supports. Districts should either employ an individual directly responsible for monitoring student data, working with school educators and administrators, and coordinating outside advising supports, or work with partners that can bring that capacity. In the latter scenario, the district will need to ensure that their partner organization can appropriately access student data, so that they can provide the necessary individualized support.

Integrate metrics into regional postsecondary attainment strategies.

As communities work to meet attainment goals and prepare students for the workforce, it will be critical that students are able to seamlessly transition from high school to postsecondary education and training. The momentum metrics should be used as leading indicators of whether the community is on the path to meet its attainment goal.

Partner with postsecondary institutions to address gaps.

The Momentum Metrics data should be used as a flashlight to see what hurdles stand in the way of student success and identify how students of color and low-income students fare compared to their peers. However, it's not enough to stop at illumination; schools and districts need to partner with their local postsecondary institutions to facilitate seamless transitions. For instance, if too many students that go on to the local community college fail to complete a gateway mathematics or English course in their first year, it may make sense for the district to work with that community college to develop a 12th grade transition course or summer bridge program to improve students' academic preparation.

Identify policy barriers that impede progress.

District leaders should communicate to the state when barriers arise for supporting students' postsecondary preparation and transitions. For instance, unnecessary pre-requisites may hinder the ability of students to enroll in advanced coursework, even if they have previously been identified as having potential. States can issue waivers around these requirements, as Ohio has, or institute regulations, similar to those in Washington, that automatically enroll students in advanced courses if they have shown potential.

THE PATH FROM TAILS TO HEADS

The path to attainment starts with access. During the current period of economic recovery, attaining a postsecondary degree or credential is more important than ever. Yet, each year, over one million students fail to make the transition from high school to college, with first-generation, low-income, and students of color facing even more significant barriers to access.

In this report, we highlight a set of eight metrics that map across a student's experience of preparing for, applying to, and enrolling in a postsecondary education. Taken together, the Momentum Metrics represent the highest-leverage indicators that a student is on the path to successfully transition to college.

LET'S WORK TOGETHER TO
REVERSE THE ODDS AND MAKE EVERY STUDENT'S DREAM OF A POSTSECONDARY EDUCATION A REALITY.

But students cannot walk this path alone. They need the help of school leaders, educators and counselors to guide and support them. And schools need states and districts to enable the conditions to collect, monitor, and use these data to target support to the students who need it most.

We owe it to our students to give them more than a coin flip's chance to realize their potential. Let's work together to reverse the odds and make every student's dream of a postsecondary education a reality.

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APPENDIX

Coin Flip High School Methodology

In late 2019, Education Strategy Group sent a data request to every state that publicizes data on the postsecondary enrollment of recent high school graduates. We obtained the list of states through a combination of research provided by Achieve, Inc., the Data Quality Campaign, and an article in Education Dive (*Ready for what? Postsecondary data on school report cards remains mixed bag*). Data requests were sent directly to either the state education agency or state higher education agency (and sometimes to both), based on which agency previously publicized the data. There were a handful of states that make this information available to the public in an easy-to-download format.

We specifically requested that each state provide the number and percent of recent high school graduates who enrolled in any postsecondary institution for the entire state and each high school in the state, disaggregated by all students, Black students, Hispanic students, White students, and low-income (as defined by the state) students. We requested data for the 2017 and 2018 years, and asked to receive data on the shortest period for enrollment available (i.e., enrollment within 6 months of graduation).

We obtained state-level disaggregated data on postsecondary enrollment from the following states: AK, AZ, CO, CT, DC, DE, FL, GA, IN, IA, KY, LA, ME, MA, MD, MI, MN, MS, MT, NE, NC, NJ, ND, OH, OK, PA, RI, TN, TX, VA, VT, WA, WI. In some of these states, we were only able to obtain data for enrollment in in-state institutions; in other states, we were not able to obtain data on a specific student group (i.e., low-income). We received or were able to download disaggregated postsecondary enrollment data by high school for the following states: AK, AZ, CO, CT, DE, FL, GA, IN, IA, KY, LA, ME, MA, MI, MN, MS, MT, NE, NC, NJ, OH, PA, RI, TN, UT, VA, and WA. Again, in some of the states the data are limited to enrollment in in-state institutions or do not include data for all requested student groups (e.g., Black, Hispanic, low-income).

For every state in which we received individual high school data on postsecondary enrollment, we calculated the number of schools where specific student groups enrolled in postsecondary education at a rate of less than 50 percent for the 2017 graduating cohort. In six of the states (CT, DC, ME, MI, OH, and PA), we had to use data from 2018 and in one state (WA) we used data from 2016. While our data request was standard across all states, the data provided and analyzed differed in four main ways: (1) enrollment year (as mentioned); (2) whether the data included enrollment in in-state, out-of-state, and/or private institutions; (3) length of time for enrollment (nearly all provided within 12 months, with one providing six, a couple 16, and one 24 months); and, (4) suppression for small cell sizes. For "coin flip" high school calculation purposes, we included enrollment in any institution and we removed any high schools with suppressed data.

To estimate the national number, we multiplied the average percent of schools represented for each student group from our sample (i.e., 67 percent of all high schools across the states in which we received data had postsecondary enrollment data for low-income students) by the average percent of coin flip high schools for that student group by the total number of high schools in the state.

END NOTES

1 https://nces.ed.gov/programs/coe/indicator_cpa.asp
2 https://cew.georgetown.edu/cew-reports/americas-divided-recovery/
3 https://cew.georgetown.edu/cew-reports/americas-divided-recovery/
4 https://www.policylink.org/our-work/economy/national-equity-atlas/COVID-workforce
5 https://www.luminafoundation.org/stronger-nation/report/2020/#nation
6 See appendix for list of states and methodology for the analyses that appear in this report.
7 There are other organizations and states that are taking on similar work that should be examined as well, including Louisiana's Promotion Power research (https://www.mathematica.org/our-publications-and-findings/publications/the-promotion-power-impacts-of-louisiana-high-schools) and KnowledgeWorks REMIQS project (https://remiqs.org)
8 https://www.cps.edu/press-releases/mayor-emanuel-and-cps-announce-highest-ever-college-enrollment-rate-and-strongest-one-year-improvement-since-2010/
9 https://www.ncan.org/page/to_and_through
10 https://www.educationdive.com/news/ready-for-what-postsecondary-data-on-school-report-cards-remains-mixed-bag/573454/
11 https://dataqualitycampaign.org/wp-content/uploads/2019/04/DQC-Show-Me-the-Data-04042019.pdf
12 https://www.rand.org/pubs/research_reports/RR4344.html
13 See: https://dataqualitycampaign.org/resource/safeguarding-student-data-at-every-level/
14 See Destination Known: Valuing College AND Career Readiness in State Accountability Systems (http://edstrategy.org/resource/destination-known/) and Making Career Readiness Count (http://edstrategy.org/resource/making-career-readiness-count/)
15 Thank you to DQC for this apt metaphor from http://dataqualitycampaign.org/wp-content/uploads/2017/01/DQC-Arnold-01232017.pdf
16 https://www.annenberginstitute.org/sites/default/files/VUE35a.pdf
17 https://consortium.uchicago.edu/sites/default/files/2018-10/Predictive%20Power%20of%20Ninth-Grade-Sept%202017-Consortium.pdf
18 https://dfbaaa3e-0ce2-4de0-929d-4611a51646be.filesusr.com/ugd/03cac8_5d0fbf7ac34a4ffab130058eaeef5665.pdf
19 https://ccrc.tc.columbia.edu/media/k2/attachments/crdc-advanced-placement-dual-enrollment-access.pdf
20 https://research.collegeboard.org/pdf/college-board-delivering-opportunities-sat-suite-results-2016-17.pdf
21 https://eoschools.org/approach/action-for-equity/
22 Interview with Kevin Rasco, San Antonio Independent School District
23 Interview with Ajit Gopalakrishnan and Michelle Rosado, Connecticut State Department of Education
24 https://fordhaminstitute.org/national/research/career-and-technical-education-high-school-does-it-improve-student-outcomes
25 https://files.eric.ed.gov/fulltext/ED562599.pdf
26 https://www.ncan.org/page/WhyInvestFAFSA
27 http://edstrategy.org/resource/fast-track-fafsa-completion/
28 https://formyourfuture.org/fafsa-tracker/
29 http://edstrategy.org/resource/fast-track-fafsa-completion/
30 http://edstrategy.org/resource/fast-track-fafsa-strategies-in-action/
31 https://aheadoftheheard.org/choosing-a-college-is-both-art-and-science-an-introduction-to-match-and-fit/
32 https://nces.ed.gov/programs/coe/indicator_cpa.asp
33 https://ccrc.tc.columbia.edu/media/k2/attachments/early-momentum-metrics-college-improvement.pdf
34 https://completecollege.org/wp-content/uploads/2017/11/CCA-Remediation-final.pdf
35 https://ccrc.tc.columbia.edu/publications/effects-corequisite-remediation-tennessee.html. See also: https://journals.sagepub.com/doi/full/10.3102/0013189X20933876.
36 Forty states pay to access data from the National Student Clearinghouse on the postsecondary enrollment of high school graduates. https://www.educationdive.com/news/ready-for-what-postsecondary-data-on-school-report-cards-remains-mixed-bag/573454/
37 https://tea.texas.gov/about-tea/government-relations-and-legal/government-relations/house-bill-3
38 http://www.pathwaystoadultsuccess.org/wp-content/uploads/2019/11/WTCN_Day1_Zheng_ConstellationC_120pm2.pdf

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