

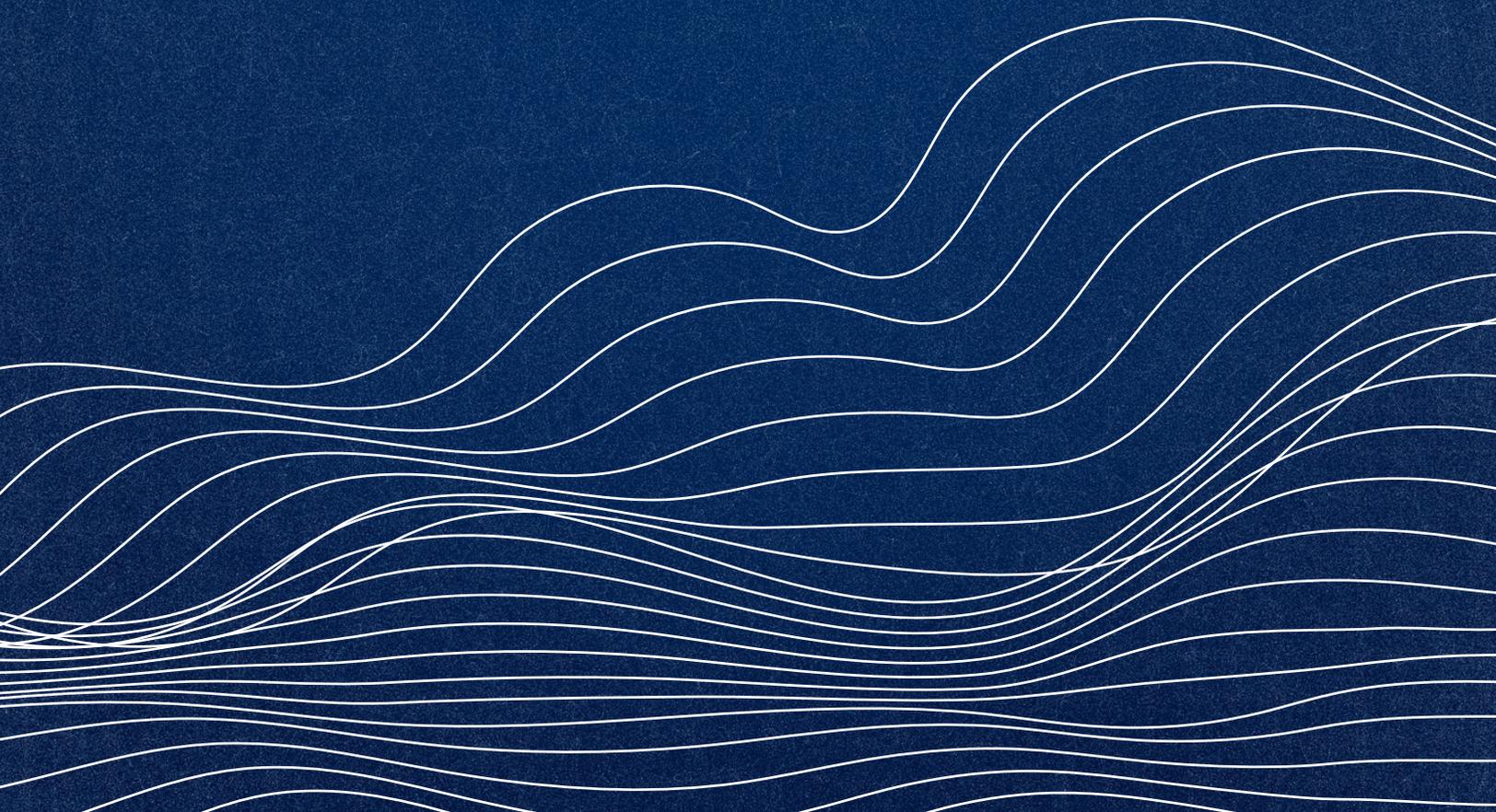
# Measurement for **MOBILITY**

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How U.S. States Can Use Data to  
Incentivize Postsecondary and  
Workforce Success in Public Education

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MAY 2024



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# Executive Summary

Education is an economic investment, for both students and states. To maximize the return on investment and ensure that education drives economic mobility, states need K-12 and postsecondary systems to prioritize and improve the outcomes that matter most for students' success in life after school — namely, postsecondary and workforce success.

Far too many students are not finding success in the transitions between high school, higher education, and the workforce. And the gaps in long-term student outcomes have only widened since the pandemic. Pandemic decreases in college enrollment were especially large at two-year colleges and among communities of color, and racial gaps in college completion rate and postsecondary degree attainment persist. Racial earnings gaps track these educational disparities. While postsecondary attainment remains the safest bet for finding economic prosperity in the country, students and families are increasingly questioning the value of postsecondary education and want to know that their investments of time and money will pay off.

Data is one of the strongest levers states have to demonstrate and improve the value of public education. States must monitor and encourage a focus on measures that track how well K-12 and higher education institutions are preparing students to succeed in the next phase of their education-to-workforce journey. This report examines how states are able to measure and support the long-term success of students in their reporting, accountability, and incentive systems.

The United States has made progress in using postsecondary and workforce success metrics over the past decade, and several states now stand out as bright spots. However, the country has not fully committed to prioritizing measures to ensure that public education remains a powerful engine for economic mobility in the post-pandemic era. Now is the time for states to lead the way forward in measurement for mobility.

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## K-12

In K-12, we examined state measurement practices with respect to two types of metrics: 1) **College and Career Readiness Metrics**, which are captured during a student's K-12 experience and are intended to capture students' preparation for life after high school, and 2) **Postsecondary Outcomes**, which are captured after students leave the K-12 system and measure students' progress and success in postsecondary education, military, and the workforce.

**We see significant efforts to prioritize College and Career Readiness Metrics, but very few states are prioritizing the use of Postsecondary Outcomes in accountability or funding incentives.** Reporting is necessary, but thus far has not been sufficient to drive the long-term outcomes that this country needs for our students—especially students of color and those from low-income backgrounds—to find economic mobility.

	College and Career Readiness Metrics	Postsecondary Outcomes
<b>Public Reporting</b>	<b>47 states + D.C.</b>	<b>46 states + D.C.</b>
	<b>Massachusetts</b> reports annual earnings for high school graduates and enables users to disaggregate these outcomes by race/ethnicity, by gender, and by industry of employment, for every high school graduating class since 2010.	
<b>Accountability</b>	<b>41 states + D.C.</b>	<b>8 states</b>
	<b>Connecticut</b> and <b>Vermont</b> both include enrollment in postsecondary education into their federal ESSA accountability systems.	
<b>Funding Incentives</b>	<b>7 states</b>	<b>2 states</b>
	In <b>Texas</b> , districts receive up to \$5,000 for each student that enrolls in postsecondary education after high school, completes a qualifying industry credential, or enlists in the military.	
<b>Other Mechanisms</b>	<b>25 states + D.C.</b>	<b>1 state</b>
	<b>Illinois</b> students can earn a College and Career Pathways Endorsement by participating in work-based learning, completing two years of coursework and demonstrating academic readiness for non-remedial postsecondary coursework.	

To achieve improved long-term outcomes for learners and promote excellence with equity, next generation measurement and accountability systems in K-12 need to:

### Make Long-Term Success Metrics a Priority in K-12

- Incorporate College and Career Readiness Metrics and Postsecondary Outcomes into public reporting and accountability.** Every state should report on both College and Career Readiness Metrics and Postsecondary Outcomes — including enrollment and persistence in postsecondary education, job placement, and wages — and incorporate them into K-12 accountability.
- Incorporate College and Career Readiness Metrics and Postsecondary Outcomes into funding incentive models.** States that leverage “bonus” funding incentives should incorporate both metrics that are most predictive of postsecondary success and measures of how students fare in postsecondary into their bonus funding formulas.
- Ensure that college and career readiness indicators are rigorous.** In K-12 accountability, states that use college and career readiness composite-style indicators made up of multiple measures should ensure that they are rigorous and reflect high expectations for students.

- Weight College and Career Readiness Metrics and Postsecondary Outcomes substantially in accountability and funding incentive models.** States should give greater weight to long-term student outcomes than high school graduation in accountability and funding incentive models. These metrics should make up a substantial proportion (i.e., 20 percent or more) of the calculation(s).

### Drive Fairness, Equity, and Action

- Determine ratings based partly on improvement and set targets that account for incoming student characteristics.** Wherever possible, systems should encourage both current performance and improvement over time. Quantitative performance targets should take into account the incoming characteristics of students served.
- Incorporate features that promote equity into all metric-based systems.** States should disaggregate data across student characteristics and include explicit equity provisions in public reporting, accountability, and funding incentive systems. These provisions can include technical aspects of metric definition and additional weight for priority groups when determining ratings or funding.

- ⦿ **Incentive funding should leverage new money in the K-12 system.** New incentive systems should be linked, wherever possible, to significant “new” money and should focus primarily on students’ long-term outcomes.

**Improve Systems Over Time**

- ⦿ **Acknowledge and address data limitations.** States should acknowledge and account for data collection limitations in the technical design of their measurement and incentive systems, but data limitations should not preclude the inclusion of important metrics. States should also invest

in systems that enable them to collect more and more accurate data over time, especially data related to Postsecondary Outcomes (including workforce outcomes).

- ⦿ **Enable and expect measurement systems to evolve.** Metrics and measurement policies and systems should have a chance to evolve and improve over time; states should include structured and scheduled opportunities for refinement, with an eye toward including student outcomes beyond high school graduation in greater proportions over time.

## HIGHER EDUCATION

In higher education, we drilled down on two specific types of postsecondary outcomes: 1) **College Success Outcomes**, which track students’ progress and attainment in postsecondary education, and 2) **Workforce Outcomes**, which measure students’ economic success after leaving postsecondary education.

We see **significant efforts to publicly report on College Success and Workforce Outcomes, but**

**fewer efforts to incorporate Workforce outcomes in funding incentives.** Further, most states’ funding incentives account for a relatively small percentage of overall funding. **There are nascent, and growing, efforts to report on postsecondary education value by institution.** Many more states should prioritize that measurement, so that families and policymakers can better understand and differentiate the returns on investment.

	College Success Outcomes	Workforce Outcomes
<b>Public Reporting</b>	<b>46 states + D.C.</b>	<b>35 states</b>
	<p><b>Kentucky</b> has a dashboard that links college majors to the most in-demand jobs in the state and reports graduation rates, loan default rates, and typical salaries for graduates of each college. To address gaps in employment data for college graduates who leave the state, <b>Kentucky, Indiana, Ohio,</b> and <b>Tennessee</b> have teamed up to create the Multi-State Postsecondary Report Dashboard on workforce outcomes for postsecondary completers.</p>	
<b>Funding Incentives</b>	<b>29 states</b>	<b>6 states</b>
	<p><b>Florida</b> incorporates two workforce outcomes (percent of graduates earning a specified wage; median wage) into its outcomes-based funding formula for public four-year universities. <b>California</b> incorporates percent of graduates earning a living wage into its outcomes-based funding formula for community colleges.</p>	

To achieve improved long-term outcomes for learners and promote excellence with equity, next generation measurement and incentive systems in postsecondary education need to:

### Make Long-Term Success Metrics a Priority in Higher Education

- ① **Measure and publicly report on postsecondary education value.** There are many approaches to measuring the economic “value” of postsecondary education, and every state should adopt an approach aligned to its goals and available data. Measures of value should include economic mobility or whether students are able to “move up” the economic ladder. In addition to economic value, states should also consider other measures of postsecondary value for the student and the community. Results should be publicly reported at the state level, by institutional type, and by institution.
- ② **Incorporate College Success Outcomes and Workforce Outcomes into public reporting.** Every state should incorporate both College Success Outcomes and Workforce Outcomes into public reporting for each public institution of higher education.
- ③ **Weight College Success Outcomes associated with high-wage, high-growth, and/or high-demand industries more heavily.** In formulas used to determine performance-based funding for public institutions of higher education, College Success Outcomes (e.g., degrees) associated with high-wage, high-growth, and/or high-demand industries should be weighted more heavily than those that are not.

### Drive Fairness, Equity, and Action

- ④ **Align and appropriately differentiate accountability and performance metrics across different types of public postsecondary institutions.** Performance-based funding formulas for all types of public colleges (e.g., community colleges, regional universities, and flagship universities) should reflect a common set of core metrics including degree attainment and Workforce Outcomes. Beyond this common set, each type should have performance metrics tailored to institutional mission — for instance, community colleges might have a metric based on successful transfer to four-year colleges, while flagship universities might have a metric based on research produced.

- ⑤ **Determine ratings based partly on improvement and set targets that account for incoming student characteristics.** Wherever possible, systems should encourage both current performance and improvement over time. Quantitative performance targets should take into account the incoming characteristics of students served.
- ⑥ **Incorporate features that promote equity into all metric-based systems.** States should disaggregate data across student characteristics and include explicit equity provisions in public reporting, accountability, and funding incentive systems. These provisions can include technical aspects of metric definition and additional weight for priority groups when determining ratings or funding.
- ⑦ **Link funding incentives to overall funding levels, and make funding incentives a significant share of overall funding.** New incentive systems should be linked, wherever possible, to significant “new” money. Where states employ funding incentives based on outcomes, they should make up a substantial proportion (i.e., 10 percent or more) of overall funding.

### Improve Systems Over Time

- ⑧ **Acknowledge and address data limitations.** States should acknowledge and account for data collection limitations in the technical design of their measurement and incentive systems, but data limitations should not preclude the inclusion of important metrics. States should also invest in systems that enable them to collect more and more accurate data over time, especially data related to Workforce Outcomes.
- ⑨ **Enable and expect measurement systems to evolve.** Metrics and measurement policies and systems should have a chance to evolve and improve over time; states should include structured and scheduled opportunities for technical refinement.

The road ahead may be difficult, but the destination of postsecondary success for all is known, worthwhile, and attainable. Through innovation and investment in reporting, accountability, and incentive funding, states can revitalize the country’s educational engine and drive America toward a prosperous future in which opportunity is universal and economic mobility remains the rule, rather than the exception. Measurement must drive mobility.

# Introduction

In 2023, U.S. states spent nearly half a trillion dollars on public education, including more than \$360 billion on K-12 education and more than \$120 billion on higher education.<sup>1</sup> Education has many purposes, but states increasingly view such spending as an economic investment. The payoff of this investment depends largely on the extent to which the public education system helps residents develop skills and earn credentials that have value in the labor market. To maximize the return on their investment, states have an interest in developing policies that incentivize both K-12 and postsecondary institutions to prioritize and improve the outcomes that matter most for students' success in life after school. Ultimately, all states need their public education systems to serve as engines for economic growth and economic mobility.

Education — and, increasingly, postsecondary education — matters for both individuals and society. Individuals with postsecondary credentials generally earn more money and accumulate more wealth than those without. According to some estimates, individuals with bachelor's degrees earn up to 90 percent more, and those with associate degrees nearly 20 percent more, than high school graduates.<sup>2</sup> Compared to high school graduates, degree holders are more likely to be employed, have private health insurance, be in good health, be happy, retire later, and live longer; they are far less likely to be incarcerated.<sup>3</sup> Society benefits from higher tax revenues, charitable donations, rates of volunteerism and political involvement, and from lower crime. Education increases worker productivity, and increases in education levels account for up to a third of American economic growth since 1900.<sup>4</sup>

In recognition of the critical connection between education and economic success, all states use data to focus their public education systems on students' long-term outcomes in some way. Many states have made significant progress in linking measurement to postsecondary and workforce success, but every state has room to grow. In nearly every state, the K-12 and higher education sectors now issue public reporting on student progress, performance, and success outcomes. K-12 accountability has increasingly incorporated metrics related to college and career readiness, but the inclusion of postsecondary outcomes remains rare. In higher education, a majority of states now use funding formulas that

incorporate student outcomes, but only a handful include workforce outcomes. As a nation, our current approach leans heavily toward preparation for college, and much less toward career. However, leading states across the country are innovating in how they use data to help public K-12 and higher education institutions drive better long-term education and employment outcomes, and others can learn from their progress.

**To maximize the return on their investment, states have an interest in developing policies that incentivize both K-12 and postsecondary institutions to prioritize and improve the outcomes that matter most for students' success in life after school. Ultimately, all states need their public education systems to serve as engines for economic growth and economic mobility.**

Innovation is especially urgent because recent trends have been concerning. National enrollment in postsecondary education directly following high school graduation fell from 67 percent in 2018 to 62 percent in 2021.<sup>5</sup> Data released in late 2023 confirmed [earlier findings](#) that a coin flip's chance to enroll in postsecondary education directly after high school (49.9 percent) is still the status quo at America's high-poverty high schools.<sup>6</sup> Between 2010 and 2021, the overall college enrollment rate for 18-to-24 year olds fell from 41 percent to 38 percent. Undergraduate enrollment grew for the first time since the pandemic in fall 2023, but still has not approached its 2010 peak.<sup>7</sup> Lumina Foundation set a national attainment goal to raise the percentage of adults with a postsecondary credential in the United States from 38.1 percent in 2009 to 60 percent in 2025. Despite progress toward that goal, with the percentage up to 54.3 percent as of 2022, there is still work left to do. Meanwhile, education levels in the rest of the world are catching up to those of the United States, which now ranks below the Organization for Economic Cooperation and

Development (OECD) average in the percentage of 19 year olds enrolled in school, and behind 23 other OECD countries in the percentage of 20-to-29 year olds enrolled in school.<sup>8</sup>

Persistent racial disparities in college and career success make these troubling trends even more concerning. As of 2022, 59.3 percent of Asian adults ages 25 and over had a bachelor's degree or higher, compared to 41.8 percent of non-Hispanic White, 27.6 percent of Black, and 20.9 percent of Hispanic adults.<sup>9</sup> According to the U.S. Department of Labor, average weekly earnings track these racially disparate education patterns, with Asian workers earning \$1,168.82, compared to \$1,046.52 for White, \$791.02 for Black, and \$762.80 for Hispanic/Latino workers.<sup>10</sup>

These trends and disparities demonstrate a need for greater attention to postsecondary success in both K-12 and higher education systems, with shared focus on economic mobility as a north star goal. Data and measurement can be powerful tools to drive this change. What gets measured gets valued. At the system level, metrics and targets signal priorities and drive resources. As [prior research](#) points out, educators and students in schools respond to clear goals, transparent data, and systems that highlight successes and areas for improvement.<sup>11</sup> Helping more students, especially more students of color, earn a postsecondary credential of value should continue to be a foundational goal for every state going forward.

However, college degree attainment should not be the only goal, or even the ultimate goal, and states should be thoughtful about how they incentivize and invest in it. More than half of Americans now doubt that college is worth the cost, and there is some evidence to support their skepticism.<sup>12</sup> The college wage premium remains robust, but it has been falling since 2020.<sup>13</sup> The college wealth premium, which tracks the impact of college attainment on net worth (as opposed to wages), has been falling for decades, and for Black heads of household from the most recent birth cohort, it is now statistically indistinguishable from zero.<sup>14</sup> Rising levels of debt and the rapidly increasing cost of college are likely explanations of this trend. Researchers also note that not all postsecondary credentials — not even all four-year college degrees — have equal economic value. At the entry level, students with arts, humanities and liberal arts majors earn about 24 percent less than those with STEM-related majors, and 29 percent less

than those with health-related majors.<sup>15</sup> Meanwhile, more than half of recent four-year college graduates are underemployed, holding jobs that don't require a bachelor's degree — and even 10 years after graduation, 45 percent are still underemployed.<sup>16</sup> Given these trends, how can the American public education system respond to recapture its place as the world's foremost engine of economic mobility?

The evidence is telling us that our education system needs to broaden its focus from “go to college” to “get on a meaningful educational pathway.”<sup>17</sup> Though they may seem to lead in disparate directions, the paths to

**Going forward, states' data and incentive systems for public education need to do a better job of incorporating a pathways-based ethos, reflecting the conviction that the best schools are those that best prepare students for success in life beyond school.**

high wages and generational wealth for individuals, to economic growth and fiscal efficiency for society, and to increased equity and opportunity across groups are all actually the same path — a pathway. Going forward, states' data and incentive systems for public education need to do a better job of incorporating a pathways-based ethos, reflecting the conviction that the best schools are those that best prepare students for success in life beyond school.

As states move toward a more pathways-based measurement framework, they will have much to learn from one another. Both college *and* career outcomes are essential in this new educational paradigm, and the cultural and technical shifts necessary won't happen overnight. A task force convened in 2014 at the dawn of the Every Student Succeeds Act (ESSA) era lamented “What's measured gets valued by schools, but most state accountability systems today don't measure or value career readiness.”<sup>18</sup> Since then there has been significant progress in the field, though the road ahead remains long — and likely winding.

Data is one of the strongest levers states have at their disposal to drive college and career success,

and they are pulling it in a variety of ways. Every state incorporates some combination of metrics related to postsecondary success into their measurement and incentive systems for K-12, higher education, or both. We organize these approaches in four main categories:

- ① **Public Reporting:** Data reports and/or dashboards that are available to the general public and have no formal stakes. They exert indirect incentive pressure by promoting general awareness and accountability through transparency. They can also provide education consumers with information to “vote with their feet” in selecting schools and colleges that meet their needs.
- ② **Accountability:** Data-based measurement systems that summatively rate districts and/or schools and include formal consequences based on performance. Consequences can include corrective action, interventions, and intensive support opportunities.
- ③ **Funding Incentives:** Systems that award state funding to districts, schools, or institutions that meet target outcomes. These systems are almost always positively framed, even though they can ultimately result in some institutions receiving less state funding than they would in a system that did not predicate funding on target outcomes. The extent to which funding incentives are perceived as bonuses for those that receive them or penalties for those that do not depends both on technical details and on state history and politics.
- ④ **Other Mechanisms:** Uses of data that are intended to exert a positive influence on behavior and outcomes but do not fall into the other three categories. They go beyond simple reporting, but they do not directly influence institutional governance or funding. Some of these mechanisms aim to influence student behavior, rather than institutional behavior. Graduation requirements and various forms of special recognition are included among these.

# The K-12 Education Landscape

## OVERVIEW

Data-based district and school accountability has been a salient aspect of the K-12 education landscape for decades. The federal Elementary and Secondary Education Act (ESEA), first passed in 1965 and reauthorized several times since then — most recently as No Child Left Behind (NCLB) in 2001 and the Every Student Succeeds Act (ESSA) in 2015 — has been a primary catalyst and framework for such accountability.

NCLB required annual standardized testing and districts to make “adequate yearly progress” toward proficiency for all students according to the tests.<sup>19</sup> Districts that did not demonstrate adequate yearly progress faced successive interventions, starting with the provision of technical assistance and culminating in potential closure, state turnaround, or other restructuring. NCLB also required states to set and meet targets related to high school graduation rates.<sup>20</sup>

ESSA created a framework that offered states more flexibility in the design and implementation of their accountability systems, while at the same time adding new required elements. Under ESSA, every state must include four indicators: reading and math achievement (i.e., test scores), progress toward English language proficiency for English learners, high school graduation rates, and — for schools that are not high schools — another state-selected academic progress indicator. In addition to those four, states must also identify and include a School Quality and Student Success (SQSS) indicator. Many states have incorporated some measure of postsecondary readiness or success into their SQSS indicator, and they are doing this in many ways. Furthermore, some states complement federal accountability via ESSA with a separate state accountability system to identify districts and schools in need of intervention or support.

In addition to consequence-based accountability, states use various forms of public reporting to shine a light on district and school performance. ESSA requires that every state publish online report cards for the state overall and for each public district and school. ESSA initially required report cards to include data on the five accountability indicators outlined above, in addition to a number of other measures including per-pupil expenditures, school climate and safety, teacher qualifications, and postsecondary enrollment.<sup>21</sup>

However, the requirement to report postsecondary enrollment has since been softened to require such reporting “depending on the availability of data.”<sup>22</sup> In addition to report cards, some states voluntarily maintain other public-facing reports and dashboards enabling the general public to learn more about K-12 districts and schools. In this report, we categorize both ESSA-required report cards and any other public-facing reports and dashboards not tied to formal stakes under “Public Reporting.”

Beyond formal accountability and public reporting, a handful of states have implemented incentive funding to reward high-performing districts. Incentive funding provides bonuses to districts based on measures of students’ postsecondary preparation, readiness, and/or success. A number of states employ other mechanisms to incentivize postsecondary readiness and/or success through various forms of requirement and recognition. Some of these mechanisms, like graduation requirements and diploma endorsements, seek to influence student choices and performance as much as those of districts and schools.

In K-12, we identify two major types of long-term outcomes<sup>23</sup> states incorporate into their measurement and incentive systems: (1) College and Career Readiness Metrics and (2) Postsecondary Outcomes:

- ✓ **College and Career Readiness Metrics** encompass a range of measures captured during a student’s high school experience and are thought to influence and predict students’ later success in postsecondary education, the workforce, and the military. These include but are not limited to participation and success in early postsecondary opportunities (e.g., Advanced Placement, International Baccalaureate, and dual credit/enrollment) and high-quality CTE pathways, participation in work-based learning experiences, and attainment of industry-based credentials and certificates during high school. They may also include college access measures like college application and/or acceptance rates, college match rates, and FAFSA and/or scholarship completion rates. Some states incorporate many such measures into a composite college and career readiness indicator.

 **Postsecondary Outcomes** are captured after students graduate from high school. They demonstrate students' progress and success in postsecondary education and the workforce. These include measures of postsecondary education enrollment (including in two-year

colleges, four-year colleges, and short-term certificate or training programs), persistence, and credential attainment. They may also include measures related to military enlistment, employment, and earnings.

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## FINDINGS

We conducted a national scan to identify trends and promising practices in how states use data to incentivize K-12 districts and schools to prioritize students' long-term outcomes.

Overall, we found that all states publicly report on College and Career Readiness metrics or Postsecondary Outcomes, and nearly all states include College and Career Readiness metrics in federal or state accountability. However, fewer than 10 states include Postsecondary Outcomes in K-12 accountability. Funding incentives are emerging as a promising lever to increase K-12's focus on postsecondary success, including Postsecondary Outcomes, but they are new to the K-12 sector and still relatively rare.

Specifically, we found that:

### Public Reporting

**TAKEAWAY:** In K-12, public reporting on metrics thought to be predictors of postsecondary success is universal, and public reporting on some form of Postsecondary Outcome is nearly universal. Postsecondary Outcome reporting focuses primarily on college-related outcomes, though some states also report workforce-related outcomes. All 50 states plus D.C. publicly report at least one College and Career Readiness Metric or Postsecondary Outcome.

- **43 states plus D.C.** publicly report both College and Career Readiness Metrics *and* Postsecondary Outcomes.
- **4 states** publicly report *only* on College and Career Readiness Metrics.
- **3 states** publicly report *only* on Postsecondary Outcomes.

### Accountability

**TAKEAWAY:** Nearly all states incorporate either College and Career Readiness Metrics or Postsecondary Outcomes into federal or state accountability, but few incorporate Postsecondary Outcomes, and only one incorporates workforce outcomes. The specific measures states incorporate vary considerably, as do the weights they attach to these measures when determining overall ratings.

- **41 states plus D.C.** incorporate at least one College and Career Readiness Metric or Postsecondary Outcome into their federal or state accountability systems.
- **8 states** incorporate *both* College and Career Readiness Metrics *and* Postsecondary Outcomes into the federal or state accountability systems.
- **33 states plus D.C.** include *only* College and Career Readiness Metrics in their accountability systems.
- All **8 states** that include Postsecondary Outcomes *also* include College and Career Readiness Metrics.

### Funding Incentives

**TAKEAWAY:** Funding incentives related to student outcomes are still nascent in K-12, and incentive programs that incorporate Postsecondary Outcomes are extremely rare. However, several states have made notable recent advances.

- **7 states** have funding incentive systems that incorporate either College and Career Readiness Metrics or Postsecondary Outcomes.
- Of these, **5 states** include only College and Career Readiness Metrics.

- Just **2 states** include Postsecondary Outcomes in their K-12 funding incentives. Texas includes enrollment in postsecondary education following high school graduation. Indiana includes attainment of an associate degree prior to high school graduation.

## Other Mechanisms

**TAKEAWAY:** Beyond public reporting but short of accountability or funding incentives, roughly half of states have other ways of using data to encourage adults and students in public education systems to prioritize postsecondary success.

- 25 states plus D.C.** include some sort of college and career readiness requirement for graduation, diploma endorsement, or public recognition of schools with strong postsecondary outcomes.

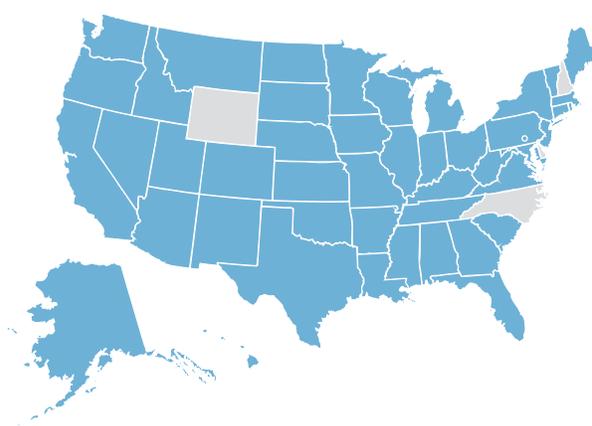
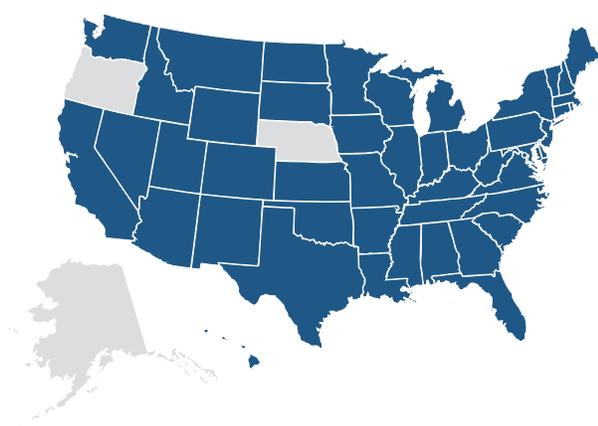
## NATION AT A GLANCE

The maps below summarize how each state is leveraging public reporting, accountability, funding incentives, and other mechanisms in the public K-12 sector to encourage prioritization of students' long-term outcomes. Please see Appendix A for more detailed information on the research methodology.

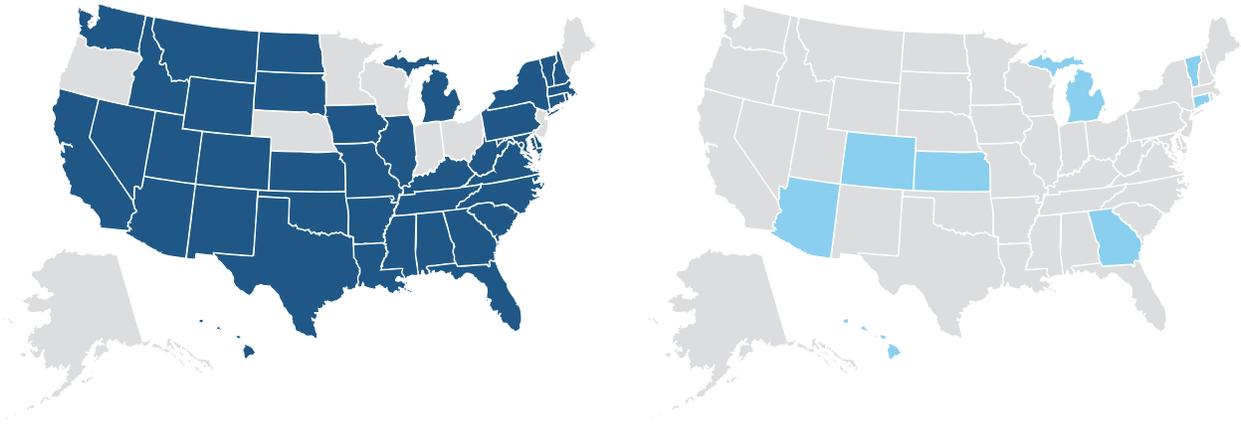
**College and Career Readiness Metrics** are captured during a student's K-12 experience; they influence and predict students' success in life after high school. Measures include the state's college and career readiness indicator, advanced coursework participation and success, high-quality CT pathway participation and success, work-based learning, assessments, and credential attainment in high school.

**Postsecondary Outcomes** are captured after students leave the K-12 system; they are linked to where students attended high school and directly measure students' progress and success in postsecondary education, military, and the workforce. Measures include postsecondary enrollment and persistence, degree attainment, job placement and employment rates, wages, and military enlistment.

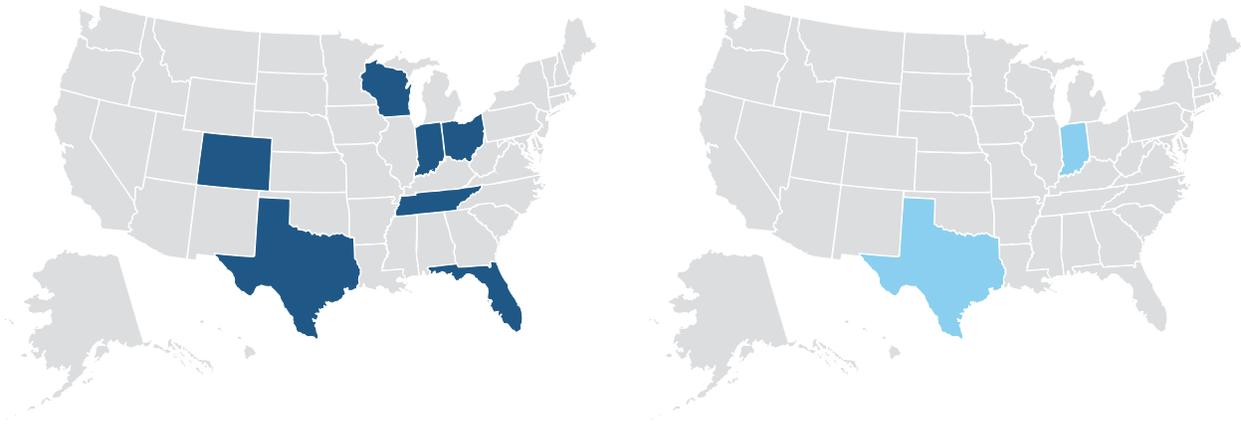
### PUBLIC REPORTING



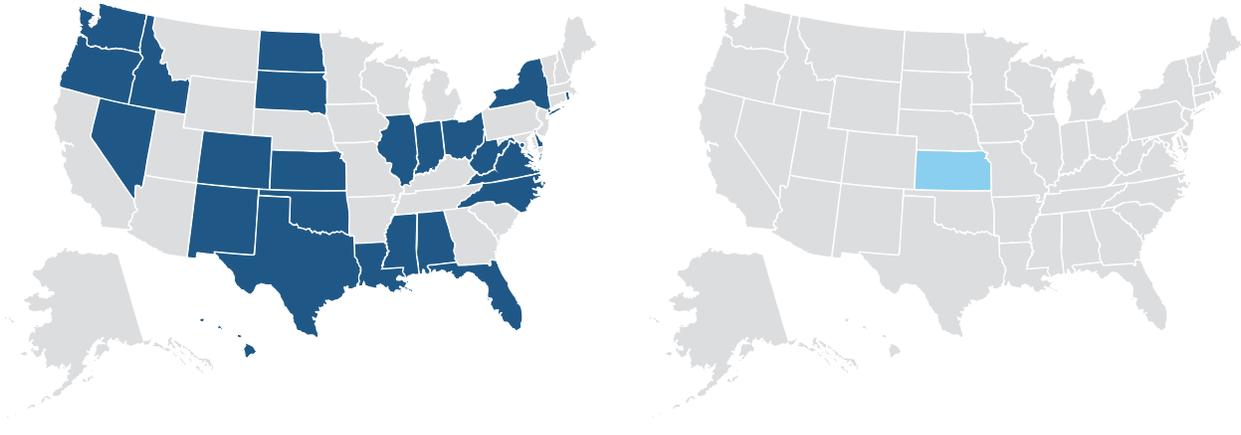
**ACCOUNTABILITY**



**FUNDING INCENTIVES**



**OTHER MECHANISMS**



## DEEP DIVE

### Public Reporting

Every state uses some form of public reporting to encourage districts and schools to prioritize long-term outcomes for students. Public reporting promotes accountability through transparency; however, sometimes these reports are hard to find, making the degree of transparency dependent on accessibility. As a bar for this report, we only “counted” states as publicly reporting a particular type postsecondary measure (either a College or Career Readiness Metric or a Postsecondary Outcome) if they publicly reported that measure at the district and/or school level.

The most common vehicle for reporting College and Career Readiness Metrics is state-issued school report cards. Some states show district, school, and state-level data side-by-side or allow users to compare outcomes for multiple schools. Many states also show results disaggregated by race and ethnicity, English

language learner status, disability status, and whether students are living in poverty.

Of particular interest is how states report on students’ Postsecondary Outcomes. The most common Postsecondary Outcome that states publicly report is enrollment in postsecondary education for public high school graduates. Some states lead the way on reporting more distal postsecondary education outcomes like eligibility for credit-bearing (i.e., non-remedial) coursework, first-year success (e.g., GPA, gateway course completion), persistence (i.e., continuing enrollment), and degree/credential attainment. **Georgia’s High School Graduate Outcomes** report, produced by the Governor’s Office of Student Achievement, allows users to follow each K-12 cohort’s progress since high school graduation, including how many have earned a postsecondary credential or are still enrolled in postsecondary

## POSTSECONDARY OUTCOMES

Below are some of the postsecondary outcomes states publicly report. At a minimum, states should publicly report on postsecondary enrollment of their high school graduates, and ideally incorporate one or more of the other success outcomes outlined below. While few states currently report on wages, employment rates, and military service of their high school graduates, these important outcomes paint a holistic picture of students’ postsecondary pathways and success.

### College Success Outcomes

- ⦿ **Postsecondary Enrollment or College Going Rate** — The percentage of high school graduates who enroll in postsecondary education
- ⦿ **Readiness for Non-Remedial Coursework** — The percentage of students entering college who demonstrate preparedness for college-level coursework
- ⦿ **Persistence** — The percentage of students who continue their education after the first semester of enrollment. This is typically measured in terms of fall-to-fall persistence (enrolling the fall semester following the first fall enrollment).
- ⦿ **Gateway Course Completion** — The percentage of students who complete entry-level, credit-bearing mathematics and English courses
- ⦿ **Credit Accumulation** — The number of credits students earn in their first semester or year, or the

percentage of students accumulating 15 credits by the end of the first semester or 30 credits by the end of the first year

- ⦿ **GPA** — The average GPA of students in their first semester or first year of college
- ⦿ **Pass Rates** — The percentage of students passing all classes their first semester/year

### Workforce Outcomes

- ⦿ **Wages** — Median wages of high school graduates 1, 3, 5+ years following high school graduation
- ⦿ **Employment** — The percentage of high school graduates employed in the state

### Military Outcomes

- ⦿ **Enlistment** — The percentage of high school graduates who enlisted in the military

education. It also reports on the need for remedial college classes in English and mathematics and on the highest postsecondary credential earned at five and eight years following high school graduation.

**Arizona's** Board of Regents produces a High School Report Card that shows the two- and four-year colleges where students most commonly enrolled, the percentage of students eligible for non-remedial coursework, the percentage of students earning a C or higher in college-level mathematics and English, first-

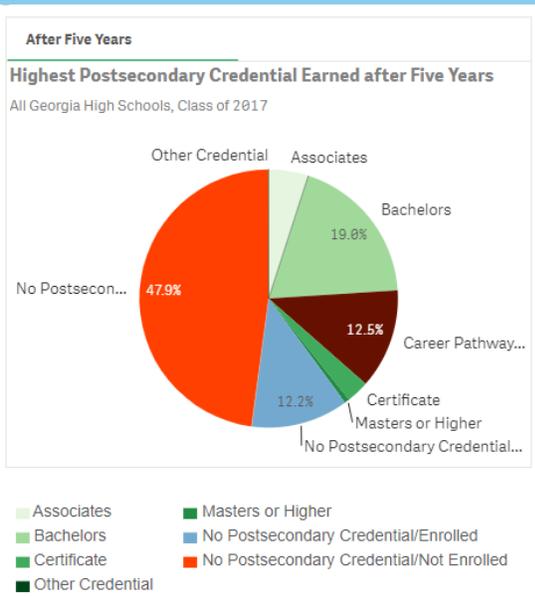
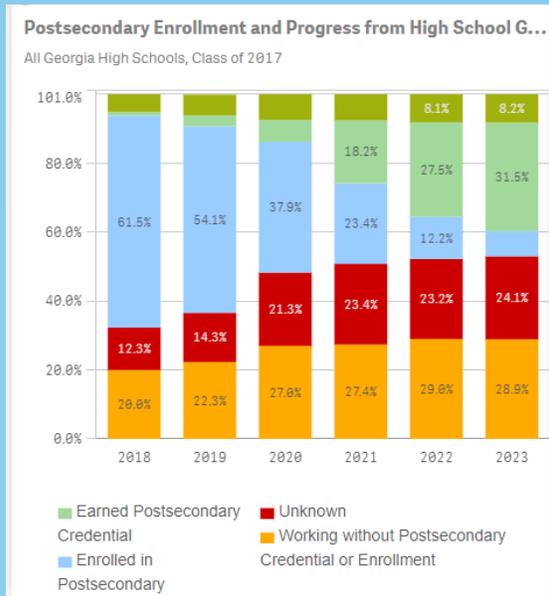
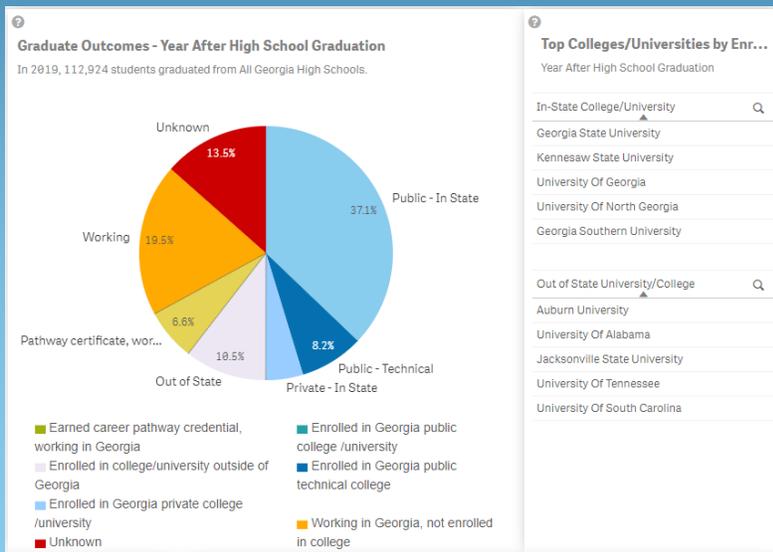
semester GPA, fall-to-spring college persistence rates, and college completion/credential attainment rates.

**Mississippi's** Outcomes for High School Graduates report shows — statewide, by district, and by school — graduates' rates of enrollment in postsecondary education (including in technical programs), their postsecondary fields of study, first-year outcomes (including average GPA, credits earned, and course pass rates), one-year persistence rates, and postsecondary certificate and degree attainment rates.

## VISUALIZING GRADUATE OUTCOMES IN GEORGIA

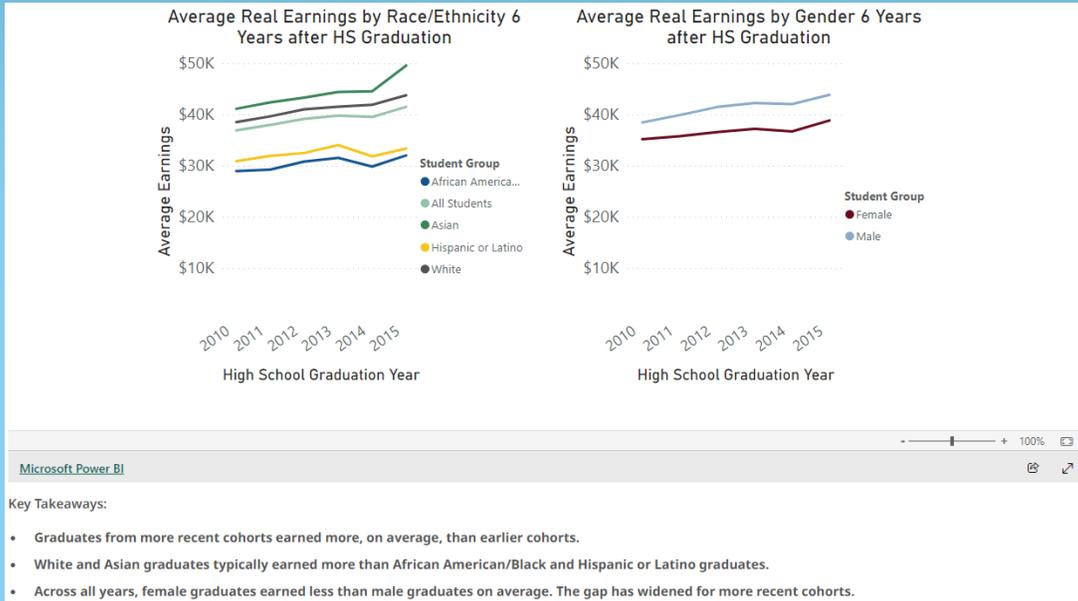
Georgia's High School Graduate Outcomes report is produced annually by the Governor's Office of Student Achievement and uses data from the statewide longitudinal data system. For each high school, users can view where students are one year after high school including the type of college or working in the state of Georgia.

Additionally, users can see the postsecondary enrollment and progress of a cohort, including students who are still enrolled, earned a credential, or stopped out. A chart also shows the highest credentials earned by each cohort five and eight years after high school graduation.



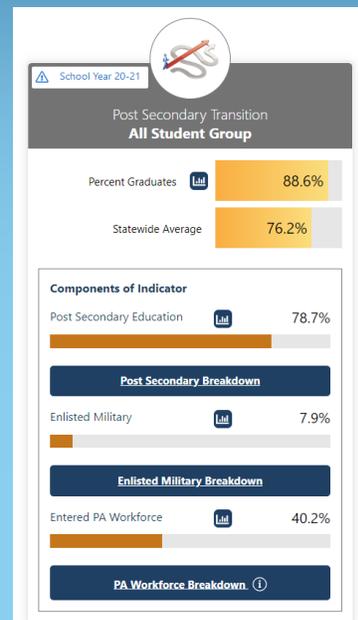
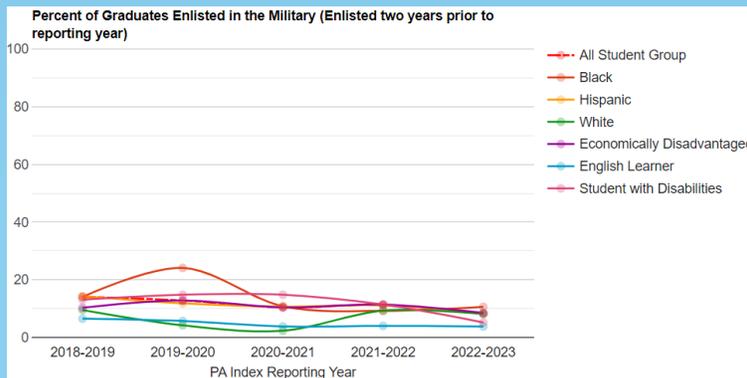
## MEASURING WAGES IN MASSACHUSETTS

The Massachusetts [College & Career Outcomes Report](#) shows data on earnings for high school graduates six years after graduation. The dashboard displays earnings by race/ethnicity and gender to allow users to identify equity gaps. The report also includes key takeaways from the data.



## POSTSECONDARY TRANSITIONS IN PENNSYLVANIA

Pennsylvania's Future Ready PA Index, the state's school report card, includes data on whether high school graduates enroll in higher education, enlist in the military, or enter the Pennsylvania workforce. Users can also see a breakdown of each percentage by race/ethnicity and for economically disadvantaged students, ELL students, and students with disabilities. For many states, military data is a challenge to gather and report, so the fact that Pennsylvania has identified a way to incorporate it is notable.



Some states go beyond college outcomes, including workforce and military outcomes for public high school graduates. In addition to college enrollment and persistence, the **Massachusetts** [College & Career Outcomes Report](#) includes average real earnings six years after high school graduation, disaggregated by race/ethnicity and by gender. It also allows users to drill down into average annual earnings in each successive year following high school graduation, and to disaggregate these outcomes by race/ethnicity, by gender, and by industry of employment, for every high school graduating class since 2010. **Indiana's** [Graduates Prepared to Succeed](#) dashboard includes the percentage of high school graduates employed or enrolled in Indiana one year following graduation, the percentage with sustained employment in Indiana one year following graduation, and median annual wages in the Indiana workforce five years following graduation. It reports these outcomes as part of a cradle-to-career reporting continuum that also includes key academic outcomes in the Pre-K-2, 3-8, and 9-12 grade bands for every district and school in the state. In addition to entry into postsecondary education and the workforce, **Pennsylvania's** [Future Ready PA Index](#) reports on the percentage of students that enlist in the military, and disaggregates this by race/ethnicity and other demographic characteristics.

### Accountability

For the purposes of this report, “accountability” includes both federal accountability via ESSA and separate state accountability systems. The vast majority of states (41 plus D.C.) include College and Career Readiness Metrics in their accountability systems, but only eight include Postsecondary Outcomes. Thirty-six states plus D.C. include long-term outcomes (either College and Career Readiness Metrics or Postsecondary Outcomes) in accountability via their federal ESSA plans; five do so via state accountability.

College and Career Readiness Metrics are usually included in accountability in the form of a college and career readiness composite indicator that incorporates several such metrics. In some states, students only need to meet the benchmark associated with one metric in order to “count” for the composite indicator; in others, they need to meet two or more. The most common way for students to demonstrate college and career readiness is via participation and/or success in early postsecondary opportunities (EPSOs) like AP, IB, and dual credit/enrollment — 34 states plus D.C. include such a metric in their accountability systems. Of these, most focus on EPSO *success* (i.e., earning credit), though some count only EPSO *participation*. “Success” is a higher bar, requiring students to

## LONG-TERM OUTCOMES IN ACCOUNTABILITY

Below are the most common college and career readiness metrics observed in states’ accountability systems along with how many states measure each metric. Most states allow students to demonstrate college and career readiness via a menu of options made up of a subset of the following metrics.

### Indicators of College & Career Readiness

- 34 states plus D.C. use EPSO participation and/or success
- 23 states use ACT/SAT
- 22 states use earning a certificate or credential
- 15 states use measures related to CTE
- 13 states use ASVAB
- 12 states use work-based learning
- 10 states use job skills assessment (primarily ACT WorkKeys)
- 6 states use meeting college entrance requirements

- 5 states use identified as needing remediation
- 5 states use biliteracy
- Additional metrics used by three or fewer states include: GPA, military enlistment, service-learning or community service, attendance, associate degree attainment by high school graduation, advanced diplomas or diploma endorsements, JROTC credits, co-curriculars, and FAFSA completion

### Postsecondary Outcomes Measures

- 7 include postsecondary enrollment
- 1 includes employed in the state and earning wages

pass a dual credit course or earn a qualifying score on an exam, and it has a greater impact on future college degree attainment than participation alone. Many states also include earning an industry-based certificate or credential at high school graduation. ACT and SAT scores remain a common way for students to demonstrate college and career readiness, despite the rollback of test-based admissions requirements in the wake of the COVID-19 pandemic.

Of the eight states that include Postsecondary Outcomes in their accountability system, Connecticut, Georgia, Michigan, and Vermont include them in federal accountability; Arizona, Colorado, Hawaii, and Kansas include them in state accountability. Enrollment in postsecondary education is the most commonly used postsecondary indicator. On paper, **Vermont's** "Post-Graduate Outcomes" indicator counts students who enroll in college, enroll in a trade school, enlist in the military, or are employed within 16 months following high school graduation, making it the only state in the country to include a workforce outcome in K-12 accountability. In practice, however, the trade school, military enlistment, or employment elements of the indicator have not yet been implemented.

A common challenge with including Postsecondary Outcomes — and a primary reason some states are hesitant to include it in their accountability systems — is data collection. For example, many states struggle to collect postsecondary education enrollment data for students who go to college out of state or who do not have a social security number. The National Student Clearinghouse, which most states use to track college enrollment, does not capture enrollments in military academies, nor does it capture information for the roughly five percent of students who choose to block the release of their personal information. Capturing workforce outcomes is even more challenging, especially for students who move out of state, but also for those who work jobs that do not report for unemployment insurance purposes (e.g., federal employees and self-employed individuals). **Vermont** and **Connecticut** both acknowledge these concerns and address them by setting a 75 percent target for postsecondary entry and pro-rating the number of points awarded to districts based on the percentage of the target they achieve.

College and Career Readiness Metrics and Postsecondary Outcomes make up only a portion of a district or school's score in any accountability system. The "weight" associated with these measures

— i.e., the percentage of points they contribute to an overall summative rating — impacts their perceived significance among districts and schools. In theory, measures with higher weights should exert stronger incentive pressure, and therefore greater influence on organizational priorities and behaviors, than measures with lower weights. ESSA requires states to allocate the majority of total points available based on academic indicators, i.e., based on the four non-SQSS metrics. In practice, states allocate between five and 30 percent of total points available based on College and Career Readiness Metrics, with most states in the 10 to 20 percent range.<sup>24</sup> Weights for Postsecondary Outcomes are lower, ranging from one percent to 10 percent. **Colorado's** state accountability system is an outlier at the high end of the range, allocating 30 percent of points based on College and Career Readiness Outcomes and 2.3 percent based on Postsecondary Outcomes. **Vermont's** federal accountability system allocates 10 percent of points based on College and Career Readiness Outcomes and 10 percent based on Postsecondary Outcomes, weighting the latter more than any other state.

### Funding Incentives

In the K-12 space, funding incentives are a newer mechanism for states to incentivize districts and schools to prioritize long-term outcomes for students. They are structurally similar to the performance-based funding models that have been common in higher education for four decades. For this analysis, we focus specifically on incentive funding for districts and schools (rather than students or teachers).

Seven states offer funding incentives to districts or schools that produce strong long-term outcomes for students. In four of these — Colorado, Florida, Ohio, and Wisconsin — funding incentives are based primarily on the extent to which students earn industry-based credentials while in high school. In **Ohio**, districts receive \$1,250 for each qualifying credential students earn. In **Colorado**, where districts receive up to \$1,000 for each student that completes an industry credential or qualifying work-based learning experience, the number of industry credentials earned by graduates quadrupled in the six years following the introduction of incentives. The state allocates a fixed amount of incentive funding, and distributes it in order of credential "tiers" linked to high-demand, high-growth jobs. Students that are eligible for free or reduced price lunch generate 20 percent more incentive funding per pupil than students that are not.

In Texas, Indiana, and Tennessee, funding incentives go beyond industry credentials. In 2019, **Texas** passed House Bill 3 (HB3), which created and funded a “College, Career, and Military Readiness Outcomes Bonus” for districts. Districts can earn bonus funding when students earn qualifying test scores *and* Postsecondary Outcomes. Specifically, districts earn bonus funding for the number of students above a set threshold that either (1) earn a qualifying test score *and* earn an associate degree prior to high school graduation or enroll in postsecondary education following it; (2) earn a qualifying test score *and* earn a qualifying industry credential or certificate; or (3) earn a qualifying score on the Armed Services Vocational Aptitude Battery (ASVAB) *and* enlist in military service. HB3 enables districts to earn \$5,000 per student for students who are economically disadvantaged and meet the aforementioned criteria and \$3,000 for those who are not; in addition, students who are enrolled in special education and meet criteria generate an extra \$2,000 per student. A total per-student incentive of up to \$7,000 is substantial, given that Texas allocates just \$6,160 per student in base funding. In

**Indiana**, House Bill 1001 from the 2023 legislative session offers a menu of incentives including \$40 for every dual enrollment or dual credit hour earned by a student, \$500 for every graduate earning an approved credential, \$1,500 for every student earning the Indiana College Core 30, or \$2,500 for every student earning an associate degree by graduation.

**Tennessee** created a new school funding formula, Tennessee Investment in Student Achievement (TISA), which took effect in 2023 and enables districts to earn an outcomes bonus providing an additional 10-20 percent of base funding — \$686 or \$1,372, respectively, for the 2023-2024 school year — for students who meet criteria. TISA is structurally similar to HB3, but it awards funding based on a combination of test scores and College and Career Readiness Metrics, rather than test scores and Postsecondary Outcomes. Specifically, students generate bonus funding if they either (1) earn a qualifying ACT score and earn two EPSO credits; (2) earn a qualifying ASVAB score and earn two EPSO credits; or (3) earn three EPSO credits (defined to include high-value industry credentials).

## INCENTIVIZING CAREER DEVELOPMENT IN COLORADO

In 2016, Colorado passed the Career Development Incentive Program (CDIP) aimed at increasing the number of high school students earning certificates, gaining real-world experience, and landing in-demand jobs after graduation. Schools receive up to \$1,000 each time a student completes an industry certification linked to a high-demand job; completes a postsecondary internship, residency, or apprenticeship program tied to key industry needs; or completes an AP computer science course. During the first year of the program, students earned 3,106 credentials and by the 2021-2022 school year, Colorado students earned 12,573 credentials — more than quadrupling the annual number of credentials earned in six years’ time. The program has been particularly impactful for underrepresented students: 50 percent of participating school districts in the 2021-2022 school year were rural and 40 percent of students in the 2022-2023 school year were BIPOC.

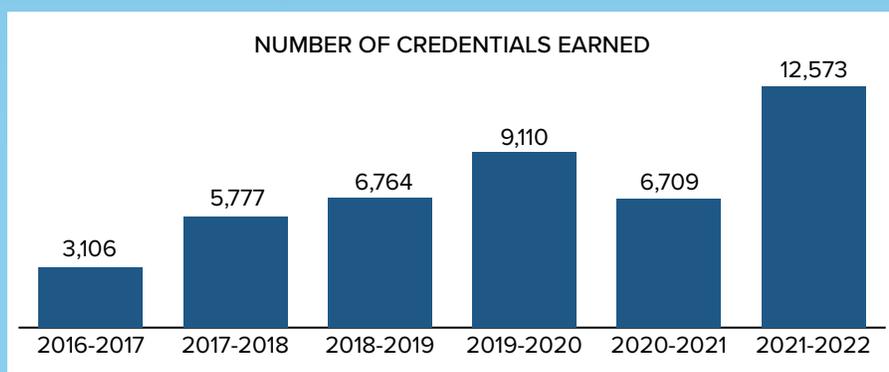


Chart taken from the Colorado Succeeds case study on the Career Development Incentive Program: <https://coloradosucceeds.org/resource/career-development-incentive-program/#OutcomeImpact>

## Other Mechanisms

In addition to public reporting, accountability, and funding incentives, states use other data-based mechanisms to encourage districts to prioritize long-term outcomes for students. These include special recognition for districts and schools, student graduation requirements, and special diploma endorsements.

Of these, student graduation requirements may exert the strongest incentive pressure. However, critics argue that they can inappropriately penalize students who do not meet them. Twelve states plus D.C. have graduation requirements that incorporate College and Career Readiness Metrics. In **Virginia**, students must complete either an early college course (such as AP, IB, or dual enrollment), a high-quality work-based learning experience, or earn a CTE credential in order to graduate. **Indiana** students must demonstrate employability skills via project-based learning, service-based learning, or work-based learning *and* demonstrate postsecondary-ready competencies by earning an honors diploma, college credit, or industry-recognized credential, completing a federally-recognized apprenticeship, or achieving CTE concentrator status.<sup>25</sup> New graduation requirements continue to emerge, with at least two states developing new requirements to be implemented beginning with the high school graduating class of 2027. In **Oregon**, students will need to earn a half credit in Higher Education and Career Path Skills by receiving instruction on applying to jobs, apprenticeship programs, and college, and by developing career-related skills through experiential learning. In **Kansas**, students will need to complete two “postsecondary assets,” including earning an industry-recognized credential, completing an apprenticeship, or earning nine or more college credit hours.

Fourteen states offer an optional diploma endorsement or seal to incentivize long-term outcomes. In **Illinois**, students can earn a College and Career Pathways Endorsement by participating in work-based learning,

completing two years of coursework (including at least six early college credits) in a course sequence aligned to credentials of value, and demonstrating academic readiness for non-remedial postsecondary coursework. In **Mississippi**, students can pursue endorsements that require completing a dual credit course, completing a work-based learning experience, or earning a national credential. Additionally, students in Mississippi must complete a statewide college and career readiness course that includes units on financial aid, preparing for a career and internship, and effective college transitions. **North Carolina** offers five diploma endorsements including a Career Endorsement (completion of a rigorous CTE course of study), College Endorsement (readiness for entry into the community college system), College/UNC (indicating readiness for entry into a four-year university in the University of North Carolina System), and NC Academic Scholars (indicating the student has completed a rigorous curriculum preparing them for postsecondary education).

At least two states incentivize prioritization of long-term outcomes by providing special recognition for districts and schools that excel. **Texas** offers a postsecondary readiness “distinction designation” on district and school report cards. A district can earn it when at least 55 percent of its campuses’ “postsecondary readiness indicators” are in the state’s top quartile; a high school earns it when at least a third of the postsecondary readiness indicators for which it has data are in the state’s top quartile. **Kansas’s** [Kansas Can Star Recognition Program](#) recognizes districts that exceed expectations on certain measures, including quantitative measures of “postsecondary success.” Districts can earn the Postsecondary Effectiveness Star Award based on how many of their students have earned an industry-recognized certification or a higher education degree or continued their education two years following graduation. The state estimates how many students will meet these criteria using a formula that accounts for risk factors like poverty, chronic absenteeism, and student mobility, and then rewards districts that exceed those estimates.

# The Higher Education Landscape

## OVERVIEW

The higher education landscape differs considerably from the K-12 landscape. As with K-12 districts, states use data to incentivize higher education institutions to prioritize students' long-term success. However, unlike ESSA in K-12, no federal law requires states to evaluate, monitor, or intervene in higher education institutions based on specific metrics.<sup>26</sup> For this reason, K-12-style accountability is virtually nonexistent in higher education, whereas funding incentives are far more common. Higher education is more market-oriented than K-12 education — where attendance is compulsory and school choice is comparatively limited — and it is also far more dependent on student tuition and fees. In the four decades following 1980, the inflation-adjusted price to attend a four-year college increased by 180 percent.<sup>27</sup> Additionally, state investment in higher education decreased over 15 years ago and has yet to return to its peak.<sup>28</sup> As a result, public reporting, particularly related to college value and return on investment, plays a large and increasingly prominent role in higher education.

Oversight structures in higher education are also more variable than in K-12. Some states have a single statewide board that oversees all public institutions of higher education, while others have separate governance structures for community colleges, regional universities, and flagship universities. Further, some boards are governing boards, which possess broad authority and manage and oversee most functions for member institutions, including appointing chief executives of institutions and establishing faculty and personnel policies. Some boards are coordinating boards, which have more limited authority, typically

including oversight for planning and/or budgeting processes, but not for management and personnel decisions. This landscape contributes to significant variation, both within and across states, in how postsecondary institutions are incentivized to prioritize students' long-term outcomes.

Historically, public institutions of higher education were funded and incentivized primarily based on student enrollment. Their bottom lines still depend largely on enrollment, which generates both public funding from the state and private funding from student tuition. Over the past 40+ years, states have increasingly looked to metrics beyond enrollment to drive institutional focus and behavior. Unsurprisingly, almost all of these metrics are Postsecondary Outcomes. We identify two major sub-types of Postsecondary Outcomes: (1) College Success Outcomes and (2) Workforce Outcomes:

 **College Success Outcomes** are indicators of students' progress and attainment in postsecondary education. They include gateway course completion, credit accumulation, persistence, transfers to four-year colleges, degrees and credentials awarded, and graduation rates. Some states include related measures like time to degree and student debt.

 **Workforce Outcomes** measure how students fare once they leave the postsecondary education system. They include employment and job placement rates, fields of employment, earnings, and return on investment in postsecondary education.

## FINDINGS

We conducted a national scan to identify trends and promising practices in how states use data to incentivize public colleges and universities to prioritize students' long-term outcomes. Overall, we found that the use of College Success Outcomes in public reporting was nearly universal, and that Workforce Outcomes were far more commonly included in no-stakes public reporting than in formula-based funding incentives. About half of states use some form of funding incentives, but that the metrics used and the weights associated with them vary widely.

### Public Reporting

**TAKEAWAY:** Nearly all states publicly report College Success Outcomes, and about two-thirds of states publicly report Workforce Outcomes. Despite growing external pressure to report on metrics related to postsecondary value and/or return on investment, states are still wrestling with how best to do so.

- **46 states plus D.C.** publicly report College Success Outcomes.
- **35 states** publicly report both College Success Outcomes and Workforce Outcomes.
- **11 states plus D.C.** report *only* College Success Outcomes. No state publicly reports *only* Workforce Outcomes.
- Only a **handful of states** publicly report metrics related to return on investment and/or postsecondary value.

### Accountability

**TAKEAWAY:** Accountability in higher education has historically looked different from accountability in K-12, but that may start to change as new federal rules come into effect over the next several years.

- Historically, higher education accountability has been in the form of **compliance reporting, loan default rates, and accreditation standards.**
- The federal government's new gainful employment rule and financial value transparency framework may create a **new form of accountability in higher education** that more closely resembles the status quo in K-12.

### Funding Incentives

**TAKEAWAY:** Funding incentives now have a long history in higher education, but they have had a mixed track record in promoting positive change. Recent performance-based funding systems seek to address shortcomings of prior iterations by including longer-term outcomes, influencing larger shares of public funding, and including provisions to promote equity.

- **29 states** use some form of performance-based funding (also known as “outcomes-based funding”) mechanism.
- The percentage of public operating funding that those states allocate based on performance/outcomes varies widely, from **0 percent** (rounded to the nearest tenth of a percentage point) **to more than 90 percent.**
- Of the 29 states that use performance/outcome-based funding, only **six** incorporate Workforce Outcomes.
- Of the 29 states that use performance/outcome-based funding, **22** use it for both two-year and four-year colleges and **seven** use it only for two-year colleges. No state uses it only for four-year colleges.



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## Public Reporting

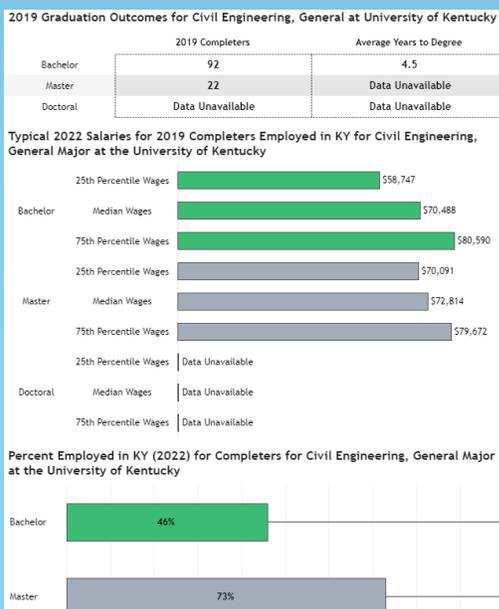
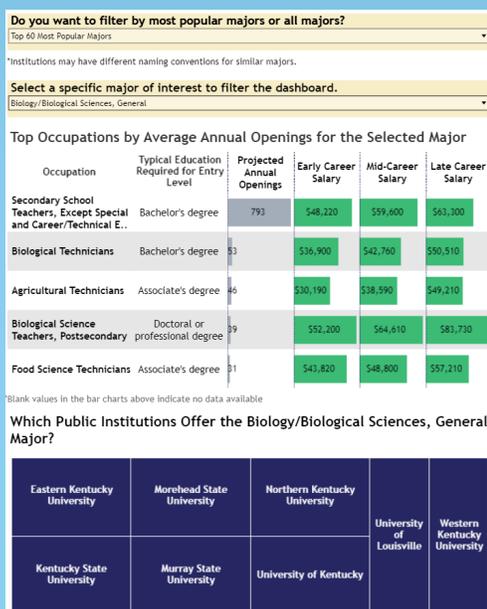
Nearly all states conduct some form of public reporting on the long-term outcomes of students who attend public institutions of higher education. We define states with public reporting in the higher education sector as those whose reports can be disaggregated or filtered by institution for at least one primary college type (e.g., two-year colleges, regional universities, or flagship universities). We did not include states whose reports include only aggregate outcomes, either for all public colleges or for each type. We did count states that linked to dashboards prepared by outside agencies, such as **Louisiana** and **South Carolina**, which directs users to the Post-Secondary Employment Outcomes (PSEO) dashboard prepared by the U.S. Census Bureau.

Of the 46 states plus D.C. that conduct public reporting in higher education, 31 present this information in the form of an interactive dashboard. The remaining 14 plus D.C. publish data downloads, factbooks, institution profiles, or written reports.

Public reporting on Workforce Outcomes most often includes measures related to job placement (including employment rates and industries where graduates are employed) and earnings. Some states offer student-facing data tools that empower them to make informed educational decisions by offering clear data on projected wages across different colleges and programs of study. Examples include **Kentucky's** [Students' Right to Know](#), **California's** [Salary Surfer](#) tool, and **Texas's** [Consumer Resource for Education and Workforce Statistics \(CREWS\)](#). **Florida** also provides

## KENTUCKY EMPOWERS STUDENTS WITH DATA

Kentucky's Students' Right to Know dashboard was created after House Bill 419 passed during the 2020 legislative session and required the Council on Postsecondary Education to annually compile and report data on in-demand jobs in the state for each public college. The dashboard links college majors to the most in-demand jobs in the state and associated early, mid-, and late career salaries. Users start by selecting a major of interest and then can see job projections, salary information, and which institutions offer the major. After selecting an institution, users can see information on financial aid, graduation rates, loan default rates, and typical salaries for graduates of that institution.



students, policymakers, and taxpayers with data on graduates' reliance on public assistance.

As in K-12, a common challenge in reporting Workforce Outcomes in higher education is data availability, which can result in workforce-related data points omitting outcomes for significant proportions of graduates. Some states struggle to secure wage-related data even for graduates who work in-state, pointing to the importance of strong partnerships between education agencies and state departments of labor (or equivalent agencies) that typically possess this data. However, the data collection challenge is even more acute for graduates who move out of state. The United States Census Bureau is attempting to fill this gap with its Postsecondary Employment Outcomes (PSEO) initiative, which reports earnings and employment data across state lines by leveraging a national database of jobs. Other states are working collaboratively with their neighbors to develop regional, cross-state dashboards. For instance, Indiana, Kentucky, Ohio, and Tennessee have teamed up to create the Multi-State Postsecondary Report Dashboard on workforce outcomes for postsecondary completers, with funding from the Coleridge Initiative and leadership from KYSTATS.

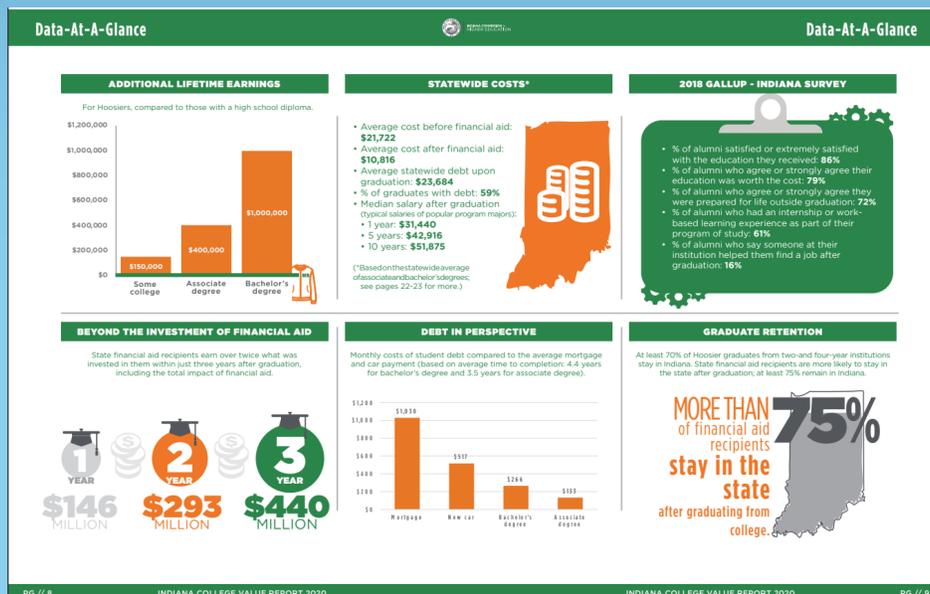
In some states, legislative mandates reinforce the importance of reporting transparency, especially for underrepresented students. **Maine** requires public colleges to produce an annual report on College Success Outcomes for first-generation students, including a comparison of graduation rates for first-generation students versus other students and an overview of strategies used to increase enrollment and improve graduation rates among such students.

Reporting on return on investment is an emerging practice, driven largely by pressure from students seeking to make smart decisions about where to enroll and from policymakers seeking to inform decisions on overall funding levels and institutional allocations.

**Colorado** publishes an annual Higher Education Return on Investment Report that provides information on tuition, time and credits to credentials, loan debt, and median earnings. The state also produces an earnings outcome dashboard that displays earnings by institution, program, degree, gender, and ethnicity. **Indiana's** College Value Report, most recently released in 2020 and 2018, includes information on costs of attendance, cost after financial aid, debt at graduation, and salary data. The report also includes alumni satisfaction survey data and compares how

## MEASURING VALUE IN INDIANA

Indiana's College Value Report includes financial metrics (such as average cost after financial aid, median salary after graduation, and average debt) as well as some non-traditional metrics such as student satisfaction with their higher education experience and graduate retention in the state.



much money financial aid recipients earn within three years of graduation to the amount of financial aid received. The University of **North Carolina** system recently released a [report](#) on return on investment with an accompanying [dashboard](#). The report and dashboard analyze return on investment from the perspective of both students and the state. The student dashboard provides details on career roles, income bands, and economic mobility, and it links these to college majors. The state dashboard assesses the impact of state higher education investment on

students' lifetime earnings. **Kentucky** also produced reports in [2020](#) and [2021](#) that looked at the return on investment for the high school classes of 2010 and 2011, respectively. The reports include data on multiple return on investment metrics for the student and the state including median opportunity cost of going to college, average return on investment over a lifetime, participation in state entitlement programs, median debt-to-income ratio, percent of the cohort at each income percentile, and average per-student return on investment for the state.

## RETURN ON INVESTMENT FOR THE STUDENT AND THE STATE IN KENTUCKY

Kentucky's 2020 Higher Education Return on Investment report demonstrates that average return on investment over a lifetime for both the student and the state. The state return on investment section considers how much the state invests in the average student via financial aid and compares that to the additional spending and tax revenue generated by a college graduate. The section also contains an overview of participation in state entitlement programs by education level.

FIGURE 19. PARTICIPATION IN STATE ENTITLEMENT PROGRAMS IN 2017, BY EDUCATION LEVEL

**Key Takeaway:** People without a college credential accounted for 86% of Medicaid recipients, 88% of SNAP recipients, and 94% of SSI (disability) recipients.

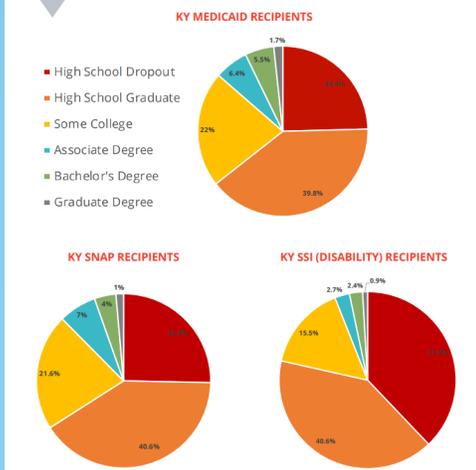


FIGURE 11. AVERAGE RETURN ON INVESTMENT OVER A LIFETIME



FIGURE 17. AVERAGE PER-STUDENT RETURN ON INVESTMENT



### NATIONAL TRENDS IN MEASURING THE VALUE OF HIGHER EDUCATION

As the cost of college education continues to rise, students and policymakers alike are increasingly concerned about the value of higher education. With mounting debt and worries about affordability, there is a growing demand for reliable metrics to assess the value of pursuing a postsecondary degree. This interest extends not only to individual students, who must weigh the financial burden of tuition against potential future earnings, but also to state governments, which allocate significant resources to higher education funding and student financial aid.

Various frameworks have emerged to measure the economic value of higher education for students, each offering unique metrics and methodologies. The *income premium* is a simple measure of value that compares the earnings of college graduates to those with only a high school diploma. The percentage of college graduates earning more than a high school graduate is included in the U.S. Department of Education's [College Scorecard](#) along with median earnings, median debt, and repayment rate.

A more robust measure is *economic return or return on investment (ROI)*, which considers both the earnings of college graduates and the cost of attending college. Most often, this measure considers whether a student has earned enough *X* years after graduation to make up the net cost of college. Some calculations make adjustments to this formula including considering the opportunity cost — i.e., lost wages — of attending college. A number of organizations including [FREOPP](#), the [Postsecondary Value Commission](#), [Strada](#), and [Third Way](#) have developed a financial return on investment measure, though what the measures are called and how they are calculated varies.<sup>29</sup>

A stronger measure of ROI is *economic mobility*, which measures whether students move to a higher income bracket as a result of postsecondary education. The Postsecondary Value Commission's economic mobility measure looks at whether students earn enough to enter the fourth (upper middle) income quintile. Similarly, Opportunity Insights's economic mobility measure considers the fraction of a college's student population whose family moves from the bottom fifth to the top fifth of the income distribution.<sup>30</sup> Third Way has developed an [Economic Mobility Index](#) that it uses to annually rate colleges. The metric considers the total net price, earnings premium, and years to pay down the total net cost as well as the number of Pell grant-eligible students served by the

institution.<sup>31</sup> The Economic Mobility Index logic considers that institutions that serve a larger share of low-income students are doing more to promote economic mobility than those that serve few low-income students.

Finally, some measures of ROI have moved beyond earnings to wealth. The Postsecondary Value Commission considers *economic security* — whether students reach median levels of wealth. Additionally, a 2019 study from the [Federal Reserve Bank of St. Louis](#) examined the college *wealth premium* — the extra net worth attained by college graduates. The study found that students born in the 1980s and 1990s were experiencing small or no wealth premium and that wealth premiums varied by race.<sup>32</sup>

Within each of these frameworks, choices on how the data is disaggregated lead to limitations in the conclusions that can be drawn and the types of value that are being measured. By disaggregating data based on race and gender, differences within degree programs and institutions become more apparent. This desire to create a more robust definition of value and improve equitable value attainment led to the establishment of the Postsecondary Value Commission's [Economic Returns Thresholds](#), which include measures of earnings and wealth parity or whether students of color, low-income students, and women meet the median earnings or wealth of their more advantaged peers.

Determining the gold standard for measuring value in higher education remains a complex challenge. While some metrics like earnings premium or economic mobility are widely acknowledged as important factors, defining a singular, comprehensive measure that accurately captures the multifaceted outcomes of higher education is difficult. Beyond the economic returns, college graduates experience societal, health, and personal growth benefits that are harder to measure. While a perfect measure might encompass all relevant aspects of value, it may be overly complex or resource-intensive to implement.

In addition to student-level value, some states are also turning their attention to the return on investment for the state. Recognizing the significant investment they make in supporting public universities and student financial aid, many states are beginning to develop their own frameworks and metrics to assess the value of higher education programs. By doing so, states aim to ensure

that taxpayer dollars are being used effectively and that students are equipped with the knowledge and skills needed to succeed in the workforce.

**Colorado** is one of the states exploring the ways it informs the public on the cost and value of pursuing postsecondary education. Since 2019, Colorado has published a return on investment report that details factors impacting the cost of education (e.g., cost of attendance, financial aid, and opportunity costs of foregone wages) and the role of individual choice (e.g., living arrangements, educational pathway choice, and career choice) in lowering the net cost of education and increasing realized return. The report informs parents, students, and policymakers on four key topic areas — cost, debt, choice, and value — and it provides recommendations to inform policymakers. The state’s [Postsecondary Degree Earnings Outcome Tools](#) dashboard reports 25th, 50th, and 75th percentile wages, by degree and program, at 1 year, 5 years, and 10 years following graduation.

Still, the Colorado government recognized the need for a more robust definition and means of measuring the value of postsecondary education. In 2022, the Colorado General Assembly passed legislation that created enabling conditions for the Colorado Commission on Higher Education (CCHE) to establish new student progression, student success, and workforce outcomes measures. To accomplish this, CCHE established a Technical Working

Group comprising state and national leaders and tasked the group with identifying a formula for a minimum value threshold. The group sought to improve upon existing definitions of the net cost of attendance (i.e., IPEDS Cost of Attendance) and more accurately capture counterfactual earnings (i.e., earnings of a similar individual who did not attend college) by removing living expenses and accounting for geographic differences. Currently, the Colorado Department of Higher Education (CDHE) is in the process of calculating each institution’s ROI, disaggregated by race and gender. An intended goal of this analysis is for institutions to identify areas in need of improvement to increase economic mobility for all Coloradans pursuing postsecondary education.

The working group has identified additional inputs (e.g., food security, mental health, Prior Learning Assessment credits) and outcome variables (e.g., in-field employment, job satisfaction, civic engagement) that they hope to incorporate in the future. However, the inclusion of these variables is dependent on the availability of data at the state level.

As the demand for clarity about the value of and ROI for higher education grows, states should be prepared to measure and report on higher education value. The efforts of national organizations and individual states such as Colorado signal a commitment to enhancing transparency and accountability in higher education.

### Accountability

The public reporting described above may influence public awareness and consumer behavior, but it does not have direct financial or operational consequences. In higher education, especially among non-profit colleges, there is no analogue for the kind of outcome-based accountability that has been common in K-12 for decades. Neither the federal government nor any state has any policy whereby low-performing IHEs lose their charter to operate, lose institutional autonomy, or are subject to wholesale “turnaround.” Rather, accountability in higher education has historically come from the U.S. Department of Education in the form of compliance reporting, loan default rates, and accreditation standards.

However, the federal government has made recent strides toward outcomes-based accountability for higher education. In September 2023, the U.S. Department of Education under the Biden

administration issued a “Gainful Employment” rule and related Financial Value Transparency framework.<sup>33</sup> The gainful employment rule provides direct punitive consequences for a subset of institutions of higher education based on two workforce-related metrics. One of these is debt-to-earnings ratio; the other is earnings premium.<sup>34</sup> If an institution fails to meet either of these metrics in a given year, it must provide students with a warning that it is at risk of losing eligibility for federal financial aid funding. If an institution fails a metric in two out of three consecutive years, it loses its eligibility to participate in federal aid programs. However, it applies *only* to for-profit colleges and non-degree programs at non-profit colleges. The Financial Value Transparency framework includes quantitative measures related to return on investment (e.g., earnings, borrowing amounts, costs of attendance). Unlike the gainful employment rule, the Financial Value Transparency framework applies to all postsecondary programs enrolling more than

30 students, including virtually all non-profit colleges and universities. It does *not* have direct funding consequences, but the U.S. Department of Education plans to create a watchlist of “low-financial-value” programs based on the framework.

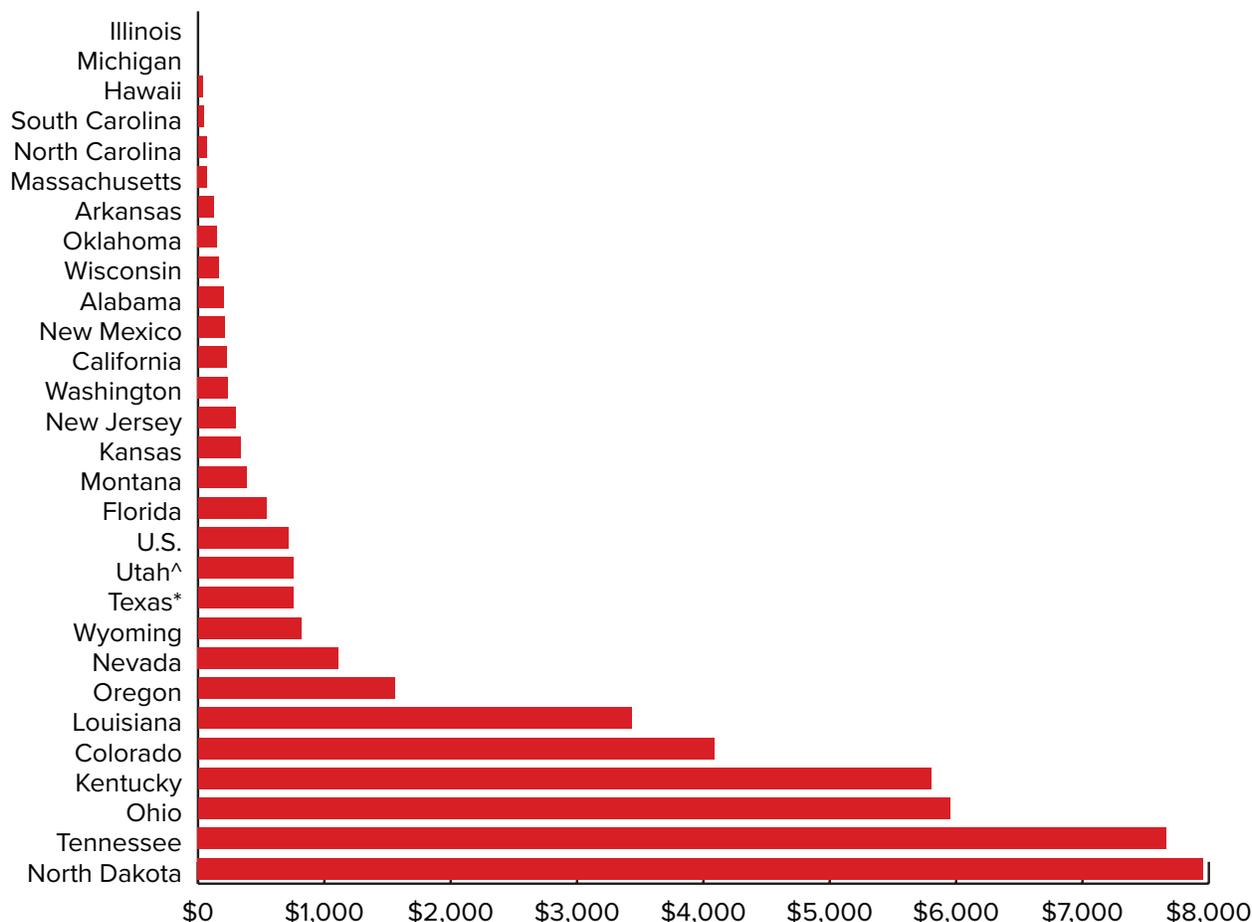
## Funding Incentives

While states do not hold institutions of higher education accountable in the same ways they do K-12 districts, they have a long history in using data-based funding incentives to drive institutional focus and behavior in higher education. Performance-based state funding systems for higher education have been in place since 1979, when Tennessee became the first to adopt one. Tennessee kicked off a national trend, such that by 2000, as many as 30 states had some form of performance-based funding (PBF). However, this “first wave” of PBF receded at the turn of the century in

the wake of poor evidence of effectiveness, technical challenges, and political pushback (often from institutions of higher education themselves). According to one researcher, 14 of 27 state PBF programs established by 2000 were terminated by 2011.<sup>35</sup>

A “second wave” of PBF — now rebranded as “outcomes-based funding” (OBF) — began in roughly 2008, just as many first-wave systems were sunsetting. OBF attempted to remedy some of the problems with PBF. In particular, OBF generally has a clearer, narrower focus on student outcomes (as opposed to inputs). It also tends to determine a higher proportion of state aid than PBF did, though there remains an extremely wide range across states (from as low as \$1 per full-time equivalent enrollee in some states to as high as \$7,956, in North Dakota).<sup>36</sup> OBF also features stronger connections to state priorities,

## PERFORMANCE BASED FUNDING ALLOCATION PER FTE, FY 2022



Data taken from the State Higher Education Finance report on [Performance-Based Funding for Higher Education](#).

^The Utah amount was adjusted based on feedback from the Utah System of Higher Education.

\*The data are from 2022, before Texas implemented a new performance-based funding formula for community colleges.

especially around equity and workforce. OBF systems contain provisions to guard against incentive-based pressure to raise admission requirements. First-wave PBF's focus on completion outcomes including credit completion and degree attainment inadvertently caused colleges to prioritize more highly qualified students for admission, thereby restricting access for historically marginalized and underserved populations. In response to this concern, OBF systems often contain metrics that specifically incentivize colleges to serve students from equity priority groups, or that generate more formula "weight" when students from these groups succeed. OBF systems may also define metrics in ways that remove disincentives to serve groups with lower average completion rates, for instance by rating performance based on *counts* of students who earn a credential, rather than the *percentage* of students who earn a credential.

By our count, 29 states currently implement some form of outcomes-based funding for public institutions of higher education. Of these, 22 states use OBF for both their two-year and four-year college systems. Within those, the measures states use to determine OBF for two-year colleges often differ from those used for four-year colleges, and the proportion of overall state funding that is determined based on outcomes can also vary. Seven states currently use OBF for two-year colleges only and no states currently use OBF for four-year colleges only.

All 29 states with OBF systems incorporate College Success Outcomes (e.g., credit completion, degree progress, and degree completion) into their measurement frameworks. Some of these give more weight to such outcomes based on equity considerations (usually race), and some give more weight to credits and degrees earned in disciplines associated with high-demand industries. Of the 29 states with OBF systems, six — California, Florida, Oregon, Tennessee, West Virginia, and Wisconsin — incorporate Workforce Outcomes (i.e., wage and employment-related metrics measured after college graduation).

- **Florida** is the only state to include Workforce Outcomes in its OBF model for four-year colleges and universities. In fact, the OBF model for the State University System of Florida includes two such outcomes: (1) Percent of Bachelor's graduates enrolled in further education or employed and earning at least \$40,000 annually

one year following graduation, and (2) Median wages of Bachelor's graduates employed full-time one year following graduation. Florida also shows how states can iterate and improve key OBF metrics over time, making 15 updates to the definition of its 10 core measures since the state's OBF model was initially approved in 2014. For instance, the first metric highlighted above began as Percent of Bachelor's graduates enrolled or employed in Florida, regardless of wage, before data improvements allowed the state to measure enrollment and employment nationwide; a \$25,000 annual earnings floor was added in 2017, increased to \$30,000 in 2023, and increased again to \$40,000 in 2024. In 2023, Florida allocated a total of \$650 million of state funding based on this OBF model.

- **California's** new outcomes-based funding model for California Community Colleges goes into full effect in 2024. The "Student Centered Funding Formula" allocates roughly 10 percent of total funding based on "student success" as determined by several metrics, one of which measures how many graduates are earning a regional living wage within one year of leaving community college. Student success metrics also include attainment of degrees and certificates, completion of transfer-level Math and English within the first academic year, completion of nine or more Career and Technical Education (CTE) units, and successful transfer to a four-year institution. Notably, and in contrast to practice in many other states, all of these metrics are measured based on student counts, rather than rates. This is an equity-oriented design feature that intentionally addresses a common criticism that rate-based systems disincentivize institutions to serve historically marginalized students whose statistical likelihood of success is below average. The model also gives extra weight to students who achieve these outcomes and are Pell grant recipients.
- In 2023, **Texas** passed House Bill 8, which instituted an outcomes-based funding model for community colleges in conjunction with a historic (roughly 25 percent) increase in state funding for community colleges. The new OBF model will award funding based on successful transfers to four-year colleges, the attainment of "credentials of value" based on labor market data, and — groundbreakingly — the number of high

school students who complete at least 15 credit hours in dual credit or dual enrollment courses. We found no other example of a state holding postsecondary institutions accountable for dual enrollment students completing a set number of credits. This provision reflects and extends Texas' commitment, at the K-12 level, to [College and Career Readiness School Models](#) that enable high school students to earn significant amounts of early college credit — and postsecondary credentials including associate degrees — prior to high school graduation. In addition to outcomes-based funding, HB8 created a new financial aid program to enable “educationally disadvantaged” students to enroll in dual credit courses at no cost to them. The model will give additional weight to students who meet these outcomes and are economically disadvantaged, academically disadvantaged, or who are adult learners (25 years of age or older).

- ⦿ Not all states that use OBF for public institutions of higher education use it for both two-year and four-year colleges, and many that do feature non-aligned OBF frameworks for each type.

**Montana's** OBF framework achieves a balance between system alignment *and* mission-based differentiation. The funding model, whose stated goal is to increase the percentage of the population with a higher education credential from 40 percent to 60 percent, encompasses the state's flagship universities, four-year regional universities, and two-year colleges. All three types share two metrics: undergraduate degrees/certificates awarded and retention rates. Students who meet these two outcomes and “under-represented” or “at-risk” are weighted more heavily at all three types. In addition to these common metrics, the OBF model includes unique metrics for each type of college based on its institutional mission. Flagship universities are funded based on graduate degrees/certificates and research expenditures. Two of the four-year regional universities are funded based on master's degrees/certificates, and the other two on dual enrollment. Two-year colleges are funded based on dual enrollment, remediation success, and credit accumulation.

# Recommendations for State Leaders

We are at a critical point in the educational and economic trajectory of the United States. States have an opportunity to learn from each other and adopt measurement and accountability policies that foster increased long-term success for students. They have the potential to do so in a way that appeals to values and targets desired outcomes on both sides of the political aisle. Improved state measurement and incentive systems should reflect a coherent

overarching vision for the entire public education system, aligning both K-12 and higher education around common goals and priorities culminating in economic mobility.

To achieve this vision, state leaders and policymakers designing next-generation measurement and accountability systems should observe the following principles of effective and equitable incentive systems:

## K-12

### Make Long-Term Success Metrics a Priority in K-12

- ① **Incorporate College and Career Readiness Metrics and Postsecondary Outcomes into public reporting and accountability.** Every state should report on both College and Career Readiness Metrics and Postsecondary Outcomes — including enrollment and persistence in postsecondary education, job placement, and wages — and incorporate them into K-12 accountability.
- ② **Incorporate College and Career Readiness Metrics and Postsecondary Outcomes into funding incentive models.** States that leverage “bonus” funding incentives should incorporate both metrics that are most predictive of postsecondary success and measures of how students fare in postsecondary into their bonus funding formulas.
- ③ **Ensure that college and career readiness indicators are rigorous.** In K-12 accountability, states that use college and career readiness composite-style indicators made up of multiple measures should ensure that they are rigorous and reflect high expectations for students. For instance, indicators that include advanced coursework should go beyond mere participation and should require students to earn college credit or industry certifications via such coursework.
- ④ **Weight College and Career Readiness Metrics and Postsecondary Outcomes substantially in accountability and funding incentive models.** States should give greater weight to long-term

student outcomes than high school graduation in accountability and funding incentive models. These metrics should make up a substantial proportion (i.e., 20 percent or more) of the calculation(s).

### Drive Fairness, Equity, and Action

- ① **Determine ratings based partly on improvement and set targets that account for incoming student characteristics.** Wherever possible, systems should encourage both current performance and improvement over time. Quantitative performance targets should take into account the incoming characteristics of students served.
- ② **Incorporate features that promote equity into all metric-based systems.** States should disaggregate data across student characteristics and include explicit equity provisions in public reporting, accountability, and funding incentive systems. These provisions can include technical aspects of metric definition and additional weight for priority groups when determining ratings or funding. Equity priority groups should be defined not only demographically (e.g., low-income students), but also geographically (e.g., rural students).
- ③ **Incentive funding should leverage new money in the K-12 system.** New incentive systems should be linked, wherever possible, to significant “new” money and should focus primarily on students’ long-term outcomes.

### Improve Systems Over Time

- ⦿ **Acknowledge and address data limitations.** States should acknowledge and account for data collection limitations in the technical design of their measurement and incentive systems, but data limitations should not preclude the inclusion of important metrics. States should also invest in systems that enable them to collect more and more accurate data over time, especially data related to Postsecondary Outcomes (including workforce outcomes).

- ⦿ **Enable and expect measurement systems to evolve.** Metrics and measurement policies and systems should have a chance to evolve and improve over time; states should include structured and scheduled opportunities for refinement, with an eye toward including student outcomes beyond high school graduation in greater proportions over time.

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## HIGHER EDUCATION

### Make Long-Term Success Metrics a Priority in Higher Education

- ⦿ **Measure and publicly report on postsecondary education value.** There are many approaches to measuring the economic “value” of postsecondary education, and every state should adopt an approach aligned to its goals and available data. Measures of value should include economic mobility or whether students are able to “move up” the economic ladder. In addition to economic value, states should also consider other measures of postsecondary value for the student and the community. Results should be publicly reported at the state level, by institutional type, and by institution.
- ⦿ **Incorporate College Success Outcomes and Workforce Outcomes into public reporting.** Every state should incorporate both College Success Outcomes and Workforce Outcomes into public reporting for each public institution of higher education.
- ⦿ **Weight College Success Outcomes associated with high-wage, high-growth, and/or high-demand industries more heavily.** In formulas used to determine performance-based funding for public institutions of higher education, College Success Outcomes (e.g., degrees) associated with high-wage, high-growth, and/or high-demand industries should be weighted more heavily than those that are not.

### Drive Fairness, Equity, and Action

- ⦿ **Align and appropriately differentiate accountability and performance metrics across different types of public postsecondary institutions.** Performance-based funding formulas for all types of public colleges (e.g., community colleges, regional universities, and flagship universities) should reflect a common set of metrics including degree attainment and Workforce Outcomes. Beyond this common set, each type should have performance metrics tailored to institutional mission — for instance, community colleges might have a metric based on successful transfer to four-year colleges, while flagship universities might have a metric based on research produced.
- ⦿ **Determine ratings based partly on improvement and set targets that account for incoming student characteristics.** Wherever possible, systems should encourage both current performance and improvement over time. Quantitative performance targets should take into account the incoming characteristics of students served.
- ⦿ **Incorporate features that promote equity into all metric-based systems.** States should disaggregate data across student characteristics and include explicit equity provisions in public reporting, accountability, and funding incentive systems. These provisions can include technical aspects of metric definition and additional weight for priority groups when determining ratings or

funding. Equity priority groups should be defined not only demographically (e.g., low-income students), but also geographically (e.g., rural students).

- ① **Link funding incentives to overall funding levels, and make funding incentives a significant share of overall funding.** New incentive systems should be linked, wherever possible, to significant “new” money. Where states employ funding incentives based on outcomes, they should determine a substantial proportion (i.e., 20 percent or more) of overall funding.

### Improve Systems Over Time

- ① **Acknowledge and address data limitations.** States should acknowledge and account for data collection limitations in the technical design of their measurement and incentive systems, but data limitations should not preclude the inclusion of important metrics. States should also invest in systems that enable them to collect more and more accurate data over time, especially data related to Workforce Outcomes.
- ① **Enable and expect measurement systems to evolve.** Metrics and measurement policies and systems should have a chance to evolve and improve over time; states should include structured and scheduled opportunities for technical refinement.

# Conclusion

Measurement and accountability in K-12 and higher education is not simply a technical challenge — ultimately, these systems reflect political choices about what policymakers, stakeholders, and the general public want their education systems to deliver. Implementing a new measurement or accountability system is just the first step in creating lasting positive change. As a 2015 Lumina Foundation paper put it, “Once a model is chosen, leaders must face the difficult task of maintaining political support for it against advocates of older (or newer) approaches.”<sup>37</sup> History proves that this is easier said than done. That said, policymakers and advocates should seek to cultivate diverse guiding coalitions to shepherd the design and support the sustainability of next-generation measurement and accountability systems. These coalitions should *always* include inside-the-system actors from the very institutions that will be subject to new policies. They should include employers and other representatives of industry. They should include advocates of excellence, equity, and efficiency from both sides of the political aisle.

If it's true that what's measured gets valued, it's even more essential that we measure what we care about most. If we truly value economic prosperity

and mobility, then our reporting, accountability, and incentive systems for education must evolve to reflect that. Making this shift means we must accept the challenges that come with publicly setting new values and reframing investment priorities accordingly. The road ahead may be difficult, but the destination of postsecondary success for all is known, worthwhile, and attainable. Through innovation and investment in

**If we truly value economic prosperity and mobility, then our reporting, accountability, and incentive systems for education must evolve to reflect that.**

reporting, accountability, and incentive funding, states can revitalize the country's educational engine and drive America toward a prosperous future in which opportunity is universal and economic mobility remains the rule, rather than the exception.

# Appendix A: Methodology

## K-12

The K-12 measures considered in this report include:

✓ **College and Career Readiness Metrics** encompass a range of measures captured during a student's high school experience and are thought to influence and predict students' later success in postsecondary education, the workforce, and the military. These include but are not limited to participation and success in early postsecondary opportunities (e.g., Advanced Placement, International Baccalaureate, and dual credit/enrollment) and high-quality CTE pathways, participation in work-based learning experiences, and attainment of industry-based credentials and certificates during high school. They may also include college access measures like college application and/or acceptance rates, college match rates, and FAFSA and/or scholarship completion rates. Some states incorporate many such measures into a composite college and career readiness indicator.

🏛️ **Postsecondary Outcomes** are captured after students graduate from high school. They demonstrate students' progress and success in postsecondary education and the workforce. These include measures of postsecondary education enrollment (including two-year colleges, four-year colleges, and short-term certificate or training programs), persistence, and credential attainment. They may also include measures related to military enlistment, employment, and earnings.

### Public Reporting

In order to be counted, the state had to disaggregate the metrics by school or district. Reports that only displayed statewide aggregates were not counted.

For **College and Career Readiness Metrics**, states that only reported assessment data for college and career readiness were not counted; the state had to also report on participation and success in advanced coursework, CTE pathways participation and completion, work-based learning participation, industry credential attainment, associate degree completion in high school, college application and/or acceptance rates, college match rates, and/or FAFSA completion.

College and career readiness indicators that provide students with a menu of options that may include ACT/SAT or state assessment results as one way of demonstrating readiness along with another option described above were counted (i.e., a state where students can be college and career ready by earning a 21 on the ACT *or* earning college credit *or* completing an industry credential would be counted).

For **Postsecondary Outcomes**, Perkins V reporting requires states to report on postsecondary outcomes; however, because this is required of all states and only for CTE Concentrators, it was not counted in our analysis.

### Accountability

In order to be counted, the metrics had to be included as an SQSS measure in a state's ESSA plan or in a state accountability system that includes interventions or additional support. In some states, the state accountability system was only for public reporting and was not used to identify schools for intervention or support — these states were not counted. To be counted, the measure needed to be in current use; while a few states have identified college and career readiness or postsecondary outcomes measures to be used in their accountability systems, if they were not yet operationalized by early 2024, they were not included. Additionally, the measure needed to apply to all students in the state, not one student group; some states, for example, have accountability measures on Postsecondary Outcomes but only for students with disabilities.

### Incentive Funding

Incentive funding bonuses needed to be directed at schools or districts. Some states do provide direct-to-student or direct-to-teacher incentives, but those were not counted. Additionally, many states provide grants to schools and districts to expand access to advanced coursework, CTE programs, work-based learning, industry-recognized credentials, or associate degrees. As this report is focused on student outcomes, grants provided to encourage the creation or expansion of college and career readiness programs were not included in our count.

### Other Mechanisms

The following graduation requirements, endorsements, seals, and designations were counted:

- Endorsements, seals, designations: Students elect to pursue these options; they are optional to graduate from high school. States have created a structure for students to signal readiness for career and/or college goals. These may take the form of diploma endorsements, seals, or other types of designations. These may be managed by schools, LEAs, or states and are not always publicly reported (but should be).
- Graduation requirements or graduation requirement menus are a requirement states include for students in order to graduate. Most commonly, these include a variety of ways for students to demonstrate readiness (e.g., through meeting assessment benchmarks, coursework, earning certificates, senior projects, apprenticeships) and may be managed locally by districts. Graduation requirement menus vary in quality and rigor.
- College and Career Readiness coursework/ graduation requirements: Some states require students to take particular coursework they denote as college and career readiness; for example, a career preparedness or workforce readiness course, an EPSO course, or a CTE credential.

The requirement that students complete a personalized learning plan was not considered to meet the threshold. A requirement of CTE or “career” credits alone did not meet the bar for our analysis. While biliteracy is a valuable skill in today’s workforce, Seals of Biliteracy on the high school diploma were not included as Other Mechanisms. Finally, a handful of states align their high school graduation requirements to the public college entry requirements in the state; while a good practice, these states were not included in our calculation.

Other Mechanisms also included publicly displayed (on school report cards) seals, awards, or special recognition for schools or districts that had higher-than-average College and Career Readiness or Postsecondary Outcomes for students.

### State-Specific Notes

- California includes a State Seal of Biliteracy as a component of its college and career indicator and as a special designation on diplomas.
- Multiple states — such as Connecticut, Iowa, and Michigan — offer funding incentives to expand early college coursework and/or CTE programs.
- While New Mexico does not provide a separate college and career readiness designation for schools and districts, the state’s NM Vista designations are determined by a composite score that includes college and career readiness.
- Nebraska includes ACT information on the school report cards but does not include other College and Career Readiness Metrics. The state’s Accountability for a Quality Education System, Today and Tomorrow (AQuESTT) does include a Postsecondary, Career, and Civic Readiness indicator; however, the indicator is still in development and was not counted at this time. The state does include college-going rate on the school report card, which did meet our definition of a Postsecondary Outcome for public reporting.
- North Carolina is in the developmental phase for inclusion of Postsecondary Outcomes in a revised accountability model and/or public reporting. The state does not provide direct to district or school funding incentives, but they do give teacher bonuses for AP results and for CTE credentials.
- Ohio has a College, Career, Workforce, and Military Readiness component that is not yet rated for traditional schools and districts but it will begin to be rated and become part of the state and federal accountability plan in the 2024-2025 school year. Additionally, Ohio noted that they have state accountability measures in College and Career Readiness as well as Postsecondary Outcomes for the Career Technical Planning Districts; however, that is not inclusive of all districts in the state. They also have a federal accountability Postsecondary Outcomes indicator for students with disabilities that considers the percentage of children with disabilities who, within one year of leaving high school, are enrolled in higher education, participating in a training program, or competitively employed.
- Rhode Island does include postsecondary enrollment on its school report card, though the measure is not factored into a school’s accountability rating.

# HIGHER EDUCATION

The higher education measures considered in this report include:

 **College Success Outcomes** are indicators of students' progress and attainment in postsecondary education. They include gateway course completion, credit accumulation, persistence, transfers to four-year colleges, degrees and credentials awarded, and graduation rates. Some states include related measures like time to degree and student debt.

 **Workforce Outcomes** measure how students fare once they leave the postsecondary education system. They include employment and job placement rates, fields of employment, earnings, and return on investment in postsecondary education.

## Public Reporting

In order to be counted, the state had to publicly report outcomes (via dashboards, reports, or data downloads) at the institution-level for at least one higher education system in the state (e.g., two-year colleges, regional universities, or flagship universities). States whose reports include only aggregate outcomes, either for all public colleges or for each institution type, were not included. States whose websites linked to dashboards prepared by outside agencies that provided information on outcomes by institution (such as PSEO) were counted. At least one state utilized survey results for workforce outcomes; though less reliable than utilizing unemployment insurance or other P-20 data, survey data on workforce outcomes was still counted so long as it was disaggregated by institution.

## Incentive Funding

In order to be counted, states needed to use a performance-based or outcome-based funding formula to determine some amount of state funding allocated to individual public two-year colleges, four-year universities, or both. These formulas had to be in active use (not dormant, discontinued, solely “on the books,” or scheduled for future implementation), and they had to include one or more College Success Outcome or Workforce Outcome. Systems that only determined higher education funding allocations for the state overall, rather than for individual institutions of higher education, were not included.

## State-Specific Notes

- ⦿ Alabama does produce Workforce Development Completion Reports that show the number of degrees awarded by institution and major. Additionally, the state produces an Employment Outcomes Report that shows statewide averages of graduate earnings by major and degree level and employment rates after five years by major.
- ⦿ Illinois is part of the Postsecondary Employment Outcomes with the Census Bureau, and the state's data should be released in summer 2024.
- ⦿ Kansas's current performance-based funding system, which includes College Success Outcomes, is awarding funding in July of 2024. For July 2025-2027, Kansas will implement a new unique performance-based funding system that will not fund student outcomes, but rather proven practices to improve student outcomes over time including corequisite support for gateway courses and updated degree maps. After the 2026-2027 academic year, the state expects performance-based funding to return to utilizing student College Success Outcomes directly and possibly Workforce Outcomes as well.
- ⦿ Nebraska is developing the Nebraska Statewide Workforce & Educational Reporting System (NSWERS), a lifelong learning and workforce longitudinal data system.
- ⦿ Nevada's performance-based funding system includes an economic development metric, which is the number of degrees awarded in a major aligned to the state's economic development plan.
- ⦿ Oklahoma is working on a dashboard that will include workforce outcomes of college graduates and hopes to launch it by the end of 2024.
- ⦿ Oregon's performance-based funding for two-year institutions will begin in July 2024.
- ⦿ Rhode Island has some longitudinal dashboards and data stories with Workforce Outcomes for specific programs, such as healthcare.
- ⦿ South Carolina has robust workforce outcomes reporting. Recent legislation will elevate these data, and there are current conversations about how the state should leverage the results for funding.

- ⦿ Texas's performance-based funding formula includes funding for students earning credentials of value in high-demand fields. Additionally, the state measures credentials of value using projected return on investment of the credential. The measure considers whether the credential will have a positive return on investment within 10 years, such that cumulative earnings will exceed the student's initial investments.

# Appendix B: Outcomes Identified in National Scan

The table below summarizes how each state is leveraging public reporting, accountability, funding incentives, and other mechanisms in the public K-12 and higher education sectors to encourage prioritization of students' long-term outcomes.

## K-12 Metrics

 **College and Career Readiness Metrics** are captured during a student's K-12 experience; they influence and predict students' success in life after high school. Measures include the state's college and career readiness indicator, advanced coursework participation and success, high-quality CTE pathway participation and success, work-based learning, assessments, and credential attainment in high school.

 **Postsecondary Outcomes** are captured after students leave the K-12 system; they are linked to where students attended high school and directly measure students' progress and success in postsecondary education, military, and the workforce. Measures include postsecondary enrollment and persistence, degree attainment, job placement and employment rates, wages, and military enlistment.

## Higher Education Metrics

 **College Success Outcomes** track students' progress and attainment in postsecondary education. They include gateway course completion, credit accumulation, persistence, transfers to four-year colleges, degrees and credentials awarded, and graduation rates. Some states include related measures like time to degree and student debt.

 **Workforce Outcomes** measure students' economic success after leaving postsecondary education. They include employment and job placement rates, fields of employment, earnings, and return on investment in postsecondary education.

State	K-12				HIGHER EDUCATION	
	Public Reporting	Accountability	Funding Incentives	Other Mechanisms	Public Reporting	Funding Incentives
Alabama	 					
Alaska						
Arizona	 	 			 	
Arkansas	 					
California	 				 	 
Colorado	 	 			 	
Connecticut	 	 				
Delaware						
D.C.	 					
Florida	 				 	 
Georgia	 	 			 	
Hawaii	 	 			 	
Idaho	 				 	

## Appendix B: Outcomes Identified in National Scan

State	K-12				HIGHER EDUCATION	
	Public Reporting	Accountability	Funding Incentives	Other Mechanisms	Public Reporting	Funding Incentives
Illinois	✓	✓		✓		
Indiana	✓		✓	✓		
Iowa	✓	✓				
Kansas	✓	✓		✓		
Kentucky	✓	✓				
Louisiana	✓	✓		✓		
Maine	✓					
Maryland	✓	✓				
Massachusetts	✓	✓				
Michigan	✓	✓				
Minnesota	✓					
Mississippi	✓	✓		✓		
Missouri	✓	✓				
Montana	✓	✓				
Nebraska						
Nevada	✓	✓		✓		
New Hampshire	✓	✓				
New Jersey	✓					
New Mexico	✓	✓		✓		
New York	✓	✓		✓		
North Carolina	✓	✓		✓		
North Dakota	✓	✓		✓		
Ohio	✓		✓	✓		
Oklahoma	✓	✓		✓		
Oregon				✓		
Pennsylvania	✓	✓				
Rhode Island	✓	✓		✓		
South Carolina	✓	✓				
South Dakota	✓	✓		✓		
Tennessee	✓	✓	✓			
Texas	✓	✓	✓	✓		

## Appendix B: Outcomes Identified in National Scan

State	K-12				HIGHER EDUCATION	
	Public Reporting	Accountability	Funding Incentives	Other Mechanisms	Public Reporting	Funding Incentives
Utah	✓ 	✓			 	
Vermont	✓ 	✓ 				
Virginia	✓ 	✓		✓	 	
Washington	✓ 	✓		✓	 	
West Virginia	✓ 	✓		✓	 	 
Wisconsin	✓ 		✓		 	 
Wyoming	✓	✓			 	

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# ACKNOWLEDGMENTS

## About ASA

American Student Assistance® (ASA) is changing the way kids learn about careers (in school and beyond the classroom) and prepare for their futures through equitable access to career readiness information and experiences. We help middle and high school students to know themselves — their strengths and their interests — and understand their education and career options so that they can make informed decisions. ASA is fostering a generation of confident, crisis proof young people who are ready for whatever path comes next after high school. ASA fulfills its mission by providing free digital-first experiences, including Futurescape® and Next Voice™, and EvolveMe™, directly to millions of students, and through impact investing and philanthropic support for educators, intermediaries, and others. To learn more about ASA, visit [www.asa.org/about-asa](http://www.asa.org/about-asa).

## About Education Strategy Group

In today's economy, success largely depends on attainment of a credential beyond high school. Education Strategy Group (ESG) supports the preparation, entry, and success of individuals from K-12 through postsecondary education and into the workforce to build a more equitable system, open economic doors for all, and strengthen our democracy. We work with America's education leaders and employers to design, scale, and implement strategies that improve attainment. ESG specializes in strengthening the transition points that have the highest stakes for youth and adults and the highest benefit for states, communities, and economies. We are driven by the conviction that a robust education system aligned with workforce demands leads to a stronger, more equitable society. Learn more about ESG's work at [www.edstrategy.org](http://www.edstrategy.org).

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