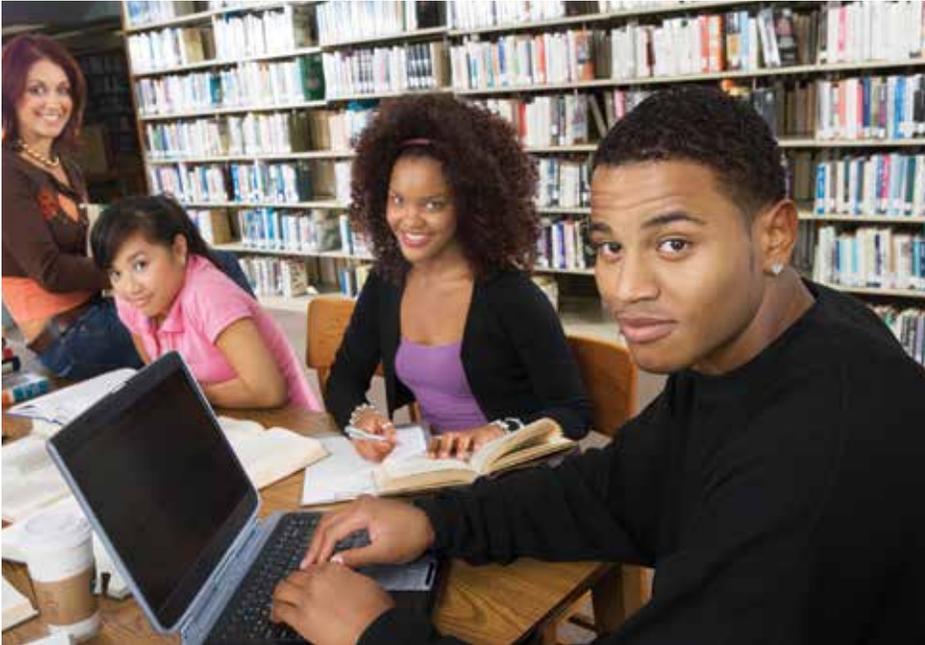


**CHAPTER 3:**

# Performance Metrics



This chapter describes the following set of performance metrics:

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## ACCESS

Enrollment	
Definition	Twelve-month headcount that includes all undergraduate students who enroll at any point during the calendar year
Population	Twelve-month unduplicated undergraduate headcount by credential level and student enrollment status and attendance intensity
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Recruitment of underrepresented populations</li> <li>• Application start and completion among underrepresented populations</li> <li>• Financial aid application completion by underrepresented populations</li> <li>• Financial aid gap for underrepresented populations</li> <li>• Acceptance rates for underrepresented populations</li> <li>• Yield for underrepresented populations</li> <li>• Enrollment in Science, Technology, Engineering, and Math (STEM) fields by underrepresented populations</li> <li>• Date of application or enrollment relative to term start date</li> <li>• Dual or summer enrollment before first term</li> <li>• Co-enrollment in another institution</li> </ul>

20

initiatives measure Enrollment

### Field Usage and Convergence

All of the reviewed initiatives consistently collect an enrollment metric, though most collect only fall enrollment because much of the Integrated Postsecondary Education Data System's (IPEDS) reporting is based on fall counts. Not only are IPEDS' fall enrollments disaggregated more thoroughly than IPEDS' 12-month enrollments, but retention and graduation rates for most institutions also are based on fall cohorts. While fall enrollments include only students who follow the traditional academic schedule, 12-month enrollments include every student, regardless of whether they first enroll in the fall, spring, or summer. This broader enrollment definition, used by Complete College America (CCA) and Predictive Analytics Reporting (PAR) Framework, increases total enrollment counts by about 25 percent and includes more nontraditional students whose enrollment and attendance patterns fall outside of past norms.

As such, the framework recommends the use of 12-month counts—both to measure enrollment trends *and* to define cohorts for other metrics, such as outcome rates, a change supported by many higher education policy organizations (for more detail, see the Postsecondary Data Collaborative comments on IPEDS Outcome Measures (OM) and their response to Sen. Lamar Alexander [R-TN]).<sup>1</sup> This framework recommends creating 12-month enrollment cohorts based on enrollment status, attendance intensity, and credential level,

and disaggregating the data by academic preparation, economic status, race/ethnicity, gender, age, first-generation status, and program of study. IPEDS currently includes some of these details (e.g., enrollment status, attendance intensity) in the fall enrollment survey but includes only race/ethnicity and gender in the 12-month survey. Fully disaggregating full-year enrollments will provide a more comprehensive view of access trends, especially for key demographics, including underprepared, low-income, and underrepresented minority populations.

### Use Cases

By expanding the metric to include entrants throughout the year, institutions would include almost one in four more students, largely from the community college and for-profit sectors.<sup>2</sup> Enrollment is a foundational metric for this framework because 12-month enrollment also defines the cohort population used in many of the other metrics, such as outcome rates. It also provides a baseline of information about college

access, allowing institutions to measure their effectiveness at enrolling diverse student populations, to evaluate access over time,

and to assess their campus diversity against their service area's demographics. Policymakers use enrollment data to determine how effective institutions are at enrolling diverse student populations and can design policies to advance that agenda. Students and families use these data—such as whether there are students like them enrolled there—to help determine fit at an institution.

## PROGRESSION

Credit Accumulation	
Definition	The percentage of students earning sufficient credits toward on-time completion in their first year: 30 credits for full-time and 15-credits for part-time students. Prior credits from Advanced Placement (AP), International Baccalaureate (IB), dual enrollment, and transfer are not counted, nor are noncredit remedial courses. Credit is earned based on institutional standards
Population	Twelve-month cohorts by credential level and student enrollment status and attendance intensity (e.g., first-time full-time [FTFT], transfer full-time [TFT], first-time part-time [FTPT], transfer part-time [TPT])
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"><li>• Remedial course enrollment and completion (if applicable)</li><li>• Average credit load per term or year</li><li>• Summer or intersession credits earned</li><li>• Enrolled at least half time (for part-time students)</li><li>• Continuous enrollment</li></ul>

9

initiatives measure Credit Accumulation

### Field Usage and Convergence

Drawing on research that demonstrates early credit accumulation as a key leading indicator of degree completion,<sup>3</sup> Achieving the Dream (ATD), CCA, the Voluntary Framework of Accountability (VFA), and six other initiatives<sup>4</sup> established the widespread use of this metric with hundreds of colleges in nearly all 50 states across the country. Following the most expansive collection of this metric in the field, the recommended 30- and 15-credit thresholds align with CCA's reporting requirements, which were recently revised to further encourage on-time completion for full-time students while recognizing that part-time students also need a reasonable, yet timely, pathway to success.<sup>5</sup> Although some initiatives suggest including all credits in this calculation, the framework excludes remedial courses here, per CCA and other organizations, because those credits do not count toward a credential. Also, a coalition of six organizations recently encouraged the adoption of corequisite remediation and other new models that support students to actively accrue credits toward their credentials—despite needing developmental education—adding further reason to not count separate developmental credits toward this progression metric.<sup>6</sup>

Building on the field's work, the framework also recommends the addition of key disaggregates. As such, this framework's proposed metric builds on CCA's specifications by expanding to a 12-month cohort that incorporates nonfall entrants, adding cohorts for transfer students, and separating cohorts based on the level of credential sought. Reporting lag times are expected because spring entrants should receive a full year to accumulate credits. These changes align this progression metric with the enrollment and completion metrics in the framework and provide more detail about how specific

students are progressing to more fully inform institutional improvement efforts. (For an in-depth explanation of considerations around cohort determination, please see Chapter 2).

### Use Cases

This metric is designed to help institutions and policymakers measure the extent to which students are progressing toward completion, and the disaggregates clarify *which* students are (and are not) gaining academic momentum early in order to determine what can be done to help more of these students succeed. Disaggregation is especially important for this metric because it better articulates the degree pathways for full-time or part-time and first-time or transfer students. While any given student may have specific reasons for taking more or less credits (e.g., program of study, personal finances), the average number of credits accumulated by entering students in the first year serves as an important institution-wide indicator of student progress.

It is also important to disaggregate by credential level, as students in various programs (certificate-seeking, associate's-seeking, and bachelor's-seeking) may tend toward different problems and solutions relative to academic progress. The field shows that academic preparation is among the most important disaggregates for this metric, because remedial requirements can slow student progress toward credit milestones and eventual completion and largely do not count toward a credential. Economic status is also an essential disaggregate because students must be able to afford and enroll in courses to earn credit. Further, active intervention by institutions can positively affect students' level of preparation and financial situations.

In order to support an institution's ability to understand student momentum and progression, the framework highlights additional submetrics, like average credit load and credit completion ratio, as a way for colleges and universities to drill down into these metrics and develop strategies to address stalled students. The remedial enrollment and completion submetrics could be useful for institutions, as these submetrics highlight which students are affected and need additional support. Credit accumulation indicators have been incorporated into early warning systems and advising technology, like Civitas and Starfish, to make the data useful for students and advisors. Policymakers also have incorporated credit-based momentum measures into many outcome-based funding models to shape state funding.<sup>7</sup>

## PROGRESSION, continued

### Credit Completion Ratio

Definition	The number of credits completed, divided by the number of credits attempted by first-year students. Prior credits from AP, IB, dual enrollment, and transfer are not counted. Credit is earned based on institutional standards.
Population	Twelve-month incoming cohorts by credential level and student enrollment status and attendance intensity (e.g., FTFT, FTPT, TFT, TPT)
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"><li>• Percentages of remedial courses among uncompleted credits</li><li>• Percentage of D's, F's, W's, I's among uncompleted credits</li><li>• Percentage of uncompleted credits that were retakes</li><li>• Percentage of D's, F's, W's, I's in high-enrollment courses</li><li>• Grade point average by term and year</li><li>• Course engagement/interaction by course completion</li><li>• Course format/modality by course completion</li></ul>

4

initiatives measure Credit Completion Ratio

#### Field Usage and Convergence

CCA, the Consortium for Student Retention Data Exchange (CSRDE), the PAR Framework, and the VFA all use credit completion ratios to measure student momentum toward a credential. This framework follows a combination of VFA's, CSRDE's, and CCA's definitions. For example, the metric includes remedial courses in the calculation even if they do not count toward degree requirements, which is consistent with VFA and CSRDE standards. Including, rather than omitting, these remedial courses provides a more complete analysis of academic momentum remedial courses; however, this framework's proposed metric follows CCA guidelines for credit completion by counting D's only if the institution accepts the grade as passing, while VFA and PAR Framework, on the other hand, exclude D's in all cases. CCA's guideline for treatment of D's is more customized to individual institution's circumstances.

The population and disaggregates counted in this metric match those of the framework's proposed completion metrics to maintain consistency across the framework and with the field convergence around the four major cohorts. As a result, the primary differences between the framework's definition and CCA's are that this framework disaggregates by credential level instead of institution type, is based on full-year cohorts instead of fall only, and disaggregates transfer students by full- and part-time status. However, full- and part-time students could be aggregated when interpreting the metric, without confounding results. Because the metric includes all students enrolled throughout the year, reporting lag times are expected, as spring entrants should receive a full year to complete credits.

#### Use Cases

The credit completion ratio improves institutional understanding of credit accumulation and student academic momentum in the first year by focusing in on courses passed versus courses attempted. Research shows that higher credit accumulation ratios in the first year are correlated with ultimate credential completion, so the measure can be a useful tool to discover students' academic setbacks and allow for early interventions.<sup>8</sup> The academic preparation and economic status disaggregates are most important when determining the underlying causes holding students back from completing their enrolled courses. Moreover, the submetrics suggested, in addition to the ratio, help further mine the data for populations that may require additional assistance and for gaps in course-taking and completion patterns, which can be improved by institutional intervention through early warning and other advising systems. For policymakers, both the credit completion and accumulation metrics

are primary tools to show academic progression and help design and shape policy and funding decisions, and are incorporated in some Outcomes Based Funding (OBF) formulas.<sup>9</sup>

## PROGRESSION, continued

Gateway Course Completion	
Definition	The percentage of students completing college-level, introductory math and English courses tracked separately in their first year. Prior credits from AP, IB, dual enrollment, transfer, and College Level Examination Program (CLEP) do count. Credit is earned based on institutional standards.
Population	Twelve-month incoming cohorts by credential level and student enrollment status and attendance intensity (e.g., FTFT, FTPT, TFT, TPT)
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"><li>• Enrollment in prerequisite remedial courses by subject (if applicable)</li><li>• Completion of prerequisite remedial courses by subject (if applicable)</li><li>• Enrollment in gateway courses by subject</li><li>• Number of attempts to complete gateway courses by subject</li><li>• Average time to complete gateway courses by subject</li><li>• Completion of both gateway courses</li><li>• Availability of remedial and gateway courses in sequence</li><li>• Percentages of D's, F's, W's, I's in gateway courses by subject</li><li>• Course engagement/interaction by gateway course completion</li><li>• Course format/modality by gateway course completion</li></ul>

8

initiatives measure Gateway Course Completion

### Use Cases

Gateway course completion in the first year is a key momentum point that predicts student success, and the proportion of students meeting this momentum point indicates to an institution whether students began their college careers on the right track.<sup>11</sup> In one respect, it is the best measure of true college readiness. For this reason, policymakers too must be keenly aware of and aim to use this and other completion measures when they are designing and shaping programming, policy, and funding. Performance on this metric also can inform institutional efforts to help students build academic momentum early through counseling and technology-enabled advisory systems.

Academic preparation is the most critical correlate of gateway course completion, and institution leaders can use this disaggregate to evaluate whether preparation or another factor is the primary roadblock to on-time gateway completion. Also, age and economic status are important disaggregates when analyzing these data. Age may demonstrate adverse effects related to delayed entry, and economic status may show the extent to which lack of funds can delay timely course enrollment

and completion. The recommended submetrics can further assist insti-

### Field Usage and Convergence

Eight voluntary initiatives<sup>10</sup> use gateway course completion metrics, though the intricacies of the metric vary by initiative. Because no national standards exist for classifying gateway courses, individual institutions should define which courses count as “gateways,” broadly defined as nonremedial entry-level or introductory courses in the subject area.

Similar to the credit completion ratio, the passing grade recommendation follows CCA definitions, which includes A, B, C, and P grades, in addition to D's if recognized by the institution. The field varies in the time frame used for this metric. CCA and VFA measure the percentage of students completing gateway courses after one and two years and just two years, respectively, while Completion by Design (CBD) measures completion after only one year. Because early gateway course completion is essential to on-time progression, this framework recommends following CBD's guidelines to signal to the field that one year is an important time frame for institutions to target for getting students through these courses.

tutions, as institutions then can understand how remedial course-taking, course sequence availability, and time and number of attempts to completion can affect this metric and, ultimately, student completion.

## PROGRESSION, continued

Program of Study Selection	
Definition	The percentage of students in a cohort who demonstrate a program of study selection by taking nine credits (or three courses) in a meta-major in the first year. Meta-majors include: education; arts and humanities; social and behavioral sciences and human services; science, technology, engineering, and math; business and communication; health; trades <sup>12</sup>
Population	Twelve-month incoming cohorts by credential level and student enrollment and attendance intensity (e.g., FTFT, FTPT, TFT, TPT)
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"><li>• Percentage of students undeclared at entry</li><li>• Number of major changes</li><li>• Likelihood of meeting requirements for entry to intended major</li><li>• Availability of intended major (e.g., wait lists)</li><li>• Availability of detailed degree maps for intended major</li><li>• Availability of prerequisite courses in sequence for intended major</li></ul>

2

initiatives measure Program of Study Selection

### Field Usage and Convergence

Research by the Community College Research Center (CCRC) shows that community college students who do not enter a program of study within their first year are much less likely to persist and achieve a successful outcome. However, CCRC also finds that using students' declared major or program of study is not as useful as using students' course-taking behavior in identifying whether they have successfully entered a program of study. As a result of these findings, CCRC recommends the methodology employed by CBD, in which students must complete nine credit hours or three courses in a program of study to count as "concentrators" in a major field.<sup>13</sup> The framework supports this practice by measuring whether students select a program of study within the first year of enrollment, regardless of credential level. This recommendation diverges slightly from CCA's practice of measuring major selection at entry for all students; however, this framework recommends measuring major selection at the end of the first year to allow institutions to use the CBD methodology.

The framework leans on CCA's classification of meta-majors (see list above) because when students enroll early in one of these categories, they are able to get on a "guided pathway to success."<sup>14</sup> The meta-majors offer a level of specificity without limiting future adjustments to students' more refined major selections. CCA has mapped two-digit Classification of Instructional Programs (CIP) codes to the seven meta-majors to allow for easy classification and more in-depth analysis.

### Use Cases

Concentration in a program of study is an early indicator of student progression through higher education, offering more information about how and why some students falter. If an institution finds that large proportions of their students are not concentrating in a major early in their collegiate careers, then the institution can adjust advising, course registration, and scheduling practices to encourage students to concentrate earlier and build momentum toward their degrees. While not specifically geared toward students for consumer purposes, program of study selection is another progression metric that can enhance academic advising and course selection.

The submetrics are designed to highlight the likelihood of a student progressing as well as factors that could contribute to slower progression. Specifically, if students change majors frequently, an institution may need to provide more intensive advising and earlier information

about major tracks and associated career opportunities. Similarly, if students do not accumulate the credits or GPAs necessary to enter specific majors, the institution can revisit its policies and communication strategies for alerting students to the steps they need to take to prepare for their major of interest. Detailed degree maps by major are another resource for ensuring that students are on a pathway to postsecondary success, as demonstrated through research by CCA, CCRC, and the Education Trust on guided pathways, Integrated Planning and Advising Services (IPAS), and using data to support at-risk students.<sup>15</sup>

**PROGRESSION, continued**

<b>Retention Rate</b>	
Definition	The percentage of students in a cohort who are either enrolled at their initial institution or transfer to a longer program at the initial or subsequent institution, calculated annually up to 200 percent of program length
Population	Twelve-month incoming student cohorts by credential level and student enrollment status and attendance intensity (e.g., FTFT, FTPT, TFT, TPT)
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Timely registration for classes</li> <li>• Term-to-term retention rates</li> <li>• Retention with advanced class standing (e.g., credits)</li> <li>• Stopout or consecutive enrollment rates</li> <li>• Academic standing (e.g., GPA, credits) on transfer or dropout</li> <li>• Number of credits and degree conferral at transfer out</li> <li>• Near completion (e.g., fewer than 15 credits) on transfer or dropout</li> <li>• Major/degree at subsequent institution compared with initial institution</li> <li>• Withdrawal rate (percentage of all enrolled students who leave in one year)</li> </ul>

**17** initiatives measure Retention Rate

*Field Usage and Convergence*

First-year retention rates are a commonly used metric of student progression, collected in IPEDS and sixteen voluntary initiatives reviewed for this project.<sup>16</sup> However, retention rate specifications often do not align with other progression and outcome metrics, such as graduation rates. This framework’s retention definition aims to leverage the field’s best thinking about progression and completion to design a retention metric that parallels those efforts.

For instance, CCA and IPEDS use fall enrollment cohorts to measure retention, but this framework proposes a 12-month cohort to capture more nontraditional students. Also, while IPEDS and other commonly used retention metrics measure retention only after one year, this framework proposes tracking retention every year up until 200 percent of program length to provide continuous updates on the progress of each cohort. Additionally, while VFA does not count transfer students as retained and CCA includes in the numerator of the retention rate students who transfer to any level of institution or program, this proposed measure includes in the numerator only students who transfer to a longer program. This recommendation aligns with the framework’s proposed retention rate with the proposed outcome measures (graduation, transfer, and success). Students who transfer into degree programs with the same or shorter length do not count in the numerator of this retention

rate but are captured in the numerator of the persistence rate. Finally, some initiatives, like the VFA, measure retention rates term-to-term in the first year, rather than annually from the first to second year. To manage reporting burden, this framework opts for longer term reporting (up to 200 percent of program time) over more frequent (term-based) reporting, although institutions could supplement this retention metric by reviewing retention data each term.

*Use Cases*

Measuring retention across years enables an institution to decipher when and which students stopout and dropout and, through subsequent investigation of submetrics, determine why. For example, a student dropping out after one year is very different from a student dropping out just short of a credential. Parsing the different times for stopout and dropout, especially for different student populations such as underrepresented minorities, allows institutions to target interventions to address students’ specific barriers or needs.

Programs and institutions can further use the recommended submetric data on academic

momentum and achievement at the time of stopout or dropout to better understand if students are leaving their institution due to income constraints, low achievement, or alternative reasons. While largely used as an institutional improvement measure, retention rates can also serve as important signals for both prospective students, who can use retention to select institutions where they have the best chance of persisting, and policymakers, who can design policies and programs that promote higher retention rates.

## PROGRESSION, continued

Persistence Rate	
Definition	The percentage of students in a cohort remaining enrolled or earning a credential at their initial or subsequent institution, measured annually up to 200 percent of program length
Population	Twelve-month incoming student cohorts by credential level and student enrollment status and attendance intensity (e.g., FTFT, FTPT, TFT, TPT)
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"><li>• Stopout or consecutive enrollment rates</li><li>• Academic standing (e.g., GPA, credits) on transfer or dropout</li><li>• Number of credits and degree conferral at transfer out</li><li>• Near completion (e.g., fewer than 15 credits) on transfer or dropout</li><li>• Major/degree at subsequent institution compared with initial institution</li><li>• Withdrawal rate (percentage of all enrolled students who leave in one year)</li></ul>

14

initiatives measure Persistence Rate

### Field Usage and Convergence

The persistence metric in this framework is based largely on the Student Achievement Measure (SAM), an initiative supported by the American Association of Community Colleges (AACCC), the American Association of State Colleges and Universities (AASCU), the Association of American Universities (AAU), the American Council on Education (ACE), the Association of Public and Land-grant Universities (APLU), and the National Association of Independent Colleges and Universities (NAICU).

Specifically, the framework's recommendations closely mirror SAM's bachelor's-seekers model. For instance, this framework recommends including enrollment and completion at subsequent institutions in the persistence rate numerator because those figures can provide useful feedback to all colleges, particularly two-year colleges, to help support students along their degree pathways. Thus, the numerator of the persistence metric includes counting students who: have earned any credential at their initial institution, have earned any credential at any subsequent institution, are still enrolled at the initial institution, or are still enrolled at any subsequent institution. This methodology matches SAM's bachelor's-seeking model, but differs from its associate's-seeking model, which does not require institutions to report completions at subsequent institutions and reports only once at the end of the six-year reporting period. By applying consistent metric definitions to all credential levels, this framework aims for results that are more comparable across institutions. Additionally, the associate's-seeking model for SAM is scheduled to expand this fall to offer an option of applying the bachelor's-seeking model to associate's-seeking students.

This framework's proposed persistence metric does expand on SAM by using 12-month cohorts for all three undergraduate credential levels (bachelor's degree, associate's degree, certificate) and all four incoming student cohorts (FTFT, FTPT, TFT, TPT) as detailed in the cohort specifications section of this paper, instead of the fall-start cohorts SAM uses, as a reflection of IPEDS definitions. As currently specified, SAM's bachelor's-seeking model requires only two cohorts: FTFT and TFT, although institutions may opt to report FTPT and TPT students also. SAM also reports outcomes to only 150 percent of program time, whereas some collections, like the VFA and IPEDS Outcome Measures, track certificate- and associate's-seeking students to 300 percent or 400 percent of program time, stating that this additional time could capture additional students who may have stopped out or dropped out during their education careers.<sup>17</sup> This framework strikes a compromise,

proposing that persistence rates be measured annually up to 200 percent of program time, signaling the

importance of timely completion while also allowing some flexibility for students who take longer to complete.

The framework does distinguish this *persistence* metric from the proposed *success* metric, which measures whether students earn the credential sought at their initial institution or transfer to a longer degree program at the initial or subsequent institution, because the field is using both of these measures for complementary, yet distinct uses. This measure is designed to include those students not captured in the numerator of the retention or success measure, for a more comprehensive view of student persistence. By tracking all transfers and completions, the student-centric persistence metric is designed to present a comprehensive picture of student movement throughout the postsecondary system, while the institution-centric success metric is designed to focus colleges and universities specifically on their institutional contributions to students' outcomes (for more detail, see the section on outcome rates).

### Use Cases

Along with retention and outcome rates, institutions, prospective students, and policymakers can use persistence rates to better understand the full range of outcomes for college students. For institutions, for instance, the persistence rate signals a credible target for improving their success rates, because students who are persisting elsewhere might have graduated from their initial institution instead. The persistence rate is also useful for institutions that aim to prepare many of

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**PROGRESSION**, continued

their students for transfer, so they can demonstrate their progress and success.

Institutions can also use information gleaned from the full range of student progression outcomes reflected in the persistence rate to inform student support policies and programs, as well as academic programs. The submetrics mirror those recommended for retention and can help institutions evaluate when, which, and why students move within and outside of the institution. Policymakers can use persistence rates to evaluate how students progress through the higher education system, especially when examined within a state. Finally, students can use persistence rates in concert with outcome rates to understand how they may fare by beginning at a particular institution, while also accounting for potential success elsewhere. These rates add another layer of information that prospective students and families can use to make the best and most informed higher education decisions.

## COMPLETION

Outcome Rates: Transfer Rate, Graduation Rate, and Success Rate	
Definition	<p><b>Transfer rate:</b> The percentage of students in a cohort who transfer into longer programs at the initial or subsequent institution(s), up to 200 percent of program length</p> <p><b>Graduation rate:</b> The percentage of students in a cohort who earn the credential sought at their initial institution, up to 200 percent of program length</p> <p><b>Success rate (graduation rate + transfer rate):</b> The percentage of students in a cohort who either graduate with the credential initially sought at the initial institution or transfer to a longer program at the initial or subsequent institution(s), up to 200 percent of program length</p> <p>Each outcome rate should be captured at least at 100 percent, 150 percent, and 200 percent of program length, and should be reported in real-time, not retroactively.<sup>18</sup></p>
Population	Twelve-month incoming student cohorts by credential level sought, enrollment status, and attendance intensity at entry (e.g., FTFT, FTPT, TFT, TPT)
Disaggregates	Academic preparation, economic status (at entry), race/ethnicity, gender, age, first-generation status, and program of study (at entry)
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Stopout or consecutive enrollment rates</li> <li>• Graduation rates by number of transfer-in credits (if applicable)</li> <li>• Academic standing (e.g., GPA, credits) on transfer or dropout</li> <li>• Number of credits and degree conferral at transfer out</li> <li>• Near completion (e.g., fewer than 15 credits) on transfer or dropout</li> <li>• Major/degree at subsequent institution compared with initial institution</li> <li>• Withdrawal rate (percentage of all enrolled students who leave in one year)</li> </ul>

### Field Usage and Convergence

More accurately accounting for the success of all students has been a top priority of many voluntary initiatives over the past decade. In fact, 18 of the initiatives reviewed for this framework collect some variation on the proposed metrics, with varying levels of detail. IPEDS, SAM, VFA, Access to Success (A2S), and CCA in particular provide the foundation for this framework's proposed outcome measures, disaggregates, and calculations. Reflecting the advancements in the field, this framework recommends tracking these outcomes for four 12-month enrollment cohorts. The four cohorts (FTFT, FTPT, TFT, TPT) are based on the cohorts defined in the IPEDS OM survey as well as the voluntary initiatives. Precedent also exists in the field for tracking separate cohorts based on credential sought, as the federal government now requires institutions to report credential-seeking status by credential level for federal aid purposes, and CCA and SAM report separate cohorts based on credential level sought. Although some students will change credential levels throughout the course of their studies, most students do not. Of those students who attain a degree,

Beginning Postsecondary Student (BPS) Survey shows that at least 85 percent receive their initially sought degree at the first institution attended, as opposed to a subsequent institution.<sup>19</sup> Similarly, according to a recent National Student Clearinghouse (NSC) report, 77 percent of the 2009 cohort that completed a degree did so at the initial institution.<sup>20</sup>

Finally, in terms of transfer, CCA tracks transfer only from a two-year to a four-year institution, while IPEDS OM and SAM report all transfers combined. This framework builds and expands on this previous work, recommending that institutions report transfer from a shorter to a longer credential program separately from transfer to a credential program of shorter or the same length. Only transfer to a longer program is counted in the recommended success rate, but all types of transfer are captured in the persistence metric described earlier. To better reflect student pathways, CCA recently began collecting a success rate, using the same calculation as recommended by the framework. This differentiation of transfers by level of receiving credential program in the success rate is particularly relevant for measuring the success of community-college students seeking transfer to four-year programs. New research also stresses the importance of tracking transfer from community college to four-year institu-

tions to measure the effectiveness of an institution's ability to support students through the transfer process.<sup>21</sup> Some initiatives have reported in the past that it is not possible to reliably identify the length of the transfer credential program, only the level of the transfer institution. However, due to

new federal reporting requirements for loan and Pell eligibility, the Clearinghouse is reporting near complete coverage on credential length in 2015 in its enrollment file, so we are confident that institutions can make this distinction or should be able to in the near term.

### Use Cases

These outcome rates provide a more complete picture of how effectively students achieve their postsecondary objectives, highlight institution-level student success, and best reflect the information needed by students, policymakers, and institutions to understand and improve student outcomes. Outcome rates are used in tandem with persistence and retention rates to explore student mobility and success in higher education even more fully.<sup>22</sup>

17 initiatives measure Transfer Rate

18 initiatives measure Graduation Rate

3 initiatives measure Success Rate

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**COMPLETION**, continued

Disaggregated for student characteristics like race/ethnicity, economic status, age, first-generation status, and academic preparation, outcome rates can be particularly useful in helping institutions target their efforts to promote equitable results among all of their students. For example, examination of the disaggregated outcome rates recommended here could allow institutions to identify groups of students that need more support and subsequently design interventions to move more of those students toward completion. In particular, nearly every initiative examined disaggregates completion rates by Pell status, demonstrating that such reporting is feasible and useful for institutions and policymakers—both of whom are increasingly interested in the success of low-income students. Furthermore, understanding what types of programs students transfer to can give colleges insight into whether they are helping students reach their next intended degree goal or whether they can improve by retaining students who are simply leaving to attend other institutions. Given that completing a credential is the primary goal of most students, it is crucial that institutions take a close and frequent look at the completion outcomes of all of their students.

## COMPLETION, continued

Completers	
Definition	The number of students who complete a credential in a given year
Population	All completers in a given year by credential level attained
Disaggregates	Race/ethnicity, gender, age, academic preparation (at any time), economic status (at any time), first-generation status, program of study (at exit), and part-time (at any time) and transfer status
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Crosstabulations of credentials awarded by key disaggregates (e.g., race and gender)</li> <li>• Distribution of credentials awarded by program of study</li> <li>• Distribution of credential awarded to underrepresented populations</li> <li>• Credentials awarded to underrepresented populations in STEM</li> <li>• Time and credits to credential</li> </ul>

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initiatives measure Completers

### Use Cases

Institutions can use counts of completing students to demonstrate productivity and their institutional contribution to the workforce and society. Especially when disaggregating by demographic characteristics, top-performing institutions can make the case that they are contributing large numbers of underrepresented college graduates. Alternately, these data on completers could show that some institutions are producing very few graduates in certain fields (e.g., STEM) or from certain student groups (e.g., African Americans) or a cross between the two (e.g., African American STEM graduates). These results can trigger the college to investigate the cause for small numbers or gaps and evaluate whether their credential awarding patterns align with institutional goals and workforce needs. Students and policymakers can employ this metric to examine

### Field Usage and Convergence

This completers metrics recommends counting the number of *students* who complete, as opposed to the number of *credentials* completed. This specification follows convention for the new completers measure added to IPEDS in 2011–12. While IPEDS collects counts of both completers (number of students) and completions (number of degrees/certificates), this framework recommends using completers as the primary metric, as it aligns with national goals to raise attainment by graduating more credential completers. However, it may still be appropriate to track and report completions (including students who earn multiple degrees at the same time) for other purposes.

IPEDS disaggregates the number of completers by credential level, gender, race/ethnicity, and age and the number of completions by credential level, program of study, race/ethnicity, and gender. This framework recommends using all of these disaggregates already in IPEDS and adding economic status, academic preparation, first-generation status, and part-time and transfer status as recommended disaggregates. In addition to IPEDS, the VFA and others<sup>23</sup> collect unduplicated completion counts, which are functionally similar to this proposed completers metric.

the types of students that succeed at a particular college, contributing to informed school selection and strategic policies that advance those institutions that serve all students well. For example, many states include the number of credentials awarded or students completing—particularly for underrepresented student groups—in their outcomes-based funding formulas.<sup>24</sup>

COMPLETION, continued

Time and Credits to Credential*	
Definition	<p><b>Time to credential:</b> The average time accumulated from first date of entry to the institution to date of completion for all completers in a given year</p> <p><b>Credits to credential:</b> The average credits accumulated from first date of entry to the institution to date of completion for all completers in a given year</p>
Population	All completers in a given year by credential level attained
Disaggregates	Race/ethnicity, gender, age, academic preparation (at any time), economic status (at any time), first-generation status, program of study (at exit), and part-time (at any time) and transfer status
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Average number and percentage of transfer credits accepted (if applicable)</li> <li>• Number of course D's, F's, W's, I's or retakes</li> <li>• Major declaration/major changes</li> <li>• Stopout or continuous enrollment rates</li> <li>• Cumulative debt by time or credits to credential</li> </ul>

\*Although classified as an efficiency metric in the framework, this is presented in this chapter because of its close relationship with the completers metric.

**8** initiatives measure Time and Credits to Credential

*Field Usage and Convergence*

Time and credits to credential measure the efficiency with which students complete their degrees or certificates. As such, it is classified as an efficiency metric in this framework but presented here alongside the performance metrics because it is so closely connected to the completers metric. Time and credits to credential have become commonplace in the field, with eight initiatives, including ATD, CCA, and the PAR Framework calculating similar metrics.<sup>25</sup>

This metric measures only credits accumulated and time spent at the specific institution of interest, though if measuring for a state or system, credits at any institution in that state or system should be included. The framework proposes using CCA's definitions and methodology for remedial courses and stopouts. For example, remedial courses *should count* toward the total accumulations, regardless of whether the credits count toward degree completion, to provide a comprehensive picture of time and credit accumulation for students at varying levels of academic preparation.<sup>26</sup> To control for outliers and reflect institutional practices related to stopouts, this recommended calculation excludes students who stopout for more than five years.<sup>27</sup> As for disaggregations, the framework builds on those required by CCA to further align these metrics with many of the others included in the framework. These disaggregates also allow for deeper and more dynamic analysis.

*Use Cases*

This metric allows institutions to analyze how efficiently students complete credentials, flagging potential inefficiencies to be addressed. First, institution and department leaders can use these data to understand which programs take longer to complete and thus may be more costly options for students, as well as programs that need curricular review to determine if degree requirements are set appropriately. Some credential requirements may be outdated and could be streamlined to reduce the number of credits required for completion while still maintaining quality. In some cases, students may be taking unnecessary courses because credential pathways are not communicated clearly or because the courses they need for their credential are unavailable, which can be addressed in the academic advising and scheduling process.

Also, if certain student populations tend to take

more courses than needed or take a long time to complete, corrected pathways and additional supports can be implemented at the college or department level to intervene with additional advising for students at risk of extended time to credential. Additionally, those institutions with favorable transfer policies should show lower rates of time and credits to degree because acceptance of transfer credits enhances efficiency. In cases where the opposite is true, transfer policies could be reevaluated to decrease time to credential. Students also can use these data to inform college decision-making. Because time and credits to credential directly affect college affordability for many students, knowing these outcomes manages expectations for personal finance and time that should be dedicated to higher education. For policymakers, longer-than-average time to completion can signal inefficient use of federal or state funds.

## COST

Net Price*	
Definition	<p>The average cost of attendance (COA) for an institution less all grant aid in a given year</p> $\text{Net Price} = \text{COA} - \text{All Grant Aid}$ <p>COA follows federal definitions for costs associated with a year of college, including tuition and fees; room and board (determined by living arrangements); books and supplies; and other expenses, like travel and personal items</p> <p>Grant aid includes grants from all sources (federal, state or local, institutional, and other)</p>
Population	FTFT, and all full-time undergraduates by credential level; includes all students, not just aid recipients; excludes out-of-state students
Disaggregates	Credential level, economic status (at that time), academic preparation, race/ethnicity, gender, age, first-generation status, program of study (at that time)
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Percentage of students applying for aid</li> <li>• Percentage of students receiving grant aid (by type or source)</li> <li>• Net price for students receiving grant aid</li> <li>• Net price by dependency status</li> <li>• Net price divided by average income within quintiles</li> <li>• Net price for part-time, transfer, out-of-state students</li> <li>• Net price by year in college</li> <li>• Number of hours worked</li> <li>• Number of dependents</li> </ul>

\*Also see the related unmet need metric.

3

initiatives measure Net Price

### Field Usage and Convergence

This net price metric recommendation is based on the current IPEDS collection but expands on it by including non–grant aid or non–Title IV aid recipients, adding a cohort for all full-time undergraduates and cohorts by credential level, allowing for analysis of grant aid by source, and adjusting the income bands. This metric follows IPEDS methodology by calculating a weighted average COA based on students’ living arrangements (on-campus, off-campus with family, off-campus not with family). COA for non-Free Application for Federal Student Aid (FAFSA) filers may need to be estimated if living arrangement information is not available through other sources.

#### Including nongrant/non-Title IV aid recipients

The precedent in IPEDS is to include only first-time, full-time grant/Title IV aid recipients in net price reporting, but this framework recommends expanding coverage by adding nongrant/non–Title IV aid recipients into the cohorts to surmise a more accurate picture of net price for more of the student population. Some contend that displaying the net price for aided students next to the percentage of students receiving aid provides a comprehensive enough picture of net price for all students. While these two data points together are valuable,

the net price figure is often displayed separately from the percentage of students receiving aid, creating a misleadingly low result by omitting full-pay students. Because of this limitation, the framework recommends including nonaided students in the calculation to present an “upper limit” of what students might be expected to pay.<sup>28</sup>

Others have noted that income data may not be available for non–Title IV recipients, making it difficult to disaggregate net price by income if all students are included. Although income data will be missing for some students not receiving federal aid, it will be available for all FAFSA filers, accounting for 70 percent of students, even if they do not receive aid, because that information is provided back to institutions. Indeed, for students whose family income falls in the upper two quintiles, at least 55 percent of students apply for federal aid.<sup>29</sup> Also, some colleges collect income information through their own financial aid applications or other methods, supplementing the FAFSA data. Therefore, it is recommended that institutions use all available income data and classify remaining students in an income-unknown category.

#### Adding a cohort for all full-time undergraduates and separate cohorts for each credential level

This framework also recommends adding a cohort of all full-time undergrads to supplement the first-time, full-time net price cohort. This all-undergraduate cohort will capture pricing for continuing and transfer students who may receive different levels of aid as compared with first-time students. While the all-undergraduate net price cohort would be an addition to IPEDS, including it aligns with other portions of IPEDS that collect a measure for both a *FTFT cohort* and an *all undergraduate cohort* (e.g., number and size of Pell Grant awards and federal student loans). Also, the framework expands on IPEDS by recommending separate net price calculations for each credential level offered at the institution. IPEDS data currently group students together regardless of credential level sought, but COA and grant aid may vary by credential level. While the framework includes only full time, in-state students to normalize costs, part-time and out-of-state student net prices could be calculated separately as submetrics to better understand the financial situations of those populations.

#### Allowing for analysis of grant aid by source

While not impacting the ultimate net price figure, this framework recommends reporting the federal, state, and institutional grant aid separately for each income level—rather than combined, as IPEDS does now. Reporting separate amounts

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## **COST**, continued

for each type of grant aid will allow one to evaluate the distribution of grant aid across income levels for each source. These measures of grant aid by source already are used to calculate the IPEDS net price figure, but they are not reported separately, confounding the impacts of federal, state, and institutional financial aid policies on students of varying income levels. However, average federal, state, and institutional grant aid *are* available elsewhere in IPEDS, just not disaggregated by income. These data would be more valuable if disaggregated by income level and better integrated across surveys.

### Changing the income bands

Finally, this framework advances recommendations for new net price income bands using quintiles based on the annually published American Community Survey (ACS) family income data.<sup>30</sup> As the one-year ACS survey estimates are published two months ahead of the IPEDS net price data collection, the income categories can be updated annually to better reflect the landscape of families and students applying for aid. While the income thresholds will change annually, the methodology will offer consistency by always representing national income quintiles. These income quintiles demonstrate a change from the current IPEDS net price income categories, the origins of which are unclear, although they appear to approximate ACS quintiles from the time the net price legislation was being drafted in Congress.<sup>31</sup> They are not indexed to change over time, although the Secretary of Education has the authority to adjust them.

### *Use Cases*

This metric is likely best known as a consumer information tool, providing students and families with the likely cost of higher education at any given institution based on their income level. However, current net price figures can be misleading

because they apply only to students who receive aid, thus omitting the amount paid by nonaided students and making the results particularly unrepresentative of higher-income students who are less likely to receive Title IV aid.<sup>32</sup> Because students do not know whether they will receive aid before applying, they do not know if the IPEDS net price figures will apply to them. This framework's proposed metric provides comprehensive net price data for all consumers to evaluate expected prices and for policymakers to assess college affordability for all attendees, not just recipients of federal funding. Policymakers also should use net price results to evaluate how institutions and states spend their aid dollars and determine whether their practices align with the priorities of the federal government in lowering the net price for low-income students. Regardless of the adoption of this proposed net price metric, institutions should improve and better publicize their net price calculators so prospective students and families can obtain a more customized estimate of their expected price.<sup>33</sup>

For institutional improvement, financial aid officers and other college administrators can use these more inclusive figures to evaluate how much they are expecting students from different income levels to pay and can adjust financial aid policies and target intervention strategies accordingly. If, for instance, the net price is higher for low-income students than high-income students, the institution or state should redistribute grant aid toward the students with greater need. The net price submetrics also can be especially useful to guide institutional action. For example, if an institution finds that net price increases substantially for low-income students based on their year in program, they can reevaluate policies to implement more predictable prices across time.

## COST, continued

Unmet Need*	
Definition	The average net price for an institution less the average expected family contribution (EFC) in a given year $COA - All\ Grant\ Aid - EFC = Net\ Price - EFC$
Population	FTFT, and all full-time, undergraduates by credential level; includes all students, not just aid recipients; excludes out-of-state students
Disaggregates	Credential level, economic status (at that time), academic preparation, race/ethnicity, gender, age, first-generation status, program of study (at that time)
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Percentage of students applying for aid</li> <li>• Percentage of students receiving aid</li> <li>• Percentage of students with unmet need and their average unmet need</li> <li>• Unmet need for aid recipients by type or source</li> <li>• Unmet need by year in college</li> <li>• Part-time, transfer, and out-of-state unmet need</li> <li>• Student payment methods for meeting unmet need</li> <li>• Completion rates by level of unmet need</li> <li>• Number of hours worked</li> <li>• Number of dependents</li> </ul>

\*Also see the related net price metric.

0 initiatives measure Unmet Need

### Field Usage and Convergence

This unmet need metric expands on what is currently collected through the IPEDS net price metric, by incorporating EFC into the calculation. Unmet need is used frequently by institutions, advocates, and researchers to evaluate the adequacy of financial aid in meeting students' financial needs.<sup>34</sup> However, an institution may not have data to calculate unmet need for all students in the cohort because of missing EFC information, which is calculated via the FAFSA. The framework recommends that reporting strive to be as complete as possible, given available data. Unmet need data are included in the National Postsecondary Student Aid Survey but are reported only at the national—not the institutional—level, which is problematic for all key constituencies needing the data.

While some prefer to use net price *or* unmet need, the framework encourages the field to consider both metrics in conjunction with each other, as they help understand the price of higher education in relation to family or personal income in different ways. For example, net price can be calculated as a percentage of family income, as a measure of affordability, whereas unmet need provides a concrete dollar amount that students must find a way to finance, above and beyond what their family can afford to pay.

### Use Cases

As part of financial aid awarding processes, institutional leaders should use unmet need to drive organizational change and improvement around equitable access to higher education. Accounting for EFC through an unmet need calculation offers a better understanding of the financial hurdles facing students of varying income levels and allows institutions to promote practices and processes that are mindful of affordability for all students. If, for example, the institution finds overmet need (negative unmet need) for high-income groups and substantial unmet need among low-income groups, which is the case in nationally representative survey data, it can adjust its financial aid policies to redirect aid to the students with remaining financial need.

The submetrics help to clarify how financial aid application, aid received, payment methods, dependency status, and work burden can impact unmet need, and a student's ultimate ability to pay for college. While much of these data are accessible through the National Center on Education Statistics' (NCES) sample studies, they are not available at the institution level, so the collection and analysis of these data could fill a large gap in the field's understanding of the variability of unmet need across colleges.

Students can use unmet need to evaluate whether that particular institution is affordable for them and how it financially serves students in similar financial situations. Policymakers could use this metric in tandem with net price to assess the full scope of financial burden that is placed on students and families and adjust financial aid policies accordingly—or encourage institutions to do so.

Cumulative Debt	
Definition	The median amount of debt student borrowers incur while attending an institution or program. Includes all sources of student debt—federal, state, institutional, and private loans
Population	All undergraduate borrowers who leave the institution in a given year (completers and noncompleters, but disaggregated)
Disaggregates	Credential level, completion status, economic status (at any time), enrollment status, attendance intensity (at any time), program of study (at exit), race/ethnicity, academic preparation (at any time), age, gender, first-generation status
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Percentage of students borrowing overall and by type of loan</li> <li>• Loan debt by type of loan</li> <li>• Loan debt by dependency status</li> <li>• Cumulative loan debt across all institutions attended for transfer students (if available)</li> </ul>

**7** initiatives measure Cumulative Debt

*Field Usage and Convergence*

The College Scorecard uses median cumulative loan debt as a core debt measure, derived from National Student Loan Data System (NSLDS) data.<sup>35</sup> The voluntary Common Data Set also collects debt data, which have served as the basis for most analyses of student debt to date.<sup>36</sup> This framework’s proposed definition for median debt is similar to the College Scorecard standards in many ways, as discussed below. Key components of this metric design include using completion status as an *essential* disaggregate, reporting the percentage of students borrowing as an *essential* submetric, and counting all debt accumulated at the reporting institution, including Parent PLUS and private loans.

Completion status is an essential disaggregate

This framework recommends including all students exiting the institution during a given year in the median debt measure, in addition to reporting separate cumulative debt figures for completers and noncompleters.<sup>37</sup> In other words, completion status is an *essential* disaggregate for this debt measure because debt aggregated across completers and noncompleters could confound results. For example, if a typical student leaves a college with a degree and \$30,000 in debt, that college is serving students far better than a college where the typical student leaves with \$30,000 in debt and no degree. Reporting cumulative debt for noncompleters is necessary as well because these students are most likely to struggle with repayment.<sup>38</sup>

The percentage of students borrowing is an essential submetric

To provide context around the accumulated loan debt, the framework also strongly recommends reporting the percentage of the cohort that borrowed any loans as an *essential* companion metric. An institution with \$30,000 in median debt

and 95 percent of students borrowing is performing very differently from an institution with \$30,000 in median debt and 5 percent of students borrowing. This combination creates the foundation for understanding loan borrowing patterns for an institution, and both should be reported together.

This methodology differs from the framework’s recommended net price definition, which includes all students—aided and unaided. Including all students in the net price measure results in a higher estimate of what students might be expected to pay than if nonaided students were omitted. In the same regard, *excluding* nonborrowers from the median debt calculation

leads to a higher estimate of debt than if nonborrowers were included. In both cases, the decision reflected in the

framework is designed to provide students with a sense of the greatest likely financial risk.

Count all debt accumulated at the reporting institution, including Parent PLUS and private loans

While the Scorecard includes only federal student loan debt, excluding Parent PLUS and private loans, this framework recommends including all loans, including Parent PLUS and private loans. While PLUS loans are taken out by a different person (parent rather than student), they still contribute to the family’s total debt required to pay for college, and combining them with student loan debt paints a more complete picture of college affordability or lack thereof.

In addition to including Parent PLUS loans, the framework also recommends including private student loan debt in this metric to discern the full extent of borrowing. While not required by law, most lenders require that an institution certify student enrollment at the time of the loan, so institutions should be able to keep records on private borrowing.<sup>39</sup> This private loan data collection goes beyond what is reported on the College Scorecard, but the benefits of understanding the extent of nonfederal loans, which often carry high interest rates and are void of the consumer protections federal loans afford, outweigh the additional burden of collection. If an institution prefers not to rely on its own records, it can access private student loan data through a contract with MeasureOne, a third-party that captures private student loan volume from the six major lenders, representing 71 percent of the student loan market.<sup>40</sup> One potential drawback to the inclusion of private loans is that while institutions are aware of the aid amounts as disbursed through the institution, they are not necessarily aware of earned interest or payments made while enrolled, which impact the total loan debt at exit. Regardless of this limitation,

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**COST**, continued

including the initial private loan amounts would still help to capture the amount borrowed to cover the cost of the degree.

While the framework recommends including all loan types in the cumulative debt amount, it also recommends disaggregating the metric by loan type to parse out the impact of different loan programs, like Parent PLUS and private loans. The framework also recommends disaggregation by credential level and program of study because students should be able to view debt and earnings side by side, by program, to understand their earnings prospects in relation to debt. Additionally, emergency short-term loans from institutions are not to be included in this metric, as their repayment period diverges from other federal loans and are not intended to cover unmet need—only emergencies. Finally, this framework recommends that the median cumulative loan debt metric include only the debt accrued from the reporting institution, as the Scorecard does, but the total cumulative debt submetric should include the students' total debt, regardless of institution or program, if available. This submetric will provide a more comprehensive view of the debt burden students carry into their post-college lives.

*Use Cases*

Understanding student loan debt is a necessary component to measuring institutional performance for policymakers and institutions alike, as financing can impact student access, progression, and completion. Specifically for cost metrics, the distinction among median debt among students of different economic statuses is essential, as high costs limit access to low-income students and further stratify higher education. With the disaggregates and submetrics, especially specific to low- and moderate-income students, institutions can use these data to develop better, more targeted counseling and services for populations who may be at risk of high student loan debt. Institutions and policymakers also can use the disaggregated debt data to help craft financial aid policies to reduce debt, especially for the most economically vulnerable students, as they are more likely to take on loan debt.<sup>41</sup>

Debt data also can be used to inform student decisions in the same way as net price, providing prospective students with a better understanding of how students in similar situations fare at the institution. Median cumulative debt seeks to quantify both affordability and financing methods used by typical students at each institution. While total loan volume across an entire institution, available on the Federal Student Aid Data Center, is a useful data point for evaluating broader trends regarding student loans, the median cumulative debt better demonstrates what is required financially of a typical student.

## POST-COLLEGE OUTCOMES

Loan Repayment and Default Rates	
Definition	<p><b>Loan repayment rate:</b> The percentage of borrowers in a cohort who make at least \$1 of progress on their loan principal in a fiscal year, measured at one, three, five, and 10 years into repayment</p> $\frac{\text{Number of Borrowers Paid in Full} + \text{Number of Borrowers in Active Repayment}}{\text{Number of Borrowers Entering Repayment}}$ <p><b>Cohort default rate (CDR- federal three-year rate):</b> The percentage of borrowers who enter repayment in a fiscal year and default in three fiscal years<sup>42</sup></p>
Population	All borrowers who enter repayment in a given year.
Disaggregates	Undergraduate versus graduate status, completion status, economic status (at any time while enrolled), program of study (at exit), race/ethnicity, enrollment status, attendance intensity (at any time while enrolled), academic preparation (at any time while enrolled), age, gender, first-generation status
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Incidence of deferment, forbearance, and delinquency</li> <li>• Use of income-driven repayment plans</li> <li>• Average amount of defaulted loan</li> <li>• Loan repayment and cohort default rates by loan type</li> <li>• Student Default Risk Index</li> </ul>

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initiatives measure Loan Repayment and Default Rates

### Field Usage and Convergence

The framework recommends using CDRs and repayment rates in tandem because CDRs measure the worst outcome for students—default—and repayment rates complement by showing whether student make at least minimal progress annually on their loans. CDRs are calculated and released by the U.S. Department of Education (ED) annually to determine institutional federal financial aid eligibility, and repayment rates were released on the latest College Scorecard.<sup>43</sup> The framework proposes maintenance of current field practice and definitions because institutions must work with the data that ED provides currently. Despite concerns around gaming CDRs,<sup>44</sup> this metric fills a crucial role in measuring institutional performance, by showing the frequency of students' worst debt-related outcome. Research has shown that institutions can reduce student loan default through targeted actions, improved performance on the metric and, more importantly, borrowers' financial situations.<sup>45</sup> Institutions are becoming more creative in ways to reach out to delinquent borrowers and help them into a positive repayment status before default.

Federal CDRs currently exclude PLUS, Perkins, consolidation, and private loans, although the framework recommends that institutions attempt to calculate for these loans default rates based on data from their Loan Record Default Reports (LRDR) and School Portfolio Reports (SPR) available through the Office of Federal Student Aid (FSA).<sup>46</sup> Because CDRs hold

institutions accountable for default on debt taken out to attend their institution or previous institutions, institutions that can parse out the default rate for loans from their institution alone, using their LRDR and SPR, could provide better outreach and counseling to students at risk. This framework also recommends the Institute for College Access and Success' (TICAS) proposed Student Default Risk Indicator (SDRI) as a submetric to CDRs. The SDRI is calculated by multiplying the CDR with the institution's borrowing rate to better contextualize the borrowing environment of the institution.<sup>47</sup> Either a lower borrowing rate or a lower default rate would improve performance on this metric.

Repayment rates gained prominence during the past five years through gainful employment regulations and proposals related to federal risk-sharing and accountability; they were included in the September 2015 release of the College Scorecard data.<sup>48</sup> These rates are valuable because borrowers could

be avoiding default but experiencing other poor outcomes, such as delinquency or negative amortization. The framework recommends using the basic calculation and definition parameters used in the Scorecard and in the 2014 gainful employment regulations: a borrower-based rate where the borrower must pay down at least \$1 of principal balance in the fiscal year measured to be counted as in repayment.<sup>49</sup> Repayment rates should be calculated at one, three, five, and 10 years into repayment in order to maintain consistency with repayment rates reported through the College Scorecard, with the length of the standard repayment period, and with other post-college outcome metrics recommended through the framework. Also, for future versions of the framework, field experts and policy-makers should define successful repayment as more than just a \$1 reduction in principal. The field acknowledges the need to raise the bar but has not chosen a new threshold for successful repayment.

At a minimum, ED should continue to release repayment rate data annually, either through updates to College Scorecard data or through the FSA or IPEDS Data Centers, and they also should consider improving the quality of the data available in the SPRs available to institutions. Detailed recommendations regarding repayment rates are discussed in *Making Sense of Student Loan Outcomes: How Using Repayment Rates Can Improve Student Success*.<sup>50</sup>

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## POST-COLLEGE OUTCOMES, continued

### *Use Cases*

To build on current practice, institutions are encouraged to integrate the CDR data they receive from ED with student-level data in their student information systems in order to conduct additional analysis.<sup>51</sup> With this integration, institutions can disaggregate default rates by completion, economic status, and credential level—including by graduate and undergraduate student status—to determine which students default. With additional support from ED, institutions also can attempt to extend the CDR time frame beyond three years, disaggregate by loan type, and recalculate CDRs based only on debt accumulated at their institutions. CDRs are also an important consumer information tool for prospective students and families because a high cohort default rate signals that students may have a difficult time repaying their loans, and default has serious credit consequences for students. Policymakers also use CDRs to set basic standards that institutions must meet to receive federal financial aid dollars.

Repayment rates can offer additional actionable data to improve borrowers' post-college outcomes. A set of four institutions recently calculated and disaggregated their own repayment rates in a variety of ways using FSA data and, through that endeavor, the colleges noted how valuable the results were in helping them rethink their practices, such as student loan counseling and financial aid packaging, to set students up to repay their debts successfully. When merging FSA data with institutional records, institutions can use repayment rates to evaluate which borrowers (e.g., noncompleters, students in specific programs, low-income students) are least likely to make adequate progress on their loans and target financial aid and interventions accordingly. Policymakers have proposed using repayment rates to enhance institutional standards and protect students through either minimum performance thresholds, risk-sharing, or consumer disclosures. This metric can also help alleviate concerns around CDR manipulation and the ability of institutions to game the system.<sup>52</sup>

## POST-COLLEGE OUTCOMES, continued

Graduate Education Rate	
Definition	The number and percentage of bachelor's recipients enrolling in postbaccalaureate or graduate programs in one, five, and 10 (optional) years of completion
Population	Bachelor's recipients in a given year
Disaggregates	Program of study (at exit), enrollment status, attendance intensity (at any time while enrolled), academic preparation (at any time while enrolled), economic status (Pell ever), race/ethnicity, gender, age, first-generation status
Submetrics for further analysis	<ul style="list-style-type: none"><li>• Relationship between undergraduate program of study and graduate program of study</li><li>• Income, gender, or racial gaps in graduate education, especially STEM programs</li><li>• Relationship between debt and graduate education enrollment or graduate program of study</li></ul>

3

initiatives measure Graduate Education Rate

### Field Usage and Convergence

In most of the reviewed voluntary initiatives, the graduate education rate is not explicitly captured. For some, like the NSC and the Western Interstate Commission for Higher Education (WICHE), the postbaccalaureate enrollment data are collected so the rate can be calculated if the initiatives chose to do so. The cohort for this framework's proposed graduate education rate includes only bachelor's recipients—the persistence and transfer metrics capture continuing education rates at 200 percent of program time for certificate- and associate's-seeking graduates.

The time frames of one, five, and 10 years are aligned with the earnings and employment metrics to be used in tandem to understand the spectrum of post-college outcomes for students, furthering the goal of counting all outcomes. To further support these timeline thresholds, the Baccalaureate and Beyond Longitudinal Study (2008–12) reports that 25 percent of students surveyed enroll in one year and almost 40 percent enroll in four years, showing a marked increase between the two time frames.<sup>53</sup> Graduate Record Examination (GRE) scores are valid for up to five years after taking the test, so measuring graduate education after five years should capture most students who completed a bachelor's degree with the intention of enrolling in further education.<sup>54</sup>

### Use Cases

At graduation, bachelor's recipients have a variety of options. In order to comprehensively account for post-college outcomes, the framework includes graduate education rates to capture outcomes for students who may choose not to enter the workforce. For students, policymakers, and institutions, these rates are used to fill in the gaps that exist when only employment outcomes are considered.

Additionally, institutions can compare graduate education rates with the mission of their programs to see if their credentials are in fact preparing students for their intended

outcomes—either employment or further education. If graduate education rates are

not consistent with expected student outcomes (i.e., the continuing education rate is low for a program that should be the foundation for graduate school education), then leadership can evaluate why student pathways are inconsistent with the institution's or program's goals. Because this metric is disaggregated by program of study, institutions also can use the submetrics to evaluate the enrollment of specific populations of students into graduate programs, specifically for the STEM fields, and measure whether students enroll in a program similar to that of the undergraduate degree.

## POST-COLLEGE OUTCOMES, continued

Learning Outcomes	
Definition	Public display of student learning goals, assessments, and outcomes using the National Institute for Learning Outcomes Assessment's (NILOA's) Transparency Framework.  Institutions also should consider using Lumina Foundation's Degree Qualifications Profile (DQP) and the Association of American Colleges & Universities' (AAC&U's) Valid Assessment of Learning in Undergraduate Education (VALUE) Rubrics to develop, refine, and measure mastery of learning outcomes
Population	Subject to institutional availability
Disaggregates	Credential level, economic status (Pell ever), race/ethnicity, and academic preparation, program of study
Submetrics for further analysis	• Subject to institutional availability

4

initiatives measure Learning Outcomes

### Field Usage and Convergence

This framework recommends reporting student learning outcomes using NILOA's Transparency Framework as a guide. The NILOA Framework encourages institutions to publish information about student learning outcomes statements, assessment plans, assessment resources, current assessment activities, evidence of student learning, and use of student learning evidence.<sup>55</sup> The Voluntary System of Accountability (VSA), an initiative of APLU and AACSCU, recently adopted the NILOA Framework.<sup>56</sup>

This framework recommends that institutions consider using Lumina Foundation's DQP and the AAC&U's VALUE Rubrics as tools for developing or refining their approach to student learning outcomes. The DQP provides a set of baseline reference points for what students should know and be able to do on earning a credential at the associate's, bachelor's, and master's degree levels. These encompass demonstrating proficiency in specific areas of learning including Specialized Knowledge, Broad and Integrative Knowledge, Intellectual Skills, Applied and Collaborative Learning, and Civic and Global Learning. The complementary Tuning process helps institutions to identify and assess discipline-specific learning outcomes.<sup>57</sup>

VALUE offers a set of rubrics for 16 essential learning outcomes. Two of these rubrics—Critical Thinking and Written Communication—were endorsed for use as part of the initial guidelines for the VSA College Portrait.<sup>58</sup> Lumina Foundation also leverages the VALUE rubrics in the DQP, highlighting the resource as a means for institutions and instructors to understand student achievement of college-wide learning or course objectives.<sup>59</sup> To continue to advance the use of these rubrics and to meaningfully compare the results across entities, AAC&U is partnering with the State Higher Education Executive Officers (SHEEO) to implement them at 69 institutions in 10 states.<sup>60</sup>

While NILOA, DQP, and AAC&U's VALUE rubrics are continuing to advance the field in assessing student learning, institutional usage of rubrics and assessments to gauge learning outcomes varies widely. Some institutions use these initiatives' rubrics and guidelines; some use standardized tests such as the Collegiate Learning Assessment (CLA), ACT's Collegiate Assessment of Academic Proficiency, and the Educational Testing Service (ETS) Proficiency Profile; and some use a combination of measurement techniques, including those developed at the individual institution.<sup>61</sup> As such, clear convergence across many institutions and initiatives is not yet apparent. Because the field remains in flux on this topic, this framework defers to VSA and their use of NILOA's Transparency Framework, as it is used by a large array of schools participating in the initiative.<sup>62</sup>

### Use Cases

Learning outcomes strive to quantify what students learn through their credential program. States and institutions should use these rubrics and assessment tools to benchmark progress on student outcomes and to refine teaching and curriculum to improve student learning. Institutions can use these tools to understand where gaps in student learning exist, especially for specific student groups (e.g., low-income students and students of color), restructure and revise course structure and content, and continuously improve student academic achievement.

Learning outcomes assessments also are used by institutions to demonstrate educational effectiveness transparently, effectively communicate program goals and outcomes to a variety of audiences, and fulfill accreditation requirements. While not in use in federal data collections, learning outcomes data can be used by the institution and state to measure the quality of programs and institutions of higher education. For example, in 2012 and 2013, Massachusetts commissioned the Multi-State Collaborative for Learning Outcomes Assessment to compare outcomes with other states in partnership with AAC&U and SHEEO.<sup>63</sup> Using the VALUE Rubrics as a common language, colleges and universities in Massachusetts used several metrics to create composite indicators of student learning, including: pass rates on national licensure exams and mean scores on graduate entrance exams.<sup>64</sup> States and institutions use these exams as evidence that college students accumulated knowledge and skills while enrolled. Precollege and post-college scores are examined to gauge quality of learning and inform curricular or instructional changes.

POST-COLLEGE OUTCOMES, continued

**Workforce Outcomes:  
Employment Rate, Median Earnings, and Earnings Threshold**

Definition	<p><b>Employment rate:</b> The percentage of former students with any reported annual earnings at one, five, and 10 years after exit from the institution<sup>65</sup></p> <p><b>Median earnings:</b> The median annual earnings of former students one, five, and 10 years after exit from the institution (excludes zeros)</p> <p><b>Earnings threshold:</b> The percentage of former students earning more than the median high school graduate salary (\$25,000 in 2014; includes zeros) at one, five, and 10 years after exit from the institution. The threshold should be updated annually using Current Population Survey data.<sup>66</sup></p>
Population	All students who exited the institution in a given year
Disaggregates	Credential level, completion status, program of study (at exit), economic status (Pell ever), race/ethnicity, gender, age, enrollment status, attendance intensity (at any time while enrolled), academic preparation (at any time while enrolled), first-generation status
Submetrics for further analysis	<ul style="list-style-type: none"> <li>• Percentiles for earnings (10th, 25th, 75th, and 90th)</li> <li>• Pre- and post-college earnings</li> <li>• Relative wages (e.g., compared with local or regional wages)</li> </ul>

*Field Usage and Convergence*

Increasingly, states and institutions are leveraging workforce data to enhance their understanding of labor markets in relation to higher education and student outcomes. Though some remain skeptical about the use of workforce measures—arguing they show a one-dimensional, incomplete view of college outcomes<sup>67</sup>—many seek this return-on-investment information. In fact, the use of Unemployment Insurance (UI) wage records at the state level to measure and publish student outcomes<sup>68</sup> and the inclusion of earnings and employment data in the recently revamped College Scorecard shows that students, policymakers, and the public are interested and invested in these data. Indeed, at least 90 percent of students say a primary reason they are attending college is to get a better job,<sup>69</sup> an understandable goal given the substantial financial investment students must make in their education. Proposed improvements to existing workforce data, like the inclusion of major-level data, could help to ease some of these concerns.<sup>70</sup>

After years of experimentation with workforce data in the states, the field is coming closer to consensus on how to define workforce metrics. In recent years, the federal government has built on the work of the states and defined and reported postsecondary workforce measures through both Gainful Employment and the College Scorecard. This framework heavily leverages the College Scorecard definitions, with some adjustments, to propose two workforce performance metrics (**employment rate** and **median earnings**) and one workforce efficiency metric (**earnings threshold**).

Employment Rate

A variety of demographic data sources, such as the Bureau of Labor Statistics, capture **employment rates** (or often, unemployment rates) at the national, state, and regional levels. The Workforce Innovation and Opportunity Act of 2014 (WIOA) requires reporting of employment rates for program exiters in addition to median earnings, credential attainment, measurable skill gains, and employer engagement.<sup>71</sup> However, until recently employment outcomes have not been reported for most colleges, including by program of study.<sup>72</sup> Now, the Gainful Employment regulations require institutions to report the program-level job placement rates of their graduates, and the College Scorecard data include an institution-level unemployment rate.<sup>73</sup>

Building on these efforts, this framework recommends an employment rate that counts as employed any graduate with any annual earnings in the specified period. This methodology

is similar to that used by the College Scorecard<sup>74</sup> and the metrics reported for Florida as part of College Measures' Economic Metrics.<sup>75</sup> Additionally, some outcomes-based funding models use an unemployment or employment rate to illustrate

similar points—the rate at which former students do or do not gain employment after exiting the institution or program.<sup>76</sup>

Median Earnings

This framework also recommends adopting a **median earnings** metric to gauge how students fare in the workforce after leaving college. A number of initiatives—including College Measures, the State Council for Higher Education in Virginia, WICHE's Multistate Longitudinal Data Exchange (MLDE), and the College Scorecard—measure post-college earnings, reflecting growing interest in these results.<sup>77</sup> This framework recommends using median rather than mean earnings to follow field practice,<sup>78</sup> disaggregating by at least credential level and completion status, reporting on wages at one, five, and 10 years after exiting the institution, and adjusting for inflation.<sup>79</sup> The proposed submetrics can provide added context to median earnings information, as follows:

- Evaluating earnings percentiles as submetrics can provide added insight about the full income distribution beyond what the median can show.
- Measuring the change in earnings pre- and post-college can provide a better understanding of the value-add of the credential, especially for returning adult students. A variety of

8
initiatives measure Employment Rate

7
initiatives measure Median Earnings

1
initiative measures Earnings Threshold

## POST-COLLEGE OUTCOMES, continued

initiatives and efforts, including the VFA, the Voluntary Institutional Metrics (VIM) Project, and Salary Surfer for California's Community Colleges, measure pre- and post-college earnings.<sup>80</sup> These data are valuable, but institutions are reliant on readily available labor data and may be limited in their ability to calculate the metric. As data systems improve, the framework recommends revisiting the possibility of calculating pre- and post-earnings metrics on a larger scale.

- Contextualizing median earnings with regional-level economic data can ease concerns about earnings that vary based on region. An example of such contextualization is the Aspen Institute College Excellence Program's measurement of relative wages, which compares graduates' wages with the average wage of the county of the community college, one and five years after program completion.<sup>81</sup>

### Earnings Threshold

Finally, the framework recommends an **earnings threshold** metric based on the methodology of the 2015 College Scorecard. This threshold measures the proportion of former students who earn above a bare minimum amount. ED chose \$25,000 because it is the median salary of students with a high school diploma or GED,<sup>82</sup> so earnings above \$25,000 indicate a fiscal value-add from the postsecondary education. The framework recommends updating this threshold annually to account for inflation and national income variation. It works particularly well alongside the median earnings metric because it sets a baseline expectation that any postsecondary program—regardless of expected career path—should at least boost student earnings above what they would likely earn without the college credential.<sup>83</sup>

### Data Sources

Unfortunately, institutions cannot implement all of these recommendations on their own, since they must rely on the data provided to them by state and federal sources, which need to be refreshed on a regular basis. Routine use of employment rates, median earnings, and the earnings threshold is contingent on the federal government continuing to supply these data through releases like the College Scorecard. Without them, institutions will need to rely on state sources, making it more difficult to achieve measurement consistency and comprehensiveness. For instance, while UI wage records are widely used for workforce outcomes, they exclude the self-employed, those who work for the federal government or military, and former students who reside in a different state.<sup>84</sup> Initiatives like WRIS2, the WICHE MLDE,<sup>85</sup> and the Federal Employment Data Exchange System build linkages between systems to fill some of these gaps, but a single federal source would be a simpler solution.

However, College Scorecard data are not without limitations. These metrics are populated by linking education records from NSLDS with earnings data from the U.S. Department of Treasury.<sup>86</sup> As a result, the metrics are limited to Title IV aid recipients, which represent 70 percent of all college students and only 62 percent of community college students.<sup>87</sup> Unfortunately, without more comprehensive student-level data, the federal government is limited to calculating workforce outcomes only for students included in NSLDS.

This framework proposes using these metrics with currently available data, but continuing to work toward better metrics, which would expand on the recent College Scorecard efforts by including all students; disaggregating by credential level, program, and completion status; and reporting outcomes one, five, and 10 years after program exit—rather than six and 10 years after program entry. Earnings can vary widely depending on college major, as some professions (e.g., teaching, social work) are expected to have lower earnings than others (e.g., finance, engineering), making program-level disaggregates particularly important.<sup>88</sup> Similarly, students who complete credentials typically earn more than those who do not, so results could be muddled if completers and noncompleters are not reported separately. Finally, measuring workforce outcomes among a cohort of students who *exit* at the same time would provide more consistent data than for a cohort of students who *enter* at the same time, likely leaving the institution at different times due to stopouts and varying time-to-degree. The framework recommends following states' leads by measuring workforce outcomes one, five, and 10 years after exit, as opposed to six and 10 years after entry.<sup>89</sup>

### Use Cases

Post-college workforce outcome measures like earnings, employment, and earnings thresholds can be used by a variety of audiences. Students and families can use these data to learn about the potential earning power of their intended degree post-graduation, considering the expected value in relation to the major investment required to attend an institution of higher education. In recent years, policymakers at both the state and federal levels have used workforce outcomes data for accountability and funding. For example, gainful employment incorporates student earnings—as it relates to debt—into its accountability framework. Of the 30 states with outcomes-based funding models, 12 use a form of labor market outcomes metrics as part of the equation,<sup>90</sup> highlighting the importance of these metrics to both policymakers and institutions. Institutions can use these data to be aware of their students' outcomes to revise program offerings, tailor prices

## POST-COLLEGE OUTCOMES, continued

and financial aid, and implement student supports like career services and increased work opportunities that make their students more prepared for the workforce.

The primary reason many students pursue college is to improve their employment prospects.<sup>91</sup> While students also gain other life skills in college that allow them to contribute to society in other nonfinancial ways, a baseline assumption for many students is that they will be prepared to earn a middle-class living. These metrics can be used individually or in tandem to explore post-college workforce outcomes for students.

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