

# ON THE ROAD TO SUCCESS

## HOW STATES COLLABORATE AND USE DATA TO IMPROVE STUDENT OUTCOMES

### EXECUTIVE SUMMARY

By the Achieving the Dream Cross-State Data Work Group



DEVELOPMENTAL  
EDUCATION  
INITIATIVE  
Accelerating Achievement



**NATIONAL DISCUSSIONS ABOUT EDUCATION REFORM ARE REPLETE WITH CALLS FOR MORE TRANSPARENCY, STRONGER ACCOUNTABILITY, IMPROVED OUTCOMES, AND A MORE EFFICIENT USE OF PUBLIC RESOURCES. ALL OF THESE GOALS REQUIRE GOOD DATA ABOUT STUDENT ACHIEVEMENT—DATA THAT ARE MORE DETAILED, MORE ACCURATE, AND MORE ACCESSIBLE THAN ANY STATE CURRENTLY HAS.**

**BUT COLLECTING THE DATA IS ONLY THE FIRST STEP. CENTRAL TO INCREASING STUDENT SUCCESS IS A COMMON APPROACH TO INTERPRETING RELEVANT DATA SO THAT INSTITUTIONS AND POLICYMAKERS IN EACH STATE CAN UNDERSTAND THE EXTENT OF SPECIFIC PROBLEMS, SEE THE IMPACT OF POTENTIAL SOLUTIONS, AND DECIDE WHERE TO ACT. PERHAPS EVEN MORE IMPORTANT IS DEVELOPING THE CAPACITY TO *USE* DATA ON STUDENT SUCCESS AND COMPLETION TRENDS TO SPUR DISCUSSION AND IMPROVE THOSE OUTCOMES WITHIN INSTITUTIONS, STATES, AND NATIONALLY.**

Enrollment is rising across our nation's community colleges, but completion rates remain untenably low. Reformers are focusing on the importance of using comprehensive, high-quality data on student progress and completion to bring about change. A core tenet of Achieving the Dream: Community Colleges Count has been to embed a culture of data-informed decision making on campuses and in state capitals. To move this work forward, a group of data experts from Achieving the Dream's state policy teams came together in 2005 to design and test a valuable set of intermediate measures that demonstrate how community college students progress—or, as is too often the case, fail to progress—toward a credential or further education. Most important, this Cross-State Data Work Group showed the predictive power of interim indicators for identifying students in great need of intervention early enough to help boost their chances of staying in and finishing college. The group now includes Arkansas, Connecticut, Florida, Hawaii, Massachusetts, North Carolina, Ohio, Oklahoma, Texas, Virginia, and Washington State.

*On the Road to Success* presents the next step taken by the Cross-State Data Work Group: a comparative analysis of a comprehensive set of intermediate milestones and final measures of success that practitioners and policymakers can use to rethink and remake their approaches to increasing student achievement. Any institution in the country can use these “Benchmarks of Student Success”—a set of key indicators of community college student progression and completion—to frame strategic planning. This is one of the first times such comparative data are being reported publicly.

The state-level data in this brief represent only part of what the members of the Data Work Group have collected and reported, and their cross-state conversations will continue. Perhaps an even more powerful impact will be derived as states turn this analytic approach inward and examine the comparative effectiveness of colleges within a single state.

## **INTERMEDIATE MILESTONES TO TRACK STUDENT PROGRESS**

The public, practitioners, and policymakers all need answers to essential questions about higher education institutions and investments. The most critical are about college completion: How many students complete credential programs? What are the variations by program type? What are the variations by student characteristics (e.g., age; gender; income; academic readiness; race/ethnicity; enrollment status)?

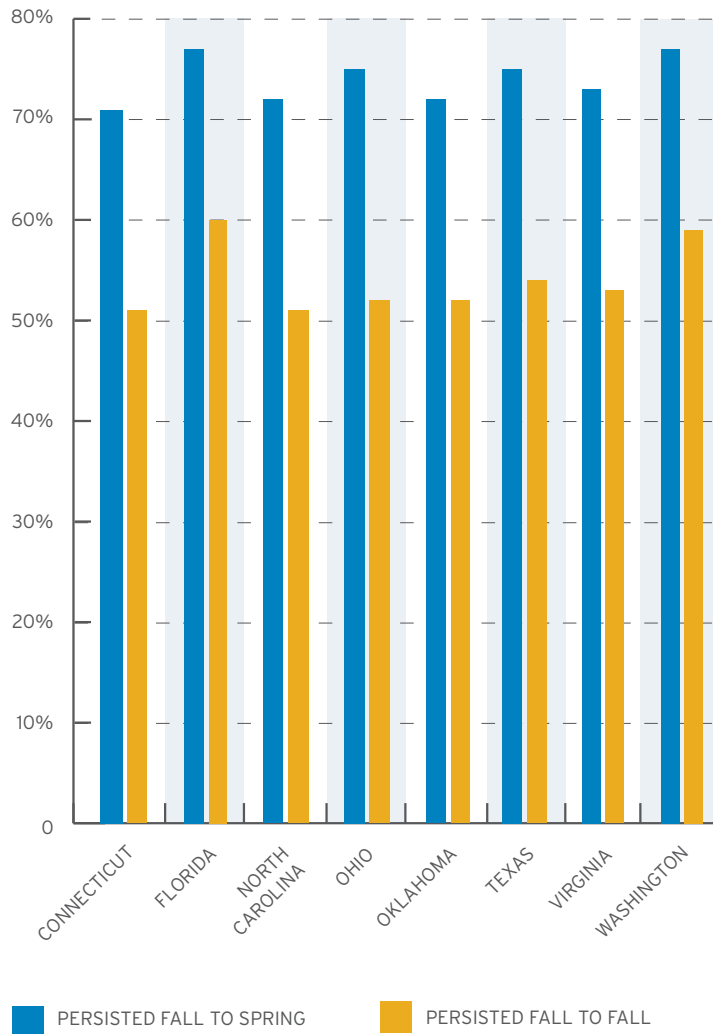
However, information on completion tells only part of the story. Final measures of success come too late to inform interventions and resource allocations that have the potential to improve student performance and help more students stay in school and complete. For this reason, the Data Work Group took on a new strategic priority after defining final success measures and benchmarks: designing a set of shorter-term measures of student success that correlate with and appear to predict completion or transfer success. These intermediate indicators enable states and institutions to track student progress toward meeting critical milestones along the road to college completion. They highlight the points at which students increase or decrease their chances of earning a credential. This information is crucial to developing and sustaining policies, programs, and supports to help more students succeed.

To create effective measures of student progress, the Data Work Group identified and defined first-year, second-year, and third-year milestones that research shows are predictors of student success. At the top of this list are: persistence from term to term and from year to year; the accumulation of credits within a particular time frame; and progress through developmental education and into college-level courses. After designing interim measures, the states in the Data Work Group began collecting cohort data on them from their community colleges. The goal was to begin analyzing state-level results and draw out the implications of cross-state comparisons.

## **INTERMEDIATE INDICATORS ENABLE STATES AND INSTITUTIONS TO TRACK STUDENT PROGRESS TOWARD MEETING CRITICAL MILESTONES ALONG THE ROAD TO COLLEGE COMPLETION.**

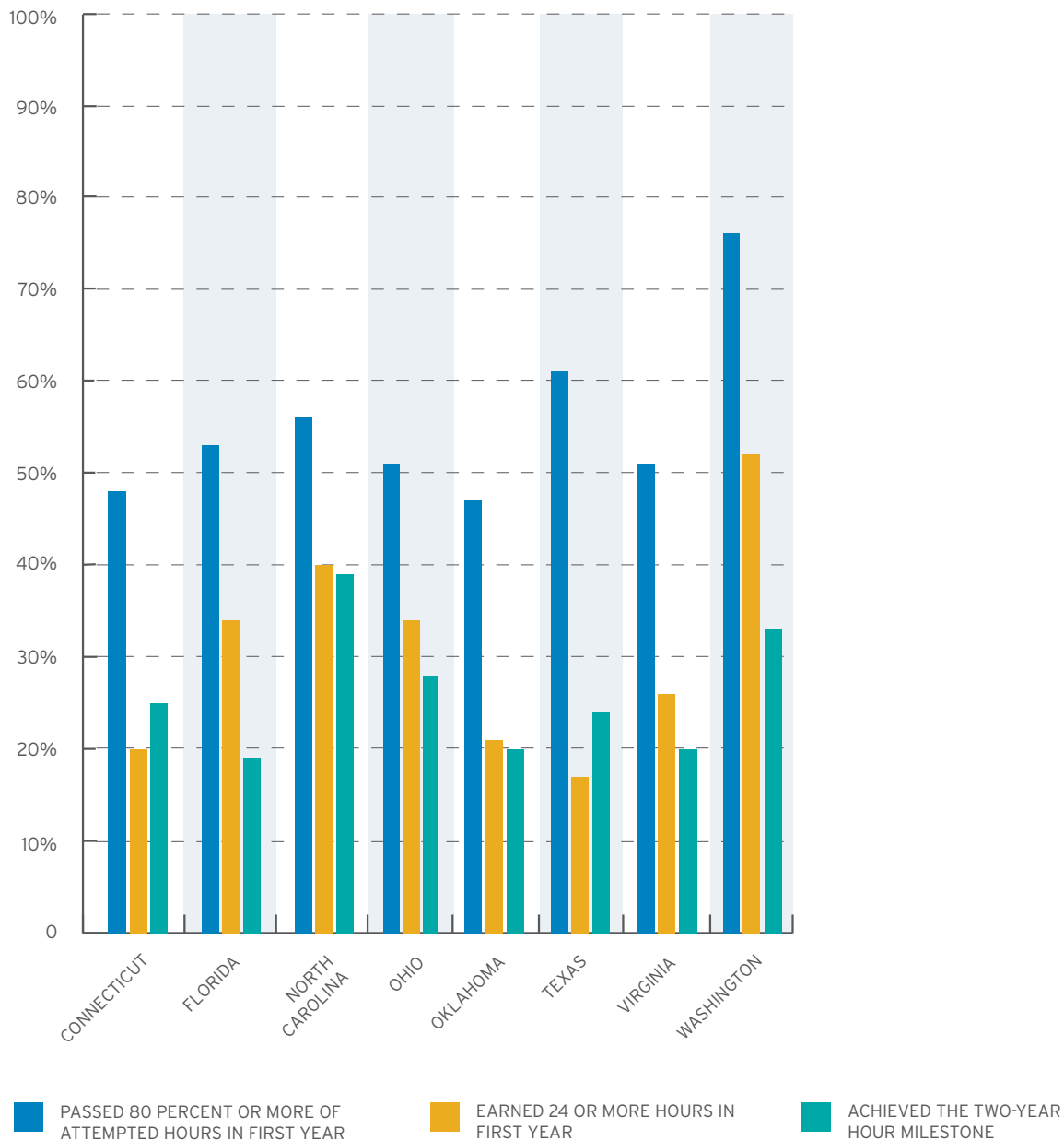
> **Student Persistence:** The Data Work Group states defined and collected common measures that track student persistence from the fall to the spring semester of their first year, as well as persistence from their first academic year to their second. Fall-to-spring persistence was greater than 70 percent in all Data Work Group states; it ranged from 71 percent in Connecticut to 77 percent in Florida and Washington. For all states, fall-to-fall persistence was at or below 60 percent, ranging from 51 percent in Connecticut and North Carolina to 60 percent in Florida. The national fall-to-fall persistence rate is 52 percent. In each state, there is at least a 15-percentage-point drop in persistence between fall-to-spring and fall-to-fall measures (see *Figure 1*).

**FIGURE 1**  
**STUDENT PERSISTENCE**



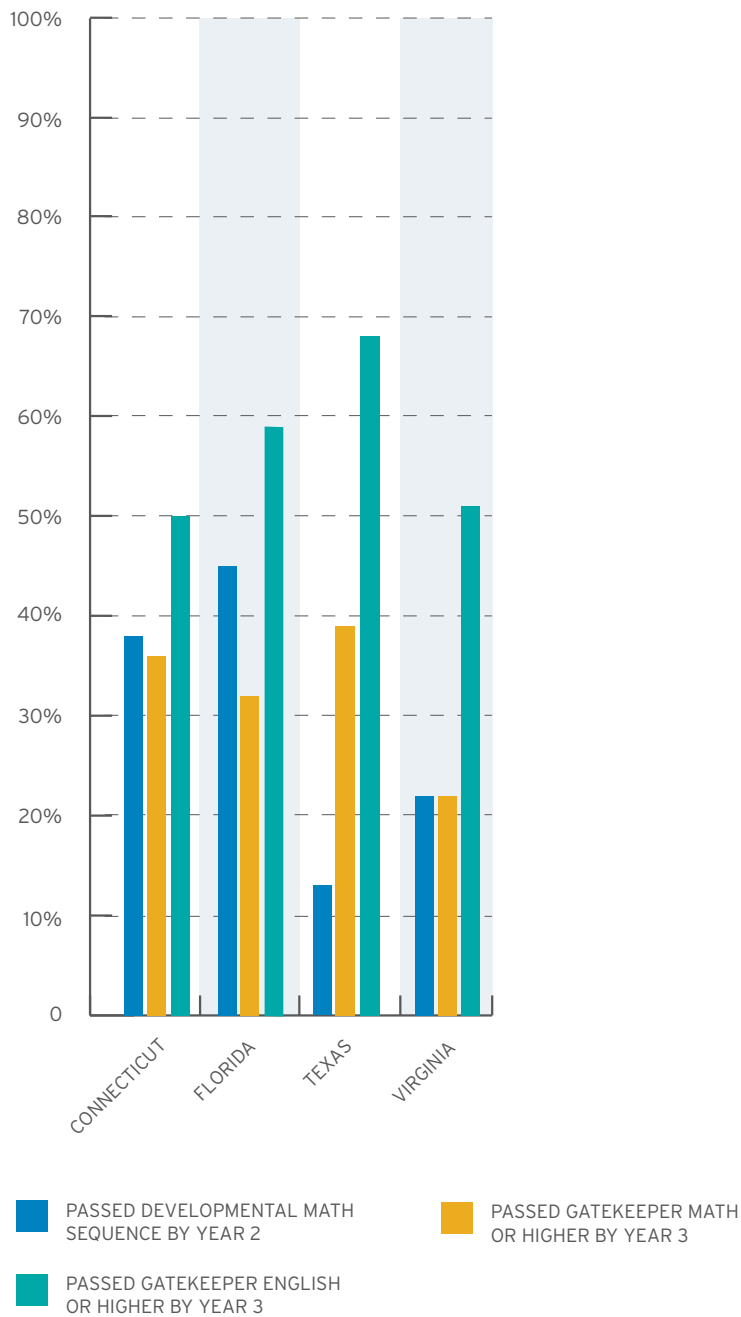
> **Credit Accumulation and Course Success:** Students who accrue more credits faster are more likely to attain a postsecondary certificate or degree than students who do not meet certain credit-accumulation thresholds. One measure—passing 80 percent of attempted credit hours—points to momentum in the all-important first year of college study. On this measure, Connecticut and Oklahoma report just under half of their student cohort hitting this milestone. Texas and Washington students performed better, with 61 percent and 76 percent, respectively (see Figure 2).

**FIGURE 2**  
**STUDENT CREDIT ACCUMULATION**



> **Progression into College Courses:** Among its intermediate measures, the Data Work Group included metrics that track student progression through developmental education and first college-level courses in English and math. Between 30 and 40 percent of students in Connecticut, Florida, and Texas complete their gatekeeper math courses by year three, while in Virginia about 20 percent of students reach this benchmark (see *Figure 3*).

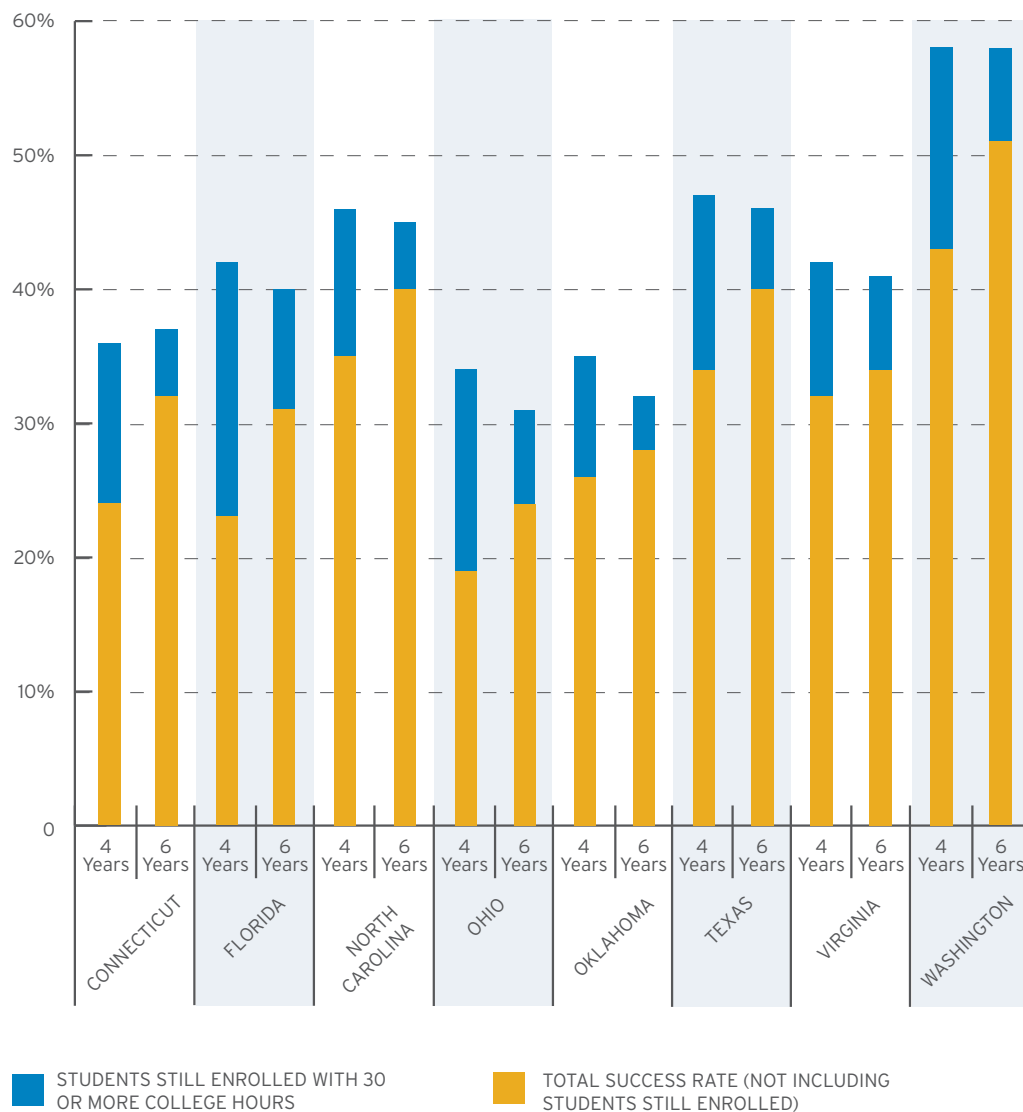
**FIGURE 3**  
**STUDENT PROGRESSION TOWARD COLLEGE-LEVEL COURSES**



## SELECTED HIGHLIGHTS FROM THE DATA

- > For its pilot study, the Cross-State Data Work Group decided that states would collect and report on a metric that included students who were still enrolled in college and had earned 30 or more college credits. Valuable trends emerged from examining this measure. First, students who are still enrolled with 30 or more credits after four years have a good chance of succeeding at six years. In most states, about half the students still enrolled after four years achieve a successful outcome by six years (see *Figure 4*).
- > Florida student data (which were both available and of high quality) suggest that full-time students who earn 24 credit hours in their first year are more likely to succeed than those who earn fewer credits. Twenty-four credits in year one proved to be a significant threshold for success. The second-year threshold was 42 credit hours.
- > The Florida data also indicate that most students who complete developmental education do so within their first two years of enrollment.
- > Nearly 65 percent of college-ready students in Texas complete gatekeeper math by the third year, while only 30 percent of students placing into upper-level developmental math reach this milestone. Fewer than 20 percent of lower-level developmental math students hit that mark.
- > In every state, the cumulative success rate of students increases from the fourth year to the sixth year, ranging from a two-percentage-point increase in Oklahoma and Virginia
- to eight percentage points in Connecticut, Florida, and Washington. (However, additional Data Work Group research concludes that success rates plateau beyond six years; additional completions among those still enrolled are negligible.)
- > Conventional wisdom suggests that older students are more “at risk” and have more difficulty passing 80 percent of attempted hours in the first year. However, in all states but Texas, older students reach this success benchmark at a higher rate than younger students. There is also significant variation among states. For example, over 75 percent of older students meet this benchmark in Washington, compared with Oklahoma, where slightly more than 50 percent hit this mark.

**FIGURE 4**  
**TOTAL STUDENT SUCCESS RATES AND STUDENTS STILL ENROLLED WITH 30 OR MORE COLLEGE HOURS**



## NEXT STEPS: USING DATA TO DRIVE IMPROVEMENT

For the Data Work Group, establishing robust student data systems was the first step toward making the interpretation and application of postsecondary outcome data routine in policymaking. The next step was to establish a limited but universal set of indicators to gauge student and institutional performance and to pinpoint when students are falling off track. A further step is also needed: building and institutionalizing a culture of using data to inform institutional improvement and policymaking. States must embrace intentional strategies to guide the regular and strategic use of data by colleges, their faculty and staff, and state agencies.

States in Achieving the Dream and its Developmental Education Initiative are collaborating to design and implement effective, efficient, and sustainable ways to build and support a culture of using data rigorously. This work is both exploratory and groundbreaking as states test new ways to: make data more visible and transparent; leverage the experience of high-performing institutions; and integrate data into cross-institutional sharing and learning.

- > **Making Data Visible and Transparent:** State data on student outcomes are too often shared in uncoordinated and non-strategic ways, frequently in response to a legislative mandate or accountability requirement and often relying on out-of-date sources. In Achieving the Dream and Developmental Education Initiative states, as well as in other states, institutional and state researchers are seeking to make data more accessible, transparent, and usable, including developing data “dashboards” that summarize and distill complex data in formats that are actionable.
- > **Leveraging the Experience of High-performing Institutions:** In-state comparisons of institutional performance can stimulate and structure honest and important discussions about performance variations—with implications for policy and practice. Comparative analysis, particularly when disaggregated to identify variations in performance of particular student subgroups, can help set benchmarks for current “best-in-class” outcomes that institutions can incorporate into their goal setting and strategic plans.
- > **Integrating Performance Data into Cross-institutional Sharing and Learning:** Achieving the Dream and Developmental Education Initiative states are identifying resources and venues that can be targeted to support a regular process of continuous improvement analysis and planning. These efforts range from institutionalizing the discussion of data in routine meetings of college leaders, to sponsoring annual statewide student success summits, to creating peer-learning networks.

States that take an active role in all three areas will go a long way toward building a culture that supports the rigorous use of data. Much work has been done to improve the collection of data and establish appropriate sets of performance indicators like those presented here. The next frontier in the conversation is learning how to sustain the thoughtful use of data to drive large-scale institutional improvement, identify questions and issues requiring deeper research, and provide a critical source of feedback to inform policy.

**STATES MUST EMBRACE INTENTIONAL STRATEGIES TO GUIDE THE REGULAR AND STRATEGIC USE OF DATA BY COLLEGES, THEIR FACULTY AND STAFF, AND STATE AGENCIES.**

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**THE NEXT FRONTIER IN THE CONVERSATION IS LEARNING HOW TO SUSTAIN THE THOUGHTFUL USE OF DATA TO DRIVE LARGE-SCALE INSTITUTIONAL IMPROVEMENT, IDENTIFY QUESTIONS AND ISSUES REQUIRING DEEPER RESEARCH, AND PROVIDE A CRITICAL SOURCE OF FEEDBACK TO INFORM POLICY.**

## EVOLUTION OF THE CROSS-STATE DATA WORK GROUP

- > The initial work of the Achieving the Dream Cross-State Data Work Group focused squarely on establishing foundational, longitudinal, student data systems. These are prerequisites for any data-driven improvement process.
- > In 2006, the Data Work Group began to establish a more comprehensive and useful set of final outcome measures to gauge community college student success. It created a set of metrics that more fully reflects final outcomes for community college students than the federal reporting measures required of all states.

### **Benchmarks of Student Success: Final Measures**

- » Award of less than an Associate's degree without transfer
  - » Award of an Associate's degree or higher without transfer
  - » Award of less than an Associate's degree and transfer
  - » Award of an Associate's degree or higher and transfer
  - » Transferred without an award
  - » Total success rate (calculated from the other final measures)
- > Next, the Data Work Group took on an additional strategic priority: designing a set of shorter-term measures of student success that correlate with and appear to be predictive of completion or transfer success. These intermediate indicators, influenced by the work of Peter Ewell of the National Center for Higher Education Management Systems, the Community College Research Center, and the

Washington State Board for Community & Technical Colleges, enable states and institutions to track student progress toward meeting critical milestones along the road to college completion.

### **Benchmarks of Student Success: Intermediate Milestones**

#### First-year Student Performance

- » Persisted fall to spring
- » Passed 80 percent or more of attempted credit hours
- » Earned 24 or more credit hours

#### Second-year and Third-year Student Performance

- » Persisted fall to fall
- » Passed developmental math sequence by Year 2
- » Passed gatekeeper English or higher by Year 3
- » Passed gatekeeper math or higher by Year 3
- » Achieved the two-year credit-hour milestone

- > By 2011, the Data Work Group states were collaborating to design and implement effective, efficient, and sustainable ways to build and support a culture of using data rigorously, including testing new ways to: make data more visible and transparent; leverage the experience of high-performing institutions; and integrate data into cross-institutional sharing and learning.

The full working paper of *On the Road to Success* is available at [www.jff.org/publications](http://www.jff.org/publications)

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