

An ACHIEVING THE DREAM Policy Brief



TEST DRIVE:

SIX STATES PILOT BETTER WAYS TO MEASURE AND
COMPARE COMMUNITY COLLEGE PERFORMANCE

JULY 2008

Acknowledgements

The authors would like to thank Dr. Paul Susen from the Connecticut Community Colleges, Cynthia Ferrell from the Texas Higher Education Coordinating Board, and Gretchen Schmidt from the Virginia Community College Association for their participation in telephone interviews to better understand the impact of state policies on student success rates. Special thanks to Jeff Wetherhold of JFF for assistance with phone interviews and the analysis of results.

This policy brief was prepared by Jobs for the Future and the members of the *Achieving the Dream* Cross-State Data Work Group.

Table of Contents

Executive Summary	iii
Introduction	1
Part I. Moving Beyond Three-Year Graduation Rates to Measure Community College Performance	2
<i>Developing a New Approach</i>	2
<i>Rationale for Modifications</i>	3
<i>Limitation of Pilot Testing</i>	6
Part II. Results of Cross-State Analysis of Community College System Outcomes	7
<i>The Cohort Used to Measure Success: Enrollment and Demographic Characteristics</i>	7
<i>Student Outcomes</i>	9
Part III. Impact of State Policy on Outcomes	12
<i>Differences in State Transfer Patterns Reflect Differences in Policy</i>	12
<i>Policies Supporting Success of Adult Students</i>	14
<i>Policies Encouraging Enrollment of Minority Students</i>	15
Part IV. Looking Forward: Next Steps for the Cross-State Data Work Group	16
<i>Developing Intermediate Benchmarks to Track Student Progress</i>	16
<i>Analyzing Performance by Academic Readiness, Income, and Ethnicity</i>	17
<i>Identifying Promising Interventions</i>	17
Part V. Conclusion	18
Appendices	19
<i>Appendix A. Descriptive Data</i>	
<i>Appendix B. Summary of Results on Success</i>	
<i>Appendix C. Supplemental Summary Data on Transfer</i>	
<i>Appendix D. Florida Outcomes, by Enrollment Status and Age</i>	
<i>Appendix E. Six-Year Outcomes, by Age and College Readiness, Florida and Texas</i>	
<i>Appendix F. Methodology for Cross-State Cohort Analysis of Community College System Outcomes</i>	
Endnotes	30



ACHIEVING THE DREAM: COMMUNITY COLLEGES COUNT is a national initiative to help more community college students succeed (earn degrees, earn certificates, or transfer to other institutions to continue their studies). The initiative is particularly concerned about student groups that have faced the most significant barriers to success, including low-income students and students of color. *Achieving the Dream* focuses colleges and others on understanding and making better use of data. It acts on multiple fronts, including efforts at community colleges and in research, public engagement, and public policy. *Achieving the Dream* is funded by Lumina Foundation for Education and 18 other partner foundations.

www.achievingthedream.org



JOBS FOR THE FUTURE

JOBS FOR THE FUTURE creates strategies for educational and economic opportunity. In communities across the country, we develop promising education and labor-market models, expand on-the-ground successes, and shape the policy environment that enables American families and companies to prosper in today's economy.

www.jff.org

About the Authors

This policy brief was prepared by Jobs for the Future and the members of the *Achieving the Dream* Cross-State Data Work Group who spent countless hours analyzing data and testing preliminary measures to arrive at a comprehensive and valid set of success measures. Work Group members also contributed rich descriptions of their states' policy context, and they reviewed and edited several drafts of the document. The members of the Work Group who coauthored the report are: Gabriela Borcoman, Ph.D., Senior Program Director, Planning and Accountability, Texas Higher Education Coordinating Board; J. Keith Brown, Associate Vice President for Research and Performance Management, North Carolina Community College System; Nancy Copa, Research and Evaluation Coordinator, Florida Department of Education, Division of Community Colleges; Corby A. Coperthwaite, Ph.D., Director of Planning, Research and Assessment, Connecticut Community Colleges; Donna Jovanovich, Ph.D., Director of Institutional Effectiveness, Virginia Community College System; Pat Windham, Ph.D., Associate Vice Chancellor for Evaluation, Florida Department of Education, Division of Community Colleges; and Soyoung Yim, Ed.D., Coordinator of Research Projects, North Carolina Community College System.

Susan Goldberger, Ph.D., of JFF and consultant Carol Gerwin served as primary writers for the report, with assistance from Vickie Choitz of JFF.

Test Drive:

Six States Pilot Better Ways to Measure and Compare Community College Performance

Executive Summary

Community colleges offer broad access to postsecondary education through open admissions and more affordable and flexible programs of study. Unfortunately, improved access has not translated into higher levels of college completion, particularly for low-income students, students of color, and others who traditionally have not fared well in college. In the past 20 years, according to OECD statistics, the United States has dropped from first to tenth in the world in the percent of young adults, aged 25-34, with an Associate's degree or higher.

Faced with burgeoning enrollments and stagnating completion rates, states have a growing interest in strengthening their community college data and performance measurement systems to better track student progress and success. Since 2006, six states in the *Achieving the Dream: Community Colleges Count* initiative—Connecticut, Florida, North Carolina, Ohio, Texas, and Virginia—have taken on this challenge of crafting new intermediate and final measures of student progress. These states have worked together to design a more complete and accurate way of measuring student performance over time and comparing results to others nationwide.

The six-state Data Work Group began the process by addressing the limitation of the current federal approach to measuring community college performance. The current federal method for evaluating the performance of the

nation's colleges amounts to a single, simple question: how many students have earned a degree or certificate in a certain amount of time? Each year, the federal Graduation Rate Survey asks colleges to report the number of full-time, first-time undergraduates who have completed a degree or certificate within 150 percent of the “normal time” to completion. For students at four-year colleges, this is six years. Community college students enrolled in Associate's degree programs have three years.

For community colleges, the federal method is too simplistic. One significant limitation is that it does not track outcomes for part-time students, even though large proportions of community college students start their postsecondary education part time, as they juggle the demands of school, work, and family. Another major limitation is that the federal approach defines success in only one way—earning a degree or certificate. This is despite the fact that an important part of the mission of many community colleges is transferring students to four-year institutions, so they may pursue a Bachelor's degree, whether or not they have completed an earlier credential. In addition, the three-year time limit the federal government allows students to achieve a successful outcome is not long enough for many community college students, especially for those whose enrollment patterns fluctuate due to work and family obligations.

Designing a New Approach to Measuring Performance

To address these limitations, the Work Group made several important modifications to the current federal method of measuring community college performance and carefully tested the new measures to assess their accuracy (*see table*).

Among the most significant changes were: extending the time frame for tracking student outcomes from three years after initial enrollment to six years; tracking the performance of students who initially enrolled in college part time; and expanding the list of successful outcomes to include transfer to a four-year institution, as well as having made substantial progress toward a degree by a student's sixth year.

The Work Group's pilot testing demonstrated that this more nuanced approach to defining and measuring student success yielded more accurate and useful information about our nation's community colleges. Extending the time frame for tracking student outcomes was one of the most important modifications. Increasing the time frame from three to six years resulted

in a substantial increase in student success rates, particularly for part-time students and those who started in developmental education. For example, in Florida the rate for students who began full time nearly doubled—from 19 percent to 35 percent. For students who began part time, graduation rates nearly tripled—from 7 percent to 20 percent.

Not all of the Work Group's methodological changes resulted in higher success rates. Including part-time students in the analysis actually lowered the success rates of community college systems. But the six Work Group states still preferred this method; the data were more accurate and therefore more valuable in analyzing and comparing institutional performance, particularly for some of their most vulnerable students.

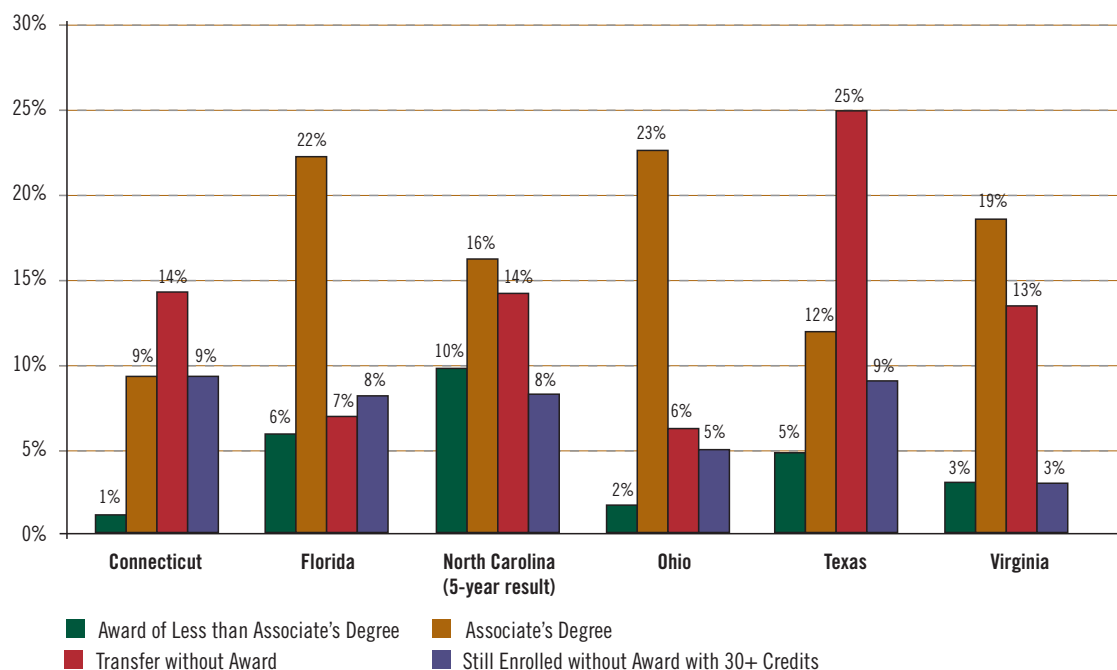
Results of Testing Process and Policy Implications

To test the modifications to the traditional performance measurement system, the Work Group used data from each state's community college system. Each state tracked all first-time community college students (full-time and part-time) for

COMPARING COMMUNITY COLLEGE PERFORMANCE MEASURES

	Current Federal Method	Achieving the Dream State Work Group Method
Prior enrollment	First-time-in-college students only	Same as federal method
Intent at time of enrollment	Only students seeking a certificate or degree	Same as federal method
Enrollment status	Full-time students only	Full-time and part-time students
Successful outcomes	Earned degree or certificate	<ul style="list-style-type: none"> - Earned degree or certificate (with or without transfer) - Transferred without award - Enrolled in year six with at least 30 college credit hours
Time frame	Three years (150% of "normal time" to completion)	Six years
Tracking students who transfer within two-year-college sector	Reporting is based on individual colleges; does not track outcomes of students who transfer to another college; colleges report them simply as "transferred out"	Reporting is based on statewide community college system; tracks outcomes of students within the system (and therefore across community colleges)
Controlling for factors associated with different likelihoods of success	Part-time students excluded from analysis; no disaggregation of results by age at initial enrollment	Disaggregated results by part-time and full-time status and age at initial enrollment

STUDENT SUCCESS RATES USING STATE WORK GROUP METHOD



six years from their date of entry. (The only exception was North Carolina, which had only five years of data for this analysis.) As with the federal method, the states included only those students who were seeking a certificate or degree.

The six states examined the outcomes achieved by all students and then by student subgroups disaggregated by age and enrollment status. The percentage of students who achieved a successful outcome within six years—earning an award, transferring to a four-year institution, or remaining enrolled with at least 30 credits—ranged from 33 percent in Connecticut to 51 percent in Texas (*see figure*).

Other findings from the analysis included substantially higher success rates for full-time and younger students and significant differences in transfer patterns and rate among states.

A comparative analysis of the pilot test results demonstrated the many critical ways that state policy can drive outcomes for community college students. For example, significant differences among Work Group states in rates of

transfer to four-year colleges and in the rates of students who transfer with or without an Associate's degree reflected important differences in each state's higher education policies and in the role of community colleges in that state's postsecondary system.

The Cross-State Data Work Group plans to continue to refine its approach to measuring community college performance, expanding its analysis to include more recent cohorts of entering students in order to track changes in system performance over time. Several other *Achieving the Dream* states will be joining the Work Group and participating in this ongoing comparative analysis. In addition, the Work Group has identified several other priorities to help states use longitudinal data to improve community college outcomes. These include: developing intermediate benchmarks to help determine whether students early in their college careers are on track toward a successful outcome; analyzing the performance of different student subgroups; and assessing the benefits of various interventions to help increase success rates.

Test Drive:

Six States Pilot Better Ways to Measure and Compare Community College Performance

Community colleges offer broad access to postsecondary education through open admissions and more affordable and flexible programs of study. Unfortunately, improved access has not translated into higher levels of college completion, particularly for low-income students, students of color, and others who traditionally have not fared well in college. In the past 20 years, the United States has dropped from first to tenth in the world in the percent of young adults, aged 25-34, with an associate's degree or higher.¹

Faced with burgeoning enrollments and stagnating completion rates, states have a growing interest in strengthening their community college data and performance measurement systems to better track student progress and success. Since 2006, six states—Connecticut, Florida, North Carolina, Ohio, Texas, and Virginia—have worked together to design more effective tools to assess student performance over time and compare results to others nationwide. These states are members of *Achieving the Dream: Community Colleges Count* and founding members of its Cross-State Data Work Group.

These states have been testing and refining new intermediate and final measures of student progress in order to:

- Track student performance in achieving key milestones associated with degree completion;
- Identify at-risk students early in their college careers in order to provide the supports they need to stay in school and graduate;
- Evaluate the effectiveness of state policy and institutional interventions to raise success rates; and

- Learn from the strengths of other community college systems.

Test Drive reports on the work of these states in testing new methods for measuring and comparing community college system performance in achieving successful student outcomes. The results of pilot testing conducted by the *Achieving the Dream* Cross-State Data Work Group show that a more nuanced approach to defining and measuring student success yields more accurate and useful information about our nation's community colleges than the current federal reporting requirements.

This policy brief:

- Describes the new, more comprehensive approach to community college performance measurement and explains its strengths compared to the federal system;
- Highlights key findings of the pilot testing process and the links between state policies and the results achieved by different community college systems; and
- Identifies the work group's priorities for further refining the performance measures and continuing to improve the capacities of states to track and increase student success rates.

ACHIEVING THE DREAM: COMMUNITY COLLEGES COUNT is a national initiative to help more community college students succeed, in terms of earning degrees, earning certificates, or transferring to other institutions to continue their studies. Funded by Lumina Foundation for Education and 18 other foundation partners, *Achieving the Dream* focuses colleges and others on understanding and making better use of data to achieve this goal.

Part I. Moving Beyond Three-Year Graduation Rates to Measure Community College Performance

One of the first goals of the Achieving the Dream Cross-State Data Work Group was to develop new community college performance measures that would address the limitations of the current federal approach.

The federal government currently measures the performance of community colleges the same way it measures the performance of four-year colleges. Each year, the national Graduation Rate Survey asks all colleges to report the number of full-time, first-time undergraduate students who have earned a degree or certificate within 150 percent of the “normal time” to completion. For students at four-year colleges, this is six years; for community college students enrolled in Associate’s degree programs, the time frame is three years. The government uses these data to compare the performance of all postsecondary institutions. Prospective students use this information to help select a college.

Unfortunately, the approach used to measure four-year institutions has serious limitations when applied to community colleges. The result is an incomplete and inaccurate picture of community college performance. For example, the survey does not track outcomes for part-time students, even though large proportions of community college students start their postsecondary education part time, as they juggle the demands of school, work, and family. Among states participating in this study, part-time students account for one-third to one-half of initial enrollments. For states interested in evaluating their community colleges and helping them improve performance, understanding the achievement these students is vital.

Another limitation of the federal Graduation Rate Survey is that it does not count transfer to a four-year institution as a successful outcome, even though moving up to, and succeeding in, a four-year college is an important part of the mission of many community colleges nationwide.

Developing a New Approach

One of the first goals of the *Achieving the Dream* Cross-State Data Work Group was to develop new community college performance measures that would address the limitations of the current federal approach. The group made several important modifications to the federal method and carefully tested the new measures to determine if they would provide a more accurate assessment (see Table 1). These modifications:

- Expanded the tracking of performance to students who initially enrolled in college part time;
- Extended the time frame for tracking student outcomes from three years after initial enrollment to six years;
- Expanded the definition of successful outcomes to include students who transferred to a four-year institution prior to earning an award and students who were still enrolled and making substantial progress towards a degree after six years (i.e., they had earned one year or more of college credits by the end of their sixth year);
- Examined the performance of younger and older students separately—as well as the performance of part-time and full-time students within these age groups—to allow for comparisons of institutions with different demographic profiles; and
- Included final outcome data for students who transfer from one community college to another community college in the same state.

While the *Achieving the Dream* Work Group made several changes to the federal performance measures, it also retained some key elements. The group looked only at the performance of students who were entering a community college for the first time. In addition, the analysis was limited to students who were seeking a certificate or degree. As with the federal approach, the study excluded students who enrolled simply to take personal enrichment or job-related training classes but had no intention of earning an award.

Rationale for Modifications

Extending the time frame for tracking student outcomes was one of the most important modifications the Work Group made. The pilot testing process showed that when the time frame for tracking student outcomes increased from three to six years, graduation rates for students who began full time were substantially higher. For example, in Florida the rate for students who began full time nearly doubled—from 19 percent to 35 percent. For students who began

part time, graduation rates nearly tripled—from 7 percent to 19 percent (*see Table 2 and Appendix D, Tables 1 and 2*).

It turned out that, in the pilot testing states, three years simply was not enough time for many community college students to earn awards. This was particularly true for those who started out in developmental education and needed additional time to gain the foundation skills needed for college-level work. It was also true for the many community college students who balance work and family obligations with their studies, switching back and forth between part-time and full-time enrollment as their personal and professional schedules allow, but still often obtaining degrees over time.

Expanding the federal definition of a successful outcome to include students who transferred to a four-year institution prior to earning an award was another modification that yielded a more complete and often more positive picture of community college system performance. Given the important transfer mission of community

The pilot testing process showed that when the time frame for tracking student outcomes increased from three to six years, graduation rates for students who began full time were substantially higher.

TABLE 1. COMPARING COMMUNITY COLLEGE PERFORMANCE MEASURES

	Current Federal Method	Achieving the Dream State Work Group Method
Prior enrollment	First-time-in-college students only	Same as federal method
Intent at time of enrollment	Only students seeking a certificate or degree	Same as federal method
Enrollment status	Full-time students only	Full-time and part-time students
Successful outcomes	Earned degree or certificate	<ul style="list-style-type: none"> - Earned degree or certificate (with or without transfer) - Transferred without award - Enrolled in year six with at least 30 college credit hours
Time frame	Three years (150% of “normal time” to completion)	Six years
Tracking students who transfer within two-year-college sector	Reporting is based on individual colleges; does not track outcomes of students who transfer to another college; colleges report them simply as “transferred out”	Reporting is based on statewide community college system; tracks outcomes of students within the system (and therefore across community colleges)
Controlling for factors associated with different likelihoods of success	Part-time students excluded from analysis; no disaggregation of results by age at initial enrollment	Disaggregated results by part-time and full-time status and age at initial enrollment

The Work Group method captured students who attend more than one institution and their outcomes by tracking the progress of students through each state's community college system, regardless of how many community colleges they attended during the six years.

TABLE 2. COMPARISON OF THREE-YEAR AND SIX-YEAR GRADUATION RATES IN FLORIDA

Florida Data	Earned an Award (i.e., graduation rate)	Transferred without an Award	Total Success
Three-Year Outcomes (fall 1999 to spring 2002)			
Full-time Students	19%	2%	21%
Part-time Students	7%	1%	8%
Six-Year Outcomes (fall 1999 to spring 2005)			
Full-time Students	35%	8%	43%
Part-time Students	19%	6%	26%*

* Percentages may not add to total due to rounding

colleges, this omission in the federal approach significantly understates the success of community colleges and fails to provide important information to policymakers and students about system and institution performance.

In the case of Texas, for example, the failure to measure transfers to four-year institutions distorts the performance picture for the entire state. Texas state policy strongly encourages students to transfer after completing a general education core curriculum. As a result, a much higher percentage of Texas community college students transfer before earning an award than students in other states. Some 25 percent of Texas students who entered community college in 1999 transferred to a four-year institution before completing an award (*see Appendix B*). The transfer rates for the other five states participating in the pilot ranged from 6 percent to 14 percent.

Texas's high transfer rates are counterbalanced with lower-than-average degree completion rates. Only 17 percent of Texas's 1999 entering students stayed to complete an Associate's degree or certificate within six years, the sec-

ond-lowest award completion rate among the six states participating in the pilot analysis. Based on the federal method, which only counts award completion rates as success, Texas community colleges would be at the lower end of the performance scale among state systems. Expanding the definition of success to include students who transfer to a four-year institution prior to earning an award paints a more accurate and positive picture of the performance of the Texas community college system.

The methodology adopted by the Work Group also solved another important transfer-student data problem. The federal method fails to track the final outcomes of students who start at one community college and transfer to another community college to complete their studies. This is because the federal method requires an individual college to track the outcomes of students only while they are enrolled in that institution. Once a student leaves his or her first college, that student is no longer followed. Given the large number of community college students who attend more than one institution in their educational career, it is important to include these individuals.² The Work Group method captured these students and their outcomes by tracking the progress of students through each state's community college system, regardless of how many community colleges they attended during the six years.

Another significant change the Work Group made to the federal method was broadening the criteria for success. In addition to counting students who earned a degree or certificate, the Work Group decided to include as successful outcomes students who were still enrolled in their sixth year with 30 or more credit hours. The thinking was that for students who had completed at least half of the course requirements toward a degree (i.e., 30 credits) and were still enrolled, there was a good chance that they would persist and eventually earn a degree or transfer to a four-year institution. Analysis verified this hypothesis. Several states looked at what happened to these students by the end of their eighth year after entering community college and found that 25 percent to 50 percent had earned an award or transferred to a four-year institution.

In contrast to extending the time frame for tracking students and broadening the definition of success, modifying the federal approach to include part-time students lowered rather than raised the success rates of community college systems. A significant number of award-seeking community college students begin their college careers part time—as many as 36 percent to 49 percent of students in the states in this study (see *Appendix A*). In addition, a disproportionate number of low-income students attend part time. Excluding part-time students from the analysis would render invisible this important population subgroup, for whom a community college degree can be crucial to future job growth and earnings.

Expanding the analysis to include students who initially enrolled on a part-time basis required the Work Group to come up with a way to control for the well-documented differences in the performance of part-time and full-time students. This was necessary in order to make fair comparisons among states and among colleges with different percentages of part-time enrollment. The current federal method controls for this dif-

ference in part-time and full-time student performance by eliminating part-time students from the analysis altogether. The Work Group controlled for the impact of initial enrollment status by looking at the performance of full-time and part-time students separately, as well as together.

The pilot testing also controlled for another important factor associated with success rates—age at entry to college. This is because younger, traditional-age students generally achieve higher success rates than older students.

Disaggregating the results by age allowed for more useful comparisons of state and institutional performance than the current federal approach, which does not include any control for differences in the age mix served by different states and institutions. For example, the North Carolina Community College System not only had a significantly higher proportion of older students than the other five states in the pilot analysis, but also achieved substantially higher graduation and transfer rates with these students than other states. This is an important and potentially useful story that other states can learn from. Disaggregating the data by age also showed that while Ohio lagged behind several of the states in the completion rates of its older students, it was second among the six states in the percentage of traditional-age students earning a degree or award.

A significant number of award-seeking community college students begin part time—as many as 36 percent to 49 percent of students in each state in this study.

Limitation of Pilot Testing

The new performance measures developed by the Work Group had one significant limitation. It was not possible to disaggregate analysis of student performance based on the factor that research has found to be the most significant predictor of college success: the academic readiness of incoming students. Given the disproportionate number of low-income students who enter community college needing remedial coursework, measuring the performance of developmental education students and using this analysis to inform strategies to increase success rates is critical to improvement efforts.

The states agreed that disaggregating students by their math, writing, and reading placement test scores would be the most accurate way to classify students by their level of developmental need. Unfortunately, only Florida and Texas had placement test data for the pilot cohorts.³

Given this limitation, the states in the Work Group decided to substitute student enrollment in developmental education as an indicator of a student's academic readiness for college-level coursework. Unfortunately, this proved not to be a valid proxy. A substantial percentage of students who tested into developmental education failed to enroll in developmental coursework, and were therefore misclassified as "college ready." This misclassification ended up significantly understating the performance of students who were college ready. In the case of one state, Connecticut, the distorted effect of using developmental coursework enrollment data instead of placement test scores was so substantial that students classified as "college ready" based on non-enrollment in developmental education courses had a substantially lower success rate than developmental education students.



Part II. Results of Cross-State Analysis of Community College System Outcomes

After agreeing on the design of the new performance measures, the Cross-State Data Work Group tested the methods using data from each state’s community college system. This analysis compared the key demographic characteristics of each state’s entering student cohort and the outcomes students achieved.

The Cohort Used to Measure Success: Enrollment and Demographic Characteristics

Each state tracked all first-time community college students (full time and part time) for six years from their date of entry.⁴ As with the federal method, the states included only those students who were seeking a certificate or degree. Most states analyzed the cohort of award-seeking students who entered college for the first time in 1999. For data quality reasons, Connecticut used its 2000 cohort and North Carolina used its 2001 cohort.

To determine which students were seeking awards and should be included in the analysis, the states used data collected from colleges during the initial registration or enrollment process. Most states based their classification on the program of study a student selected at registration. Students who selected a certificate, diploma, or Associate’s degree program of study were classified as award-seeking students (see Appendix F for a detailed description of methodology). Award-seekers comprised the large majority of entering students in all six states. The rates ranged from 60 percent in Connecticut to 80 percent in Florida (see Appendix A).

The first part of the analysis conducted by the six states focused on the enrollment and demo-

graphic characteristics of their first-time-in-college, award-seeking cohort. The questions included: What percentage of these students were enrolling full time versus part time? What was the age distribution of first-time students? What percentage of students were from ethnic groups underrepresented in higher education? How did these characteristics vary by state? (Appendix A provides baseline data on the cohort of students in this analysis.)

Full-time versus Part-time Enrollment

Full-time students constituted the majority of enrollments in all states. The rate varied from 51 percent in Texas to 64 percent in Ohio and Virginia (see Figure 1).

Age Distribution of Entering Students

The states’ student populations had similar age profiles. About 75 percent of entering students in most states were traditional-age students of 22 or under. The exceptions were North

Each state tracked all first-time community college students (full time and part time) for six years from their date of entry, including only those students who were seeking a certificate or degree.

FIGURE 1. ENROLLMENT STATUS OF ENTERING STUDENTS

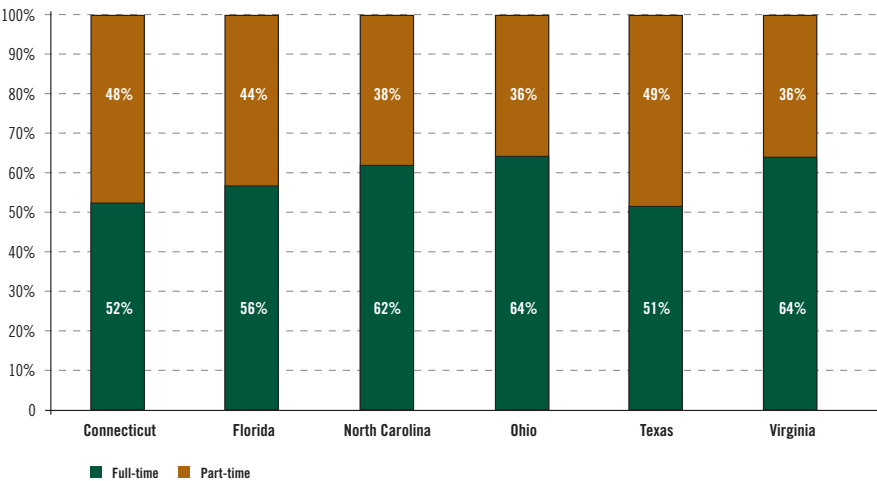


FIGURE 2. AGE DISTRIBUTION OF ENTERING STUDENTS

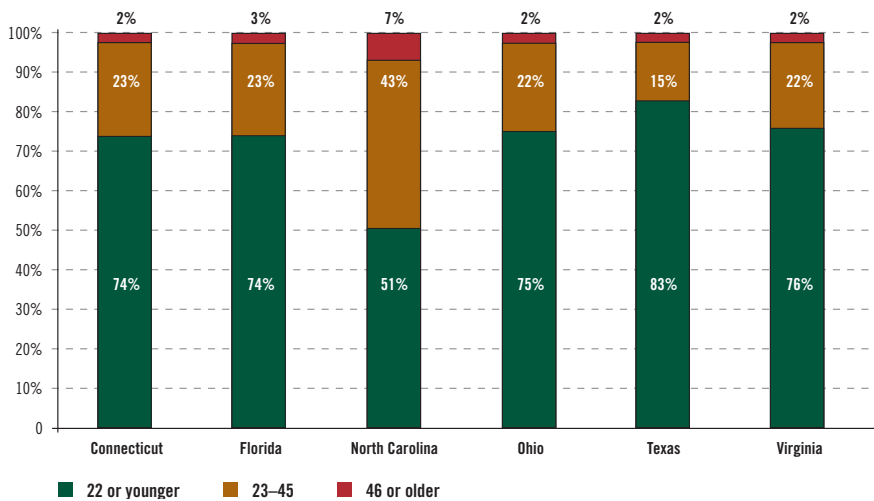


FIGURE 3. RACIAL AND ETHNIC DISTRIBUTION OF ENTERING STUDENTS

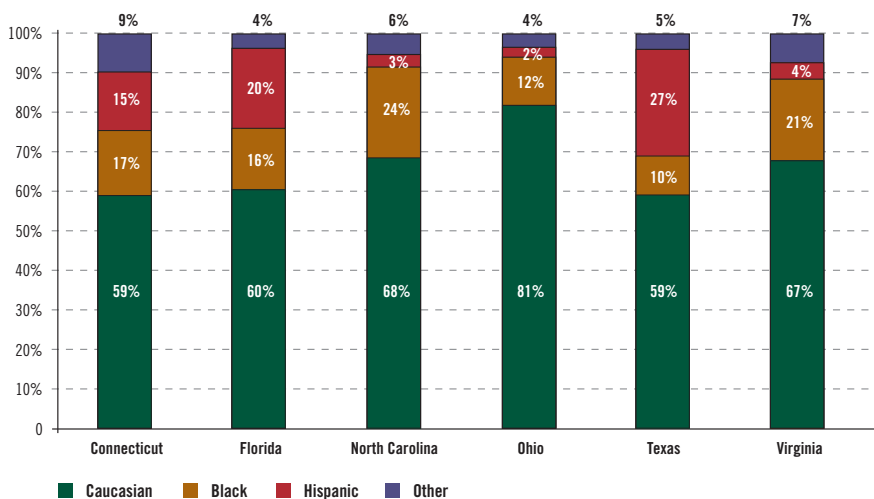
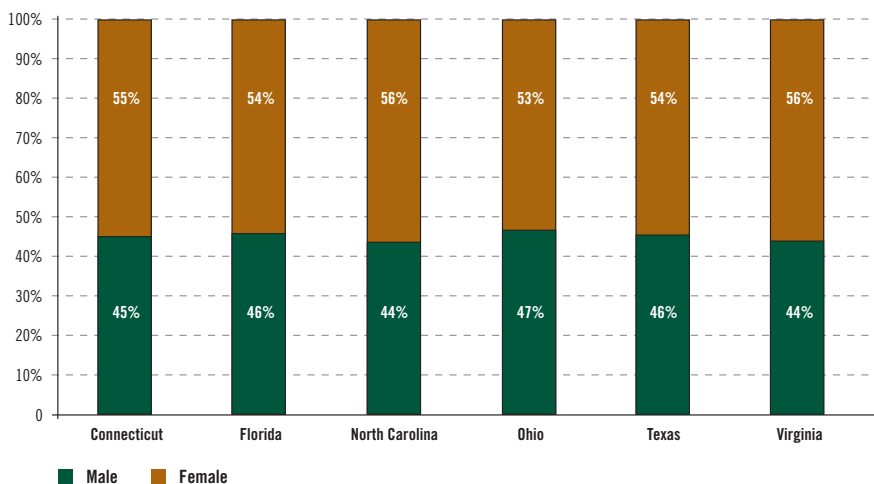


FIGURE 4. GENDER DISTRIBUTION OF ENTERING STUDENTS



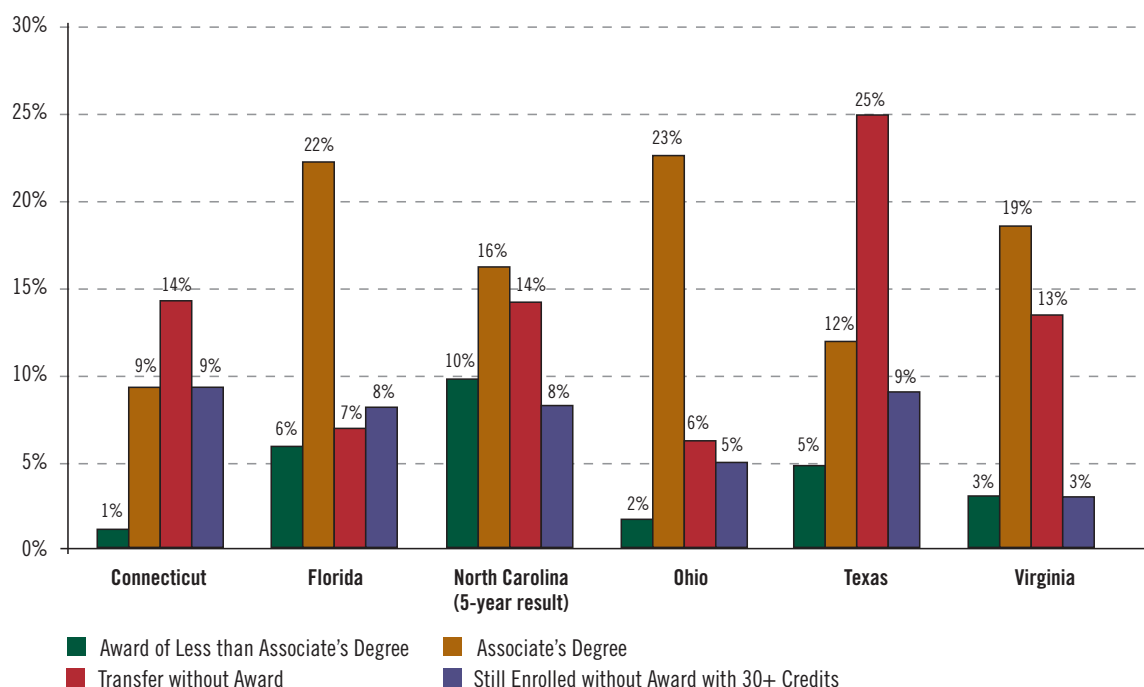
Carolina, which had significantly older students, and Texas, which had younger students. In North Carolina, almost 50 percent of all community college students were over age 22, a fact not explained by the demographics of the general population. In Texas, 83 percent of community college students are 22 or younger, which is explained partially by the state's relatively high number of young people in the general population (*see Figure 2*).

Ethnic and Gender Distribution

The states had significant differences in overall minority enrollment and in enrollment of different minority groups. Ohio had the lowest overall minority enrollment at 19 percent, while Connecticut and Texas had the highest minority enrollment at 41 percent. African-American enrollment varied from 10 percent in Texas to 24 percent in North Carolina. Hispanic enrollment was very low in three states—Ohio (2 percent), North Carolina (3 percent), and Virginia (4 percent)—and high in three states—Connecticut (15 percent), Florida (20 percent), and Texas (27 percent) (*see Figure 3*).

To measure the relative representation of minority students in community colleges, the percentage of entering students who were African-American and Hispanic was compared to the corresponding percentage of these groups in the state's population. For instance, if 15 percent of entering community college students were African-American, and African Americans made up 10 percent of the state's population, then the ratio would be 1.5. Using this measure, African-Americans were overrepresented or evenly represented in community colleges in five of six states, with ratios ranging from 1.67 in Connecticut to 1.00 in Ohio. African-Americans were underrepresented in Texas at 0.84. Hispanics were overrepresented in community colleges in Connecticut at 1.34 and evenly represented in Florida at 0.99. They were underrepresented in the four other states, with results ranging from 0.45 in North Carolina to 0.87 in Ohio.

FIGURE 5A. STUDENT SUCCESS RATES USING STATE WORK GROUP METHOD



A slight majority of students in all states were female, reflecting national trends of higher female enrollment in higher education (*see Figure 4*).

Student Outcomes

The main part of the analysis focused on outcomes achieved by students within six years of initial enrollment in community college. Students who achieved one of the following outcomes within six years of their initial enrollment were counted as successful:

- Earned an Associate's degree—with or without transfer to a four-year institution;
- Earned an award of less than an Associate's degree—with or without transfer to a four-year institution;
- Transferred to a four-year institution without earning an award; and
- Still enrolled in their sixth year (either fall, spring, or summer semester) with at least 30 credits earned.

FIGURE 5B. STUDENTS WHO EARNED AN AWARD OR TRANSFERRED OR WERE STILL ENROLLED WITH 30+ CREDITS

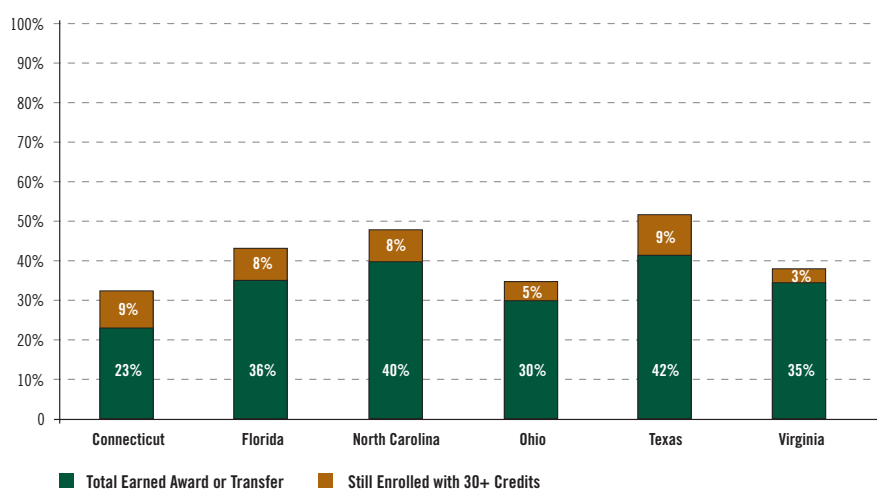


FIGURE 6. SUCCESS RATE BY FULL-TIME/PART-TIME ENROLLMENT

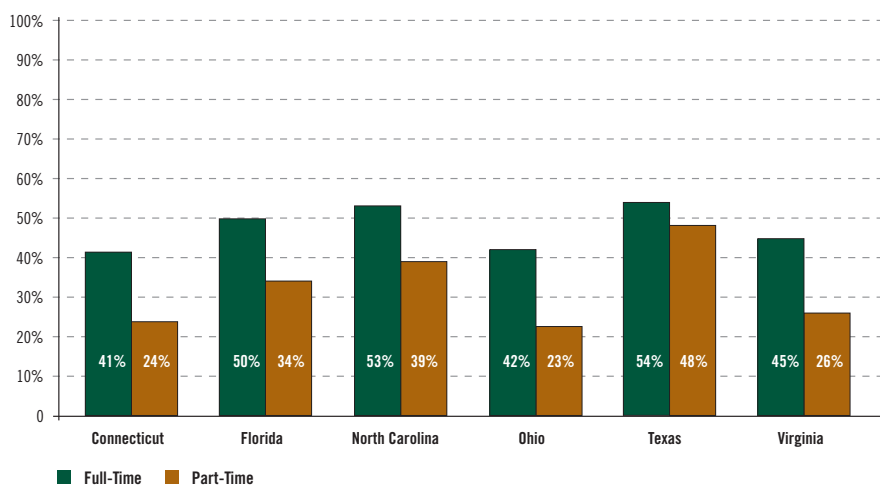
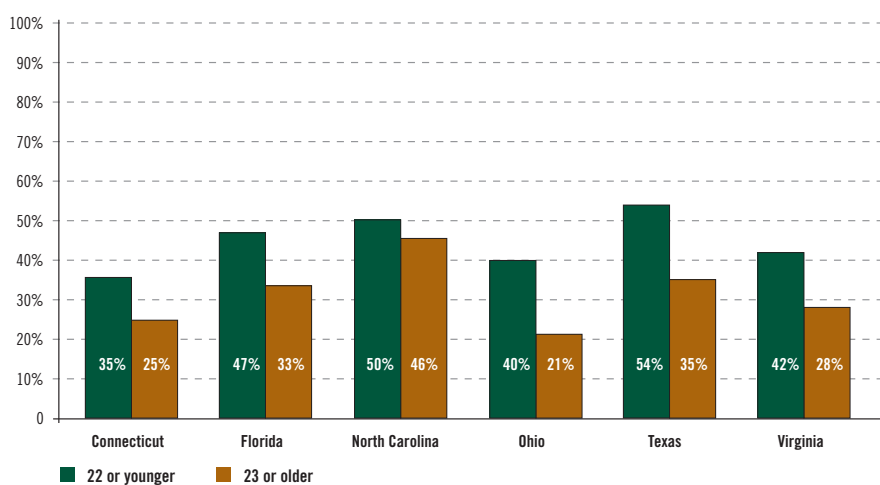


FIGURE 7. SUCCESS RATE BY AGE GROUP



The six states examined the outcomes achieved by all students and then by student subgroups disaggregated by age and enrollment status to control for the effects of these characteristics.

Overall Success Rates: Three Distinct Patterns

The percentage of students who achieved a successful outcome within six years ranged from 33 percent in Connecticut to 51 percent in Texas (see Appendix B).

Three distinct patterns of student outcomes emerged related to the percentage of students who stayed in community college through completion of a degree or certificate versus those who transferred to a four-year institution before completing an award. In Connecticut and Texas, there were substantially more students who transferred without having earned an award than there were award earners. That pattern was reversed in Florida and Ohio, where there were substantially more award earners than students who transferred without having earned an award. In a third set of states—North Carolina and Virginia—there were only slightly more award earners than students who transferred without having earned an award. In addition, North Carolina had the highest rate of certificate conferral at 10 percent. Virginia and Ohio had the lowest rates of students still enrolled in year six with at least 30 credits. Figure 5A shows the success rates of all students in each of the Work Group’s categories of success. Figure 5B is based on the same data, but aggregates those who earned an award and/or transferred in order to compare this group to the group still enrolled with 30 or more credits.

Success Rates by Initial Enrollment Status

Full-time students were more likely to attain successful outcomes than part-time students. In five of the six states, there was a difference of at least 14 percentage points between the success rates of the two groups. The exception was Texas, where full-time and part-time students

had similar rates of success, 54 percent of full-time students and 48 percent of part-time students (see Figure 6 and Appendix B).

Success Rates by Age

Younger students were more likely to attain successful outcomes than older students. In five of the six states, there was a difference of at least 10 percentage points between the success rates of students under age 22 and students aged 23 to 45. The exception was North Carolina, where both age groups had a high frequency of attaining successful outcomes—including 46 percent of older students, significantly more than in any other state. North Carolina not only served a much higher proportion of older students than the other five states, but it also achieved a substantially higher graduation and transfer rate with those students (see Figure 7, Appendix C, Tables 2 and 3).

Percentage of Award Earners Who Subsequently Transfer

There were significant differences among the states in the percent of award-earning students who later transferred to four-year colleges. Transfer rates for full-time Associate's degree earners varied from a low of 22 percent in Ohio to a high of 72 percent in Florida. Transfer rates for part-time Associate's degree earners varied from a low of 23 percent in Ohio to a high of 59 percent in Florida. The percentage of certificate earners who later transferred in each state was significantly lower than the percentage of degree earners who transferred. This was expected, given that certificates are terminal awards, designating the attainment of skills and knowledge required for certain jobs; they are not designed for transferring academic credits for students to continue their studies at other institutions (see Figures 8A, 8B, and 8C and Appendix C).

FIGURE 8A. PERCENTAGE OF STUDENTS EARNING AN AWARD WHO SUBSEQUENTLY TRANSFERRED TO A 4-YEAR INSTITUTION (FULL-TIME STUDENTS)

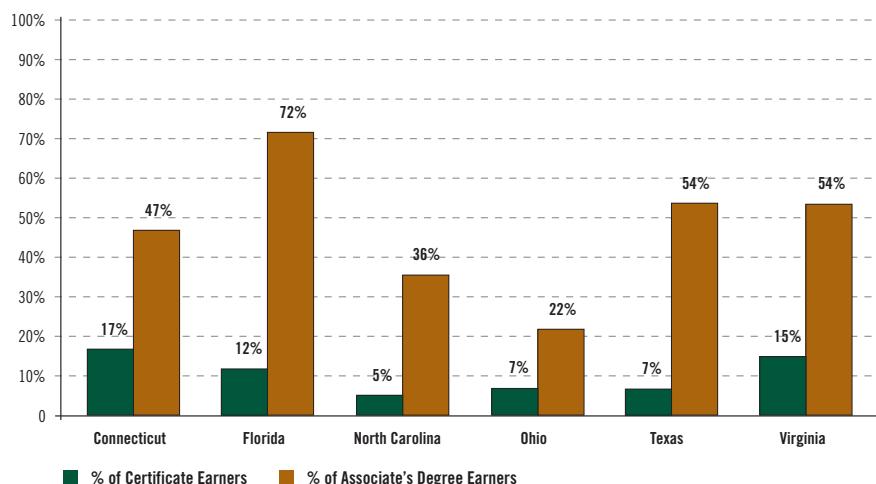


FIGURE 8B. PERCENTAGE OF STUDENTS EARNING AN AWARD WHO SUBSEQUENTLY TRANSFERRED TO A 4-YEAR INSTITUTION (PART-TIME STUDENTS)

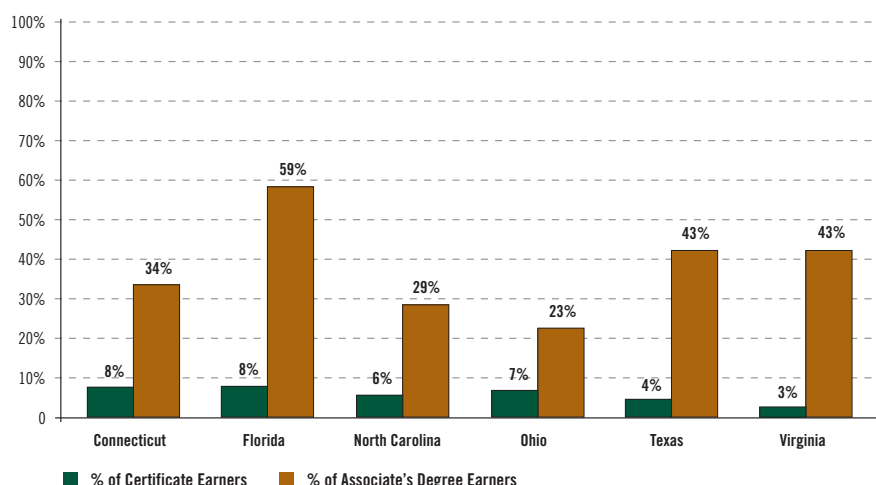
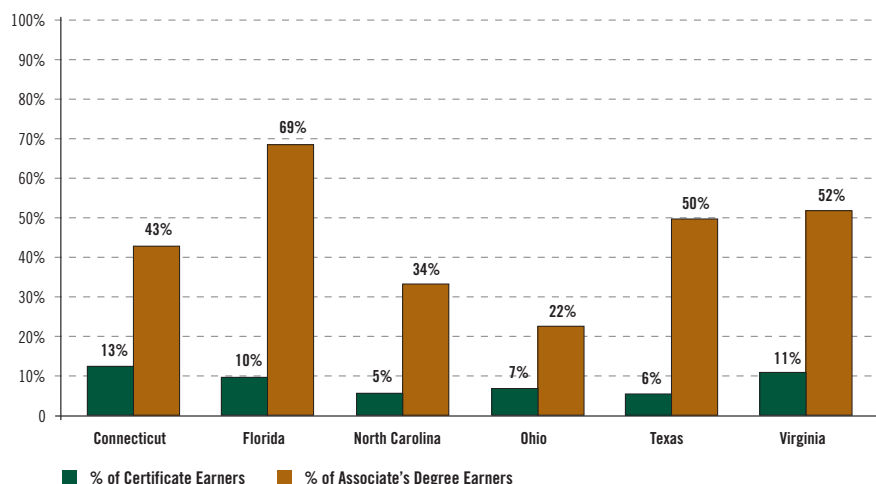


FIGURE 8C. PERCENTAGE OF STUDENTS EARNING AN AWARD WHO SUBSEQUENTLY TRANSFERRED TO A 4-YEAR INSTITUTION (FULL- AND PART-TIME STUDENTS)



Part III. Impact of State Policy on Outcomes

In states that make transfer relatively easy, many more students transfer to four-year institutions to continue their studies.

The results of the Cross-State Data Work Group's pilot testing of new performance measures demonstrate the many critical ways that state policy can drive outcomes for community college students. For example, in states that make transfer relatively easy, many more students transfer to four-year institutions to continue their studies. In states with an historical mission to serve older students, more older students enroll and achieve success.

This section of *Test Drive* examines the relationship between state policy and the different patterns observed among the states regarding the percentage of:

- Community college students who transfer to a four-year institution and the timing of that transfer;
- Older, award-seeking students enrolling in a state's community college system and the success rate achieved by these students; and
- African-American and Hispanic students compared to the percentage of these groups in the general population.



Differences in State Transfer Patterns Reflect Differences in Policy

The significant differences among the Work Group states in transfer rates and in the rates of students who transfer with or without an Associate's degree reflect important differences in each state's higher education policies and in the role of community colleges in that state's postsecondary system.

Encouraging Transfer After Earning Degree

Of the six states, Florida had the highest rate of community college students who transferred to a four-year college after earning an Associate's degree (69 percent) and the second lowest rate of students who transferred prior to earning an award (7 percent) (*see Appendix B and Appendix C*). Florida also had a relatively high rate (22 percent) of Associate's degree earners. There are several state policies working together in Florida to encourage community college students to earn a degree before transferring. First, Florida has a longstanding statutorily required statewide articulation agreement that makes the transfer process very easy for students who have earned a degree.⁵ The agreement guarantees admission as juniors into the state university system for any community college graduate who has earned an Associate of Arts degree. (The exceptions are limited-access and teacher certification programs.) Students do not necessarily get their top choice of school or their choice of major. However, many private colleges also participate in the agreement.

Another factor that has served to boost the transfer rate and dramatically increase access to four-year institutions is that Florida's community colleges offer Bachelor's and advanced-degree programs on site. Last year, Florida community colleges offered 464 Bachelor's, Master's, doctoral, and special degree programs from public and private colleges located both within and outside the state. About 83 percent of these programs were offered entirely on the community college campus, so students could complete the entire program on site. State policy requires the four-year institutions to form a real presence on a community college campus, offering student advising in addition to academic programs. About 23,000 students participate. Florida has further encouraged access to four-year institutions by expanding the number of branch campuses throughout the state and by allowing community colleges to seek approval to offer their own Bachelor's degrees in teaching, nursing, and applied sciences.

Encouraging Transfer Without Degree

In Texas, the high percentage of students who transfer to four-year colleges prior to earning an award (25 percent) can be attributed to a state policy that strongly encourages transfer right after completion of an academic core (*see Appendix B*). There is no incentive to earn an Associate's degree. The Texas Higher Education Coordinating Board has supported the development of a core general education transfer curriculum of 42 to 48 credits at all of its community colleges. Rather than adopting a single, standardized core curriculum for the entire community college system, the Coordinating Board grants colleges some flexibility in core design, and it grants students some flexibility in course selection. However, each college's core must be approved by the Coordinating Board. Students who complete an approved core curriculum are guaranteed transfer of all 42 to 48

general education credits to any four-year university in the state. The universities are required to accept the credits as meeting their general education requirements, even if their requirements differ from those of the sending community college. However, any credits a community college student earns outside the core curriculum must be evaluated for transfer potential on a case-by-case basis. In addition, students who transfer prior to completing the community college core curriculum must complete the requirements of the four-year college once they arrive.

To ensure that students are aware of these transfer opportunities and how to take advantage of them, Texas has developed a strong community college counseling system that educates students about the core before they enroll and during matriculation. College advisors then follow up with students throughout their college career to help them choose courses that will fulfill transfer requirements. The Texas Association of Community Colleges is in the process of conducting an evaluation of the state's transfer policy to gauge how effective it has been in promoting successful completion of four-year degrees.

Absence of Strong Transfer Policies

Of the six states, Ohio has the lowest rate of students who transfer after earning an Associate's degree (22 percent), as well as the lowest rate of transfers without an award (6 percent). However, Ohio has the highest rate of Associate's degree earners (23 percent) (*see Appendix B and Appendix C*). Several factors contribute to Ohio's relatively low transfer rates. Many of the public universities are open-admission urban universities. In addition, several universities have systems of branch campuses that offer first- and second-year courses, facilitating internal transfer to the main campus and also awarding Associate's degrees: Ohio State University has five branch campuses; Kent State University, seven; and Ohio University, six. The urban universities and the university branch

To ensure that students are aware of transfer opportunities and how to take advantage of them, Texas has developed a strong community college counseling system for students before they enroll and during matriculation.

campuses serve many students who, in other states, probably would begin at a community college and later transfer to a four-year school.

Due to these characteristics of Ohio's public university system, the community colleges historically focused on encouraging students to earn terminal Associate's degrees and not on transferring to four-year colleges. In past years, the state did not have an active policy of encouraging transfer from two-year to four-year institutions.

However, Ohio policymakers have begun to introduce changes that may alter this picture and make transfer easier. About a year ago, the system began to validate institutions' courses for credit transfer among all public institutions in the system. Focusing on core education courses and those central to student majors, faculty throughout the state and across several disciplines have met to establish standard content and certify courses that meet the standards. Thousands of courses have been validated so far. The state is more than 80 percent finished with the process, and it will continue each year to ensure that course standards remain current. This new system will help students save money by allowing them to take courses at the less expensive community colleges, and then transfer either to one of the university branch campuses, which are slightly more expensive, or the main four-year campus, which is the most expensive postsecondary option.

Balanced Approach to Transfer

North Carolina demonstrates just how quickly state policy can have an impact on a community college system and start to shift student outcomes. Over the past decade, the state has taken a deliberately balanced approach that encourages students to transfer to a four-year college whether or not they first earn an award. The result has been an almost even distribution of students who earn an Associate's degree (16 percent) and students who transfer without an

award (14 percent). A relatively high percentage of degree earners (34 percent) later transfer. The transfer rates are particularly noteworthy given that the state did not allow community colleges to have more than 15 percent of its students enrolled in transfer degree programs until 1995. Prior to this time, community colleges in North Carolina focused primarily on workforce training rather than academic degrees or transfer. However, as North Carolina realized its need for more workers with Bachelor's degrees, the state decided to lift the transfer cap.

Further changes came in 1998, with the adoption of a statewide articulation agreement. But instead of favoring one transfer route over another, the state created policies that strengthened both options, allowing students maximum flexibility in deciding whether transferring with or without an award suited their needs best. A student can complete a 44-credit general education core and transfer all 44 credits to a public university without earning a degree, while a student graduating with an Associate's degree is guaranteed admission as a junior into one of the 16 public universities (although it might not be their top choice). The number of students transferring to four-year college with an Associate's degree has doubled since this policy started a decade ago.

Policies Supporting Success of Adult Students

North Carolina had a much higher percentage of older students enrolled in its community colleges compared with the other five *Achieving the Dream* Cross-State Data Work Group states—50 percent compared to only 17 percent to 26 percent elsewhere (*see Appendix A*). It also achieved a higher success rate with these students. About 46 percent of students age 23–45 met the benchmarks of earning an award, transferring, or still being enrolled with at least 30 credit hours in their sixth year. This compares to only 21 percent to 35 percent of older

students in the other Work Group states (*see Appendix B, Table 3*).

This success may be due to the fact that the North Carolina community college system was specifically designed to serve adult students, and it has learned how to serve them well. The system was created in 1965 as a set of industry training centers, with the mission to provide technical and vocational training to adults. It was not until the late 1980s that the system became a community college system and adopted student transfer as part of its mission. However, across the system, still only about 24 percent of total credit student enrollment is in college transfer programs (although some colleges have as high as 50 percent).

The industry-training history of the North Carolina community college system also explains the high percentage of awards of less than an Associate's degree earned by older students. Fourteen percent of older students who entered North Carolina's community college system earned a certificate or diploma, the highest among the six states. North Carolina has standardized programs for earning certificates (12 to 18 semester hours) and diplomas (36 to 48 semester hours), which make them more valuable to all students—especially adults—and may increase persistence and completion.

Policies Encouraging Enrollment of Minority Students

Of the six states, Connecticut had the most success recruiting and enrolling minority students. Both African-American and Hispanic students were overrepresented in its community colleges when compared to the percentage of these groups in the state's general population.

In Connecticut, state financial aid policy, college pricing, and administrative infrastructure help explain the relatively high level of minority student enrollment at community colleges.⁶ First, the state has an “incredibly aggressive financial aid technical infrastructure.”⁷ The financial aid processes are centralized in the state's Community Colleges System Office, so the processing burden is lifted for individual colleges. Since the development of this centralized system in 2000, both the percentage of students applying for aid and the volume of financial aid awards have increased significantly. Because minority students tend to be overrepresented among low-income students, this financial aid policy seems to be at least partially responsible for the relatively high percentages of minority students in the state's community colleges.

Another reason is the state's infrastructure. Connecticut is small, but it is served by 12 community colleges, making it relatively easy for students to find a college nearby. Also, many of the colleges have expanded their facilities to add locations within their service areas, particularly near where low-income students live. For example, the state expects to complete a \$200 million community college facility in downtown New Haven in 2012.

Tuition differentials also make Connecticut community colleges much more affordable for students with limited financial means than the state's four-year institutions. The combined cost of tuition, fees, and books at a community college is \$3,400 for a full-time student, well below the maximum federal Pell Grant for a full-time student of \$4,600. Tuition at the Connecticut State University system is twice that of the community college, and the University of Connecticut is at least three times higher.

North Carolina's success with older students may be due to the fact that the state's community college system was specifically designed to serve adult students, and it has learned how to serve them well.

Part IV. Looking Forward: Next Steps for the Cross-State Data Work Group

The analysis of six-year outcomes of entering community college students has provided the six states involved in the Cross-State Data Work Group with valuable baseline measures of system performance. The states plan to continue this analysis with more recent cohorts of entering students in order to track changes in system performance over time. Several other *Achieving the Dream* states will be joining the Work Group and participating in this ongoing comparative analysis.

Measuring final outcomes of their incoming students is only one piece of the larger puzzle of how states and their colleges can make better use of longitudinal student data and performance measures to increase student success. The Work Group has identified several other priorities to help states use data effectively to improve community college outcomes. These include: developing intermediate benchmarks to help determine whether students are on track for a successful outcome early in their college careers; analyzing the performance of different student subgroups; and assessing the benefits of various interventions to help increase success rates.

Developing Intermediate Benchmarks to Track Student Progress

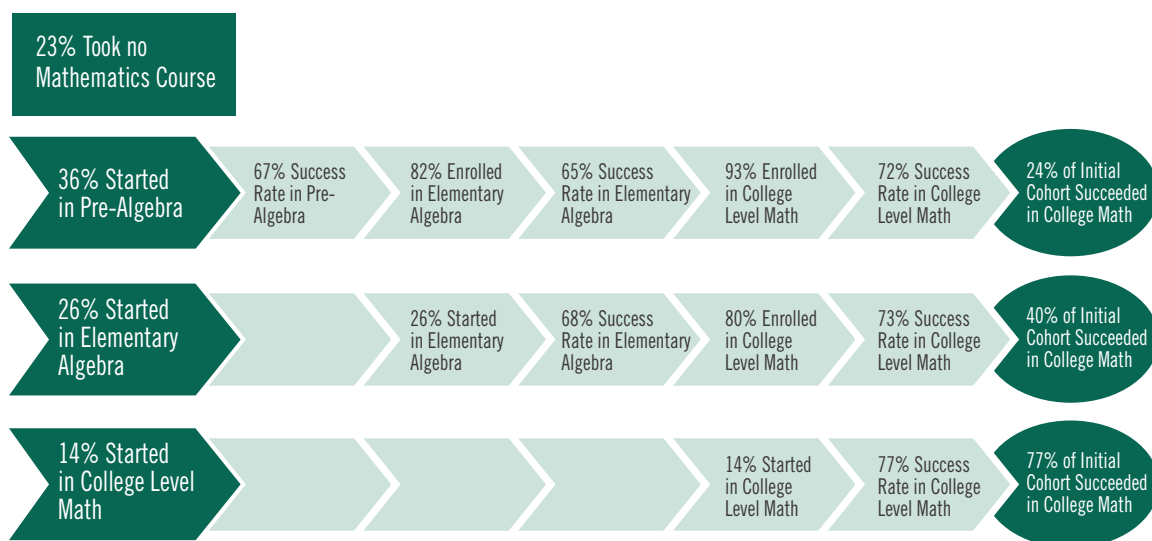
The Work Group is developing a set of intermediate benchmarks or interim measures that states can use to determine whether community college students in their first and second years are on track to earn a credential or transfer to a four-year institution. Measures being tested include:

- Completion of remedial course work by developmental education students;
- Enrollment in and completion of first college-level math and English courses;
- Pass rate in both remedial and college-level courses;
- Continuous enrollment from year to year and term to term.

The Work Group also is testing whether the number of credits students accumulate by the end of their first and second years are signs of future success or difficulty. Pilot tests using Florida data indicate that full-time students who earned twenty-four or more credits in their first year had a significantly greater likelihood of achieving a successful outcome within six years. On the other hand, students who earned twelve credits or less in their first year had a significantly lower likelihood of success. For part-time students, the tipping point appeared to be earning twenty-four credits within the first two years.

These intermediate indicators or benchmarks will not only provide states and their colleges with a way to identify students who are “off-track” and in need of assistance, but also a way to assess the impact of interventions in a timely manner. While six years is a reasonable time frame for measuring the final success rates of entering community college students, states and colleges can’t afford to wait that long to see if their policy and institutional reforms are making a difference. Tracking changes in the percentage of students reaching critical benchmarks in their first and second years of college will provide more immediate feedback about the impact of their interventions.

FIGURE 9. CONNECTICUT MATH PILOT SUCCESS PIPELINE FOR EACH STUDENT COHORT (FALL 2000; ALL NEW STUDENTS)



Analyzing Performance by Academic Readiness, Income, and Ethnicity

The Work Group states will begin to analyze college and state success rates based on student factors that historically have affected outcomes: level of academic readiness, income, and ethnicity. States that have placement test data will use this information as a proxy for readiness for college-level work. States will use receipt of need-based financial aid (federal Pell Grants⁸ and state grants) to examine the outcomes of low-income students compared to their middle-class peers.⁹

Identifying Promising Interventions

Another important role of the Work Group has been to share research strategies for probing the barriers to college success facing different student groups and identifying promising interventions for them. After discovering that relatively few community college students—even those considered “college ready”—enroll in and complete their first required college-level math course, several states have begun to analyze their students’ math performance.

These states are examining the progression of students through their developmental math course sequence to determine where different groups are faltering. For example, Connecticut found that only 24 percent of the students who started in lower-level remedial math ever completed a college-level math course (*see Figure 9*). Students who started in upper-level developmental math fared somewhat better, with 40 percent later completing college-level math. By contrast, students who were more prepared for college work and began in college-level algebra had a much higher success rate. Some 77 percent of these students later completed a college-level math course.

Several states also are interested in examining the performance of students who enroll in technical education at the college level and researching the barriers to college entry for students enrolled in college-sponsored Adult Basic Education programs.

Part V. Conclusion

The testing demonstrates the clear link between state policies and student outcomes: the more a state does to encourage behavior in certain directions, the more its community college institutions and students are likely to follow those paths.

The *Achieving the Dream* Cross-State Data Work Group has been collaborating for two years to develop and refine measures of student progress that can help states and community colleges increase student success. States, community college systems, and individual institutions can use this information to make better decisions about strategies to foster improvement, track the impact of selected interventions, and learn from the experiences of others.

The new approach the Work Group has developed to measure and compare community college performance across the nation addresses important weaknesses of the current federal method. The group's pilot testing shows that modifications such as tracking the progress of

both full-time and part-time students—over a longer period, and using a broader definition of success—result in a more accurate and useful assessment of community college strengths and challenges. The testing also demonstrates the clear link between state policies and student outcomes: the more a state does to encourage behavior in certain directions, the more its community college institutions and students are likely to follow those paths.

The Work Group will continue to refine its approach, paying particular attention to early warning signs that students may be at risk for dropping out and coming up with ways to help more students stay in school and succeed.



APPENDIX A

DESCRIPTIVE DATA

	CONNECTICUT		FLORIDA		NORTH CAROLINA		OHIO		TEXAS		VIRGINIA	
First-Time Students	Entry	Percent	Entry	Percent	Entry	Percent	Entry	Percent	Entry	Percent	Entry	Percent
Entry Year	Fall 2000		Fall 1999		Fall 2001		Fall 1999		Fall 1999		Fall 1999	
Total Entering Students	8,598		57,000		61,731		38,013		109,354		24,991	
Award-Seeking Students	5,144	60%	45,542	80%	38,024	62%	27,476	72%	80,119	73%	16,597	66%

DESCRIPTIVES OF AWARD-SEEKING STUDENTS						
	CONNECTICUT	FLORIDA	NORTH CAROLINA	OHIO	TEXAS	VIRGINIA
Age						
22 or Younger	74%	74%	51%	75%	83%	76%
23 to 45	23%	23%	43%	22%	15%	22%
46 and Older	2%	3%	7%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%
Gender						
Male	45%	46%	44%	47%	46%	44%
Female	55%	54%	56%	53%	54%	56%
Total	100%	100%	100%	100%	100%	100%
Ethnicity						
Caucasian, Non-Hispanic	59%	60%	68%	81%	59%	67%
Black, Non-Hispanic	17%	16%	24%	12%	10%	21%
Hispanic	15%	20%	3%	2%	27%	4%
Asian / Pacific Islander	2%	3%	2%	1%	3%	4%
Am Indian / Alaskan Native	0%	0%	2%	1%	0%	1%
Other or Unknown	6%	1%	2%	3%	1%	3%
Total	100%	100%	100%	100%	100%	100%
Enrollment Status						
Full-Time	52%	56%	62%	64%	51%	64%
Part-Time	48%	44%	38%	36%	49%	36%
Total	100%	100%	100%	100%	100%	100%

Data on all first-time-in-college community college students starting in fall or summer 1999, except the Connecticut cohort, which started in 2000, and the North Carolina cohort, which started in 2001; includes both full-time and part-time students; includes only those students seeking a degree or certificate; success outcomes based on a six-year time frame, except North Carolina, which is five years. Award-seeking students are those who indicated a program of study resulting in a certificate, diploma, or Associate's degree. See Appendix F for detailed methodology.

APPENDIX B

TABLE 1. SUMMARY OF RESULTS ON SUCCESS (All Age Groups)

	Award of Less Than Associate's Degree	Associate's Degree	Transfer w/o Award	Total Earned Award or Transfer—Subtotal	Still Enrolled w/o Award with 30+ Credits	Total Success
Full-Time Students						
Connecticut	1%	12%	18%	31%	10%	41%
Florida	6%	29%	8%	43%	8%	50%
North Carolina (5-Year Result)	11%	19%	15%	45%	8%	53%
Ohio	2%	28%	7%	37%	5%	42%
Texas	5%	15%	25%	45%	9%	54%
Virginia	3%	24%	16%	42%	3%	45%
Part-Time Students						
Connecticut	1%	5%	9%	16%	8%	24%
Florida	6%	14%	6%	26%	8%	34%
North Carolina (5-Year Result)	7%	11%	12%	31%	8%	39%
Ohio	1%	12%	5%	19%	5%	23%
Texas	5%	8%	26%	39%	9%	48%
Virginia	3%	10%	10%	22%	4%	26%
Full- and Part-Time Students						
Connecticut	1%	9%	14%	23%	9%	33%
Florida	6%	22%	7%	36%	8%	43%
North Carolina (5-Year Result)	10%	16%	14%	40%	8%	48%
Ohio	2%	23%	6%	30%	5%	35%
Texas	5%	12%	25%	42%	9%	51%
Virginia	3%	19%	13%	35%	3%	38%

Data on all first-time-in-college community college students starting in fall or summer 1999, except the Connecticut cohort, which started in 2000, and the North Carolina cohort, which started in 2001; includes both full-time and part-time students; includes only those students seeking a degree or certificate; success outcomes based on a six-year time frame, except North Carolina, which is five years. See Appendix J for detailed methodology.

APPENDIX B

TABLE 2. SUMMARY OF RESULTS ON SUCCESS (Ages 22 or Younger)

	Award of Less Than Associate's Degree	Associate's Degree	Transfer w/o Award	Total Earned Award or Transfer—Subtotal	Still Enrolled w/o Award with 30+ Credits	Total Success
Full-Time Students						
Connecticut	1%	11%	18%	30%	10%	41%
Florida	4%	32%	9%	45%	8%	53%
North Carolina (5-Year Result)	6%	19%	19%	44%	10%	54%
Ohio	2%	30%	7%	39%	5%	44%
Texas	4%	15%	26%	45%	10%	55%
Virginia	3%	24%	17%	43%	3%	47%
Part-Time Students						
Connecticut	1%	5%	11%	17%	9%	26%
Florida	5%	16%	7%	28%	9%	37%
North Carolina (5-Year Result)	5%	9%	16%	30%	9%	39%
Ohio	1%	15%	7%	22%	6%	28%
Texas	3%	8%	32%	44%	10%	54%
Virginia	2%	11%	12%	24%	4%	28%
Full- and Part-Time Students						
Connecticut	1%	9%	16%	25%	10%	35%
Florida	4%	26%	9%	39%	8%	47%
North Carolina (5-Year Result)	5%	17%	18%	40%	10%	50%
Ohio	1%	26%	7%	35%	5%	40%
Texas	4%	12%	29%	45%	10%	54%
Virginia	2%	20%	16%	38%	4%	42%

Data on all first-time-in-college community college students starting in fall or summer 1999, except the Connecticut cohort, which started in 2000, and the North Carolina cohort, which started in 2001; includes both full-time and part-time students; includes only those students seeking a degree or certificate; success outcomes based on a six-year time frame, except North Carolina, which is five years. See Appendix J for detailed methodology.

APPENDIX B

TABLE 3. SUMMARY OF RESULTS ON SUCCESS (Ages 23–45)

	Award of Less Than Associate's Degree	Associate's Degree	Transfer w/o Award	Total Earned Award or Transfer—Subtotal	Still Enrolled w/o Award with 30+ Credits	Total Success
Full-Time Students						
Connecticut	5%	17%	18%	33%	5%	39%
Florida	12%	15%	4%	31%	7%	38%
North Carolina (5-Year Result)	19%	19%	10%	47%	5%	52%
Ohio	3%	18%	3%	23%	4%	27%
Texas	15%	16%	8%	39%	5%	44%
Virginia	5%	22%	7%	34%	2%	37%
Part-Time Students						
Connecticut	2%	6%	7%	14%	8%	22%
Florida	8%	11%	5%	23%	6%	29%
North Carolina (5-Year Result)	8%	12%	12%	33%	8%	41%
Ohio	2%	10%	3%	14%	4%	18%
Texas	8%	10%	7%	25%	6%	31%
Virginia	3%	10%	7%	20%	3%	23%
Full- and Part-Time Students						
Connecticut	2%	8%	8%	18%	7%	25%
Florida	10%	12%	4%	26%	6%	33%
North Carolina (5-Year Result)	14%	15%	11%	40%	6%	46%
Ohio	2%	13%	3%	18%	4%	21%
Texas	10%	11%	8%	29%	6%	35%
Virginia	4%	15%	7%	26%	3%	28%

Data on all first-time-in-college community college students starting in fall or summer 1999, except the Connecticut cohort, which started in 2000, and the North Carolina cohort, which started in 2001; includes both full-time and part-time students; includes only those students seeking a degree or certificate; success outcomes based on a six-year time frame, except North Carolina, which is five years. See Appendix J for detailed methodology.

APPENDIX C

SUPPLEMENTAL SUMMARY DATA ON TRANSFER

	Percent of Students Earning an Award Who Subsequently Transfer to a Four-Year Institution	
	% of Certificate Earners	% of Associate's Degree Earners
Full Time		
Connecticut	17%	47%
Florida	12%	72%
North Carolina	5%	36%
Ohio	7%	22%
Texas	7%	54%
Virginia	15%	54%
Part-Time		
Connecticut	8%	34%
Florida	8%	59%
North Carolina	6%	29%
Ohio	7%	23%
Texas	4%	43%
Virginia	3%	43%
All New Students		
Connecticut	13%	43%
Florida	10%	69%
North Carolina	5%	34%
Ohio	7%	22%
Texas	6%	50%
Virginia	11%	52%

Data on all first-time-in-college community college students starting in fall or summer 1999, except the Connecticut cohort, which started in 2000, and the North Carolina cohort, which started in 2001; includes both full-time and part-time students; includes only those students seeking a degree or certificate; success outcomes based on a six-year time frame, except North Carolina, which is five years. See Appendix J for detailed methodology.

APPENDIX D

TABLE 1. FLORIDA OUTCOMES, BY INITIAL FULL- AND PART-TIME ENROLLMENT STATUS

Comparison of Successful Outcomes Achieved at 3, 4, 5, and 6 Years After Entry

FLORIDA DATA	Initial Cohort	Award of Less Than Associate's Degree w/o Transfer	Award of Associate's Degree or Higher w/o Transfer	Award of Less Than Associate's Degree and Transferred	Award of Associate's Degree or Higher and Transferred	Transferred w/o Award	TOTAL Success %*
N=45,537	%	%	%	%	%	%	
THREE-YEAR OUTCOMES (Fall 1999–Spring 2002)							
Full-Time Students	56.3%	3%	8%	0%	8%	2%	21%
Part-Time Students	43.7%	3%	3%	0%	1%	1%	8%
Total Cohort	100%	3%	6%	0%	5%	2%	15%
FOUR-YEAR OUTCOMES (Fall 1999–Spring 2003)							
Full-Time Students	56.3%	4%	9%	0%	14%	3%	30%
Part-Time Students	43.7%	4%	5%	0%	4%	1%	13%
Total Cohort	100%	4%	7%	0%	9%	2%	22%
FIVE-YEAR OUTCOMES (Fall 1999–Spring 2004)							
Full-Time Students	56.3%	5%	7%	1%	19%	8%	40%
Part-Time Students	43.7%	5%	5%	0%	7%	6%	23%
Total Cohort	100%	5%	6%	0%	14%	8%	33%
SIX-YEAR OUTCOMES (Fall 1999–Spring 2005)							
Full-Time Students	56.3%	5%	8%	1%	21%	8%	43%
Part-Time Students	43.7%	5%	6%	0%	8%	6%	26%
Total Cohort	100%	5%	7%	1%	15%	7%	36%

* Totals may not equal 100% due to rounding.

Data on all first-time-in-college students who entered the Florida community college system in 1999. Enrollment status was based on the number of credits students took their first term. Following the federal Integrated Postsecondary Data System (IPEDS) definition, students enrolled in at least four-fifths of a full course load their first term—12 out of a possible 15 credits—were classified as full time. Students taking less than a four-fifths load were classified as part time.

APPENDIX D

TABLE 2. FLORIDA OUTCOMES, BY AGE AT ENTRY

Comparison of Successful Outcomes Achieved at 3, 4, 5, and 6 Years After Entry

FLORIDA DATA	Initial Cohort	Award of Less Than Associate's Degree w/o Transfer	Award of Associate's Degree or Higher w/o Transfer	Award of Less Than Associate's Degree and Transferred	Award of Associate's Degree or Higher and Transferred	Transferred w/o Award	TOTAL Success %*
N=46,731	%	%	%	%	%	%	
THREE-YEAR OUTCOMES (Fall 1999–Spring 2002)							
22 or younger	74.4%	1%	5%	0%	6%	2%	13%
23–45	23.0%	3%	2%	0%	1%	0%	7%
46 and older	2.6%	5%	3%	0%	0%	0%	8%
Total Cohort	100%	2%	4%	0%	4%	1%	12%
FOUR-YEAR OUTCOMES (Fall 1999–Spring 2003)							
22 or younger	74.4%	3%	8%	0%	12%	3%	25%
23–45	23.0%	7%	6%	0%	3%	1%	16%
46 and older	2.6%	10%	6%	0%	1%	0%	17%
Total Cohort	100%	4%	7%	0%	10%	2%	23%
FIVE-YEAR OUTCOMES (Fall 1999–Spring 2004)							
22 or younger	74.4%	3%	7%	0%	17%	7%	34%
23–45	23.0%	7%	6%	0%	5%	3%	21%
46 and older	2.6%	10%	6%	0%	2%	1%	20%
Total Cohort	100%	4%	6%	0%	14%	6%	30%
SIX-YEAR OUTCOMES (Fall 1999–Spring 2005)							
22 or younger	74.4%	4%	7%	1%	18%	8%	38%
23–45	23.0%	9%	7%	1%	5%	4%	26%
46 and older	2.6%	13%	7%	0%	2%	2%	24%
Total Cohort	100%	5%	7%	1%	15%	7%	35%

* Totals may not equal 100% due to rounding.

Data on all first-time-in-college students who entered the Florida community college system in 1999. Enrollment status was based on the number of credits students took their first term. Following the federal Integrated Postsecondary Data System (IPEDS) definition, students enrolled in at least four-fifths of a full course load their first term—12 out of a possible 15 credits—were classified as full time. Students taking less than a four-fifths load were classified as part time.

APPENDIX E

TABLE 1. FLORIDA SIX-YEAR OUTCOMES, BY AGE AND COLLEGE READINESS

FLORIDA	Fall 1999 Cohort		Award of Less Than Associate's Degree w/o Transfer	Award of Associate's Degree or Higher w/o Transfer	Award of Less Than Associate's Degree and Transferred	Award of Associate's Degree or Higher and Transferred	Transferred w/o Award	Still Enrolled w/o Award and earned at least 30 hours	TOTAL Success %
	N	%	%	%	%	%	%	%	
Age 22 & Younger									
College-Ready (ACT, SAT, or CPT)	9,951	37.4%	3%	10%	1%	33%	10%	7%	63%
Need Developmental English Only	1,822	6.9%	2%	10%	1%	23%	9%	8%	53%
Need Upper-Level Developmental Math	4,682	17.6%	4%	7%	0%	15%	9%	9%	44%
Need Lower-Level Developmental Math	10,127	38.1%	4%	4%	0%	7%	7%	9%	31%
Total	26,582	100%	3%	7%	1%	19%	8%	8%	47%
Age 23–45									
College-Ready (ACT, SAT, or CPT)	941	15.1%	16%	11%	1%	12%	6%	4%	50%
Need Developmental English Only	204	3.3%	3%	14%	1%	14%	5%	7%	46%
Need Upper-Level Developmental Math	751	12.0%	7%	13%	1%	9%	6%	8%	44%
Need Lower-Level Developmental Math	4,354	69.7%	5%	8%	0%	5%	4%	7%	28%
Total	6,250	100%	7%	9%	1%	7%	5%	7%	34%
All Students (Including Age 46 and Older)									
College-Ready (ACT, SAT, or CPT)	10,985	33.0%	4%	10%	1%	31%	9%	7%	62%
Need Developmental English Only	2,035	6.1%	3%	11%	1%	22%	8%	8%	52%
Need Upper-Level Developmental Math	5,477	16.4%	4%	8%	0%	14%	9%	9%	44%
Need Lower-Level Developmental Math	14,798	44.4%	4%	5%	0%	7%	6%	8%	30%
Total	33,295	100%	4%	8%	1%	17%	8%	8%	44%

Note on Cut Scores Used to Determine Student's Level of College-Readiness

Classified as College-Ready—students who scored 16 or better on ACT math, writing, and reading exams; or scored 440 or higher on SAT math and 420 or higher on SAT verbal; or scored 72 or higher on Florida version of Accuplacer Elementary Algebra placement exam and 83 or higher on Florida version of Accuplacer reading and writing placement exams

Classified as Need Developmental English Only—students who scored college-ready on math placement exam but less than 83 on Florida version of Accuplacer reading or writing placement exam.

Classified as Need Upper-Level Developmental Math—students who scored below college-ready on math placement exam but in the upper range of the remedial scale (i.e., scored 47–71 on Florida version of Accuplacer math placement exam). This group includes students who tested above and below college-ready in English.

Classified as Need Lower-Level Developmental Math—students who scored below college-ready on math placement exam and scored in the lower range of the remedial scale (i.e., scored 20–46 on Florida version of Accuplacer math placement exam). This group includes students who tested above and below college-ready in English.

APPENDIX E

TABLE 2. TEXAS SIX-YEAR OUTCOMES, BY AGE AND COLLEGE READINESS

TEXAS	Fall 1999 Cohort		Award of Less Than Associate's Degree w/o Transfer	Award of Associate's Degree or Higher w/o Transfer	Award of Less Than Associate's Degree and Transferred	Award of Associate's Degree or Higher and Transferred	Transferred w/o Award	Still Enrolled w/o Award and Earned at least 30 hours	TOTAL Success %
	N	%	%	%	%	%	%	%	
Age 22 & Younger									
College-Ready	22,572	45.8%	1%	7%	0%	9%	43%	10%	70%
Need Developmental English Only	3,512	7.1%	2%	8%	0%	8%	24%	11%	53%
Need Upper-Level Developmental Math	9,361	19.0%	3%	6%	0%	6%	20%	11%	46%
Need Lower-Level Developmental Math	11,212	22.7%	3%	4%	0%	4%	14%	10%	36%
Unknown	2,678	5.4%	4%	3%	0%	3%	30%	10%	50%
Age 23–45									
College-Ready	1,677	24.7%	2%	15%	0%	7%	23%	6%	54%
Need Developmental English Only	226	3.3%	3%	12%	1%	7%	18%	11%	52%
Need Upper-Level Developmental Math	1,114	16.4%	4%	10%	0%	5%	8%	8%	35%
Need Lower-Level Developmental Math	2,297	33.9%	4%	9%	0%	4%	6%	7%	30%
Unknown	1,468	21.6%	7%	5%	0%	2%	8%	4%	26%
All Students (Including Age 46 and Older)									
College-Ready	24,324	43.0%	1%	8%	0%	9%	41%	9%	69%
Need Developmental English Only	3,748	6.6%	2%	8%	0%	8%	24%	11%	53%
Need Upper-Level Developmental Math	10,526	18.6%	3%	7%	0%	6%	19%	11%	45%
Need Lower-Level Developmental Math	13,626	24.1%	3%	5%	0%	4%	13%	10%	35%
Unknown	4,360	7.7%	5%	4%	0%	3%	21%	7%	40%

Note on Cut Scores Used to Determine Student's Level of College-Readiness

Classified as College-Ready—students who achieved the following scores or better on any one of the following exams: 19 on ACT math, writing, and reading exams; 500 SAT math and verbal exams; 63 on Accuplacer Elementary math placement exam, 78 on Accuplacer reading, and 80 on Accuplacer writing; 39 on Compass Elementary Algebra, 41 on Compass Reading, and 40 on Compass writing; 230 on Texas THEA/TASP math placement exam; 220 on THEA/TASP reading and writing.

Classified as Need Developmental English Only—students who scored college-ready on math placement exam but below college-ready on a reading or writing placement exam.

Classified as Need Upper-Level Developmental Math—students who scored below college-ready on math placement exam but in the upper range of the remedial scale (i.e., 42–62 on Accuplacer; 23–38 on Compass; 206–229 on THEA/TASP). This group includes students who tested above and below college-ready in English.

Classified as Need Lower-Level Developmental Math—students who scored below college-ready on math placement exam and scored in the lower range of the remedial scale (i.e., below 42 on Accuplacer; below 23 on Compass; below 206 on THEA/TASP). This group includes students who tested above and below college-ready in English.

APPENDIX F

METHODOLOGY FOR CROSS-STATE COHORT ANALYSIS OF COMMUNITY COLLEGE SYSTEM OUTCOMES

Students Included in Analysis

The *Achieving the Dream* Cross-State Data Work Group's analysis of community college system outcomes assessed the performance of all award- and degree-seeking students—both full-time and part-time—who entered college for the first time in the fall or summer of 1999. Due to data-quality issues, Connecticut used its entering 2000 cohort, and North Carolina used its entering 2001 cohort.

To determine which students were seeking awards and therefore should be included in the analysis, the states used data collected from their colleges during the initial registration or enrollment process. Most states based their classification on the program of study a student selected during initial registration. Students who selected a certificate, diploma, or Associate's degree program of study were classified as award-seeking students.

Ohio and Texas relied on a student intent survey to determine whether a student was seeking an award. During the initial enrollment process in these states, students filled out a form describing their main purpose for attending college. Students who said that they planned to enroll in a formal award program (degree, diploma, or certificate program) or would prepare to transfer to a four-year, degree-granting institution before earning an award were classified as award-seeking students. Students who checked non-degree reasons for attending (e.g., they wanted to take a course or two for personal enrichment or to improve specific job skills) were excluded from the analysis.

States differed in how they handled students with missing data. Most states excluded students who did not identify their program of study. Texas, in contrast, assumed that all students were pursuing an award unless they explicitly declared themselves not to be seeking an award. In other words, students who did not complete the initial intent survey or otherwise had missing data related to their intended program of study were assumed to be award-seeking.

Definition of Enrollment Status

To determine enrollment status, the states used the same criteria used by the federal Integrated Postsecondary Education Data System (IPEDS). Students enrolled in at least four-fifths of a full course load their first term—usually 12 credits out of a possible 15 credits—were considered full time. All other students were considered part-time.

Time Frame for Analysis

The analysis measured outcomes achieved by students within six years of first entering community college. The exception was North Carolina, which had only five years of data for its 2001 cohort. The Work Group decided to extend the time frame for measuring successful outcomes from three years—the length of time used in the federal Graduation Rate Survey—after testing the impact of using different amounts of time. The Work Group found that extending the time frame increased the figures for success rates, particularly for students who started out in developmental education.

Definition of Successful Outcomes

The analysis identified the following outcomes as successful:

- Earned an Associate's degree (with or without transfer to a four-year institution within the six-year period);
- Earned an award of less than an Associate's degree (with or without transfer to a four-year institution within the six-year period);
- Transferred to a four-year institution without earning an award; or
- Still enrolled in year six (either fall, spring, or summer semester) with at least 30 credits earned.

State Variations in Definition of Awards of Less than an Associate's Degree

Instead of setting common criteria for which awards below the Associate's degree level would be included in this comparative analysis, the Work Group allowed each state to use its own rules for counting certificate earners. While some states have standardized definitions of certificate levels and minimum credit requirements, others do not. Here are the criteria that each state followed to identify students who had earned awards of less than an Associate's degree:

- *Connecticut*: Any approved certificate program; lengths vary.
- *Florida*: Any approved certificate program; lengths vary.
- *North Carolina*: Certificates range from 12 to 18 semester hours and diplomas range from 36 to 48 semester hours. Awards are standardized throughout the community college system.
- *Ohio*: Short-term technical certificate programs consist of less than 30 semester hours and are designed for a specific employment situation. One-year technical certificate programs generally consist of 30 to 37 semester hours. Ohio has ascertained that the reporting of certificate completions is uneven across institutions, and most likely understates the level of instructional activity in this area.
- *Texas*: Certificates require at least 15 credit hours. While colleges offer shorter-term certificates, the state restricts the certificates it counts in calculating community college graduation rates to those of at least 15 credit hours. The state used that criteria for this analysis.
- *Virginia*: Earners of either short Career Studies Certificates, which vary in length from 9 to 29 credit hours, or longer-term certificates that require at least 30 credit hours. For the purpose of this analysis, CSC earners who attained their certificate during their first year in college were not counted as award earners.

Endnotes

- ¹ See Organisation for Economic Co-operation and Development, *Education at a Glance 2007*.
- ² An analysis of 1995-96 beginning postsecondary studies found that 13 percent of students who initially enrolled in a community college transferred to another community college. Percentage distribution (by columns) of 1995-96 beginning postsecondary students by the level and type of the first institution attended, according to multiple institution attendance patterns. (Katharin Peter & Emily Forrest Cataldi. 2005. *The Road Less Traveled? Students Who Enroll in Multiple Institutions*. Washington, DC: National Center for Education Statistics. Table 2.)
- ³ Appendix E and Appendix F, with data from pilot runs by Florida and Texas, show the relative performance of college-ready and developmental education students based on placement test scores. They classified entering 1999 students based on whether they needed developmental English or math, as well as the level of developmental math they needed. As one would expect, college-ready students significantly outperformed developmental education students. In addition, students entering with substantial deficiencies in math (i.e., they scored low on the math placement exam) did significantly worse than students who came in with more modest developmental math needs or just English needs.
- ⁴ The only exception was North Carolina, which had only five years of data for this analysis.
- ⁵ Interview with Pat Windham, Associate Vice Chancellor for Evaluation, and Nancy Copa, Research and Evaluation Coordinator, Florida Department of Education, Division of Community Colleges and Workforce Preparation, March 18, 2008; see also Callan, Ewell, Finney, and Jones. 2007. *Good Policy, Good Practice*. Boulder, CO: NCHMES.
- ⁶ Interview with Paul Susen, Chief Academic Officer, Academic Affairs, Connecticut Community College System, March 19, 2008.
- ⁷ Susen interview.
- ⁸ To validate the use of Pell Grant status as a proxy for income, Florida used a merged K-16 database to examine the correlation between student eligibility in the eighth grade for the federal government's free and reduced-price lunch program (a widely used proxy for family income) and their Pell Grant status. This research found that 70 percent of full-time college students classified in the eighth grade as low-income based on free and reduced-price lunch status were receiving Pell grants in college. The correlation for part-time students was much lower: only 41 percent of part-time community college students eligible for free and reduced-price lunch in the eighth grade were receiving Pell Grants.
- ⁹ This analysis will be restricted to full-time students because the low take-up rate of financial aid among part-time students makes it a less reliable income proxy for this group.



JOBS FOR THE FUTURE

88 Broad Street
Boston, MA 02110
617.728.4446
www.jff.org