Serving the Equity Imperative: Intentional Action Toward Greater Student Success

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State Higher Education Executive Officers and Complete College America

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Introduction

If states are to achieve their postsecondary education attainment goals they must take direct and immediate action to address the equity gaps between underserved populations and white and Asian students who are succeeding at higher rates. Not only is earning a postsecondary credential essential for individual economic vitality, but it is necessary to the economic vitality of our states and our nation. As Steve Murdock, demographer and former director of the U.S. Census Bureau, has said, the economic prosperity of the entire nation hinges on reducing these gaps, since reducing them is the single greatest way for us to drive economic growth.

Unfortunately, these students are disproportionately impacted by components of the education system that consistently have not served students well. Underserved students are overrepresented in a remedial education system from which few students ever emerge. They are more likely to attend under-resourced institutions with fewer structures known to support student success and, as a result, accumulate fewer credits in their first year. All these factors contribute to the gap in completion rates.

The data presented in this policy brief support the notion that time is, in fact, the enemy and that many underserved students fail to achieve a higher education credential because the path to a degree is unnecessarily long, costs too much, and does not support success for all students. These data show that few gaps exist across race/ethnicity for students who successfully complete the education pipeline. In fact, students who graduate take about the same amount of time and the same number of credits to get a degree regardless of their race or ethnic status. States and their higher education systems must address the equity gaps at each stage of the education pipeline to make real progress in addressing the attainment gap.

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1 Murdock, Ph.D., Steve, Professor of Sociology, Rice University. Population Change in the United States: Implications for Education and Socioeconomic Development. Presentation at SHEEO Higher Education Policy Conference, August 5, 2015
Background

Established in 2009, Complete College America is a national nonprofit agency with a single mission: to work with states to significantly increase the number of Americans with quality career certificates or college degrees and to close attainment gaps for traditionally underrepresented populations.

As the national association of statewide governing, policy, and coordinating boards for postsecondary education, the State Higher Education Executive Officers Association (SHEEO) is focused on increasing postsecondary education attainment. SHEEO’s vision statement focuses on student success and sets an ambitious goal of at least 60 percent of adults from every socioeconomic and demographic category completing a postsecondary degree or credential of quality.

Both organizations work directly with their state members and, since 2011, have collaborated to collect the CCA common completion metrics. These data provide student success points throughout the postsecondary education pipeline. Unlike the federal Integrated Postsecondary Education Data System (IPEDS), the CCA dataset includes information on remedial education and gateway math and English courses; student, first-year credit accumulation; and the time and credits to degree. Further, CCA data can be disaggregated by race/ethnicity in addition to full-time, part-time and transfer status. These data provide a powerful tool for states in understanding their equity gaps and they provide a unique opportunity to look at these trends from a national perspective.
Serving the Equity Imperative: Intentional Action Toward Greater Student Success

Equity Challenges and Opportunities through the Postsecondary Education Pipeline

Equity Challenge 1:
Underserved groups are over represented at less selective colleges with lower graduation rates and fewer resources

While, as a nation, we are starting to close access gaps through increasing overall college enrollments of Hispanic/Latino and black/African American students, these students are more likely to enroll in less selective institutions despite data that suggests many more are capable of attending high research institutions. In fact, fully 60 percent of black students enrolled in 2-year institutions while only 8 percent enrolled in very high-research 4-year institutions. Conversely, a much higher proportion of Asian students enroll in high research institutions than any other group.

Figure 1.

Distribution of Student Enrollment Across Institution Sectors By Race

<table>
<thead>
<tr>
<th></th>
<th>Two Year</th>
<th>Four Year</th>
<th>Four Year Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI/PI/NA</td>
<td>56%</td>
<td>31%</td>
<td>13%</td>
</tr>
<tr>
<td>Asian</td>
<td>43%</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>Black</td>
<td>60%</td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>54%</td>
<td>27%</td>
<td>18%</td>
</tr>
<tr>
<td>White</td>
<td>54%</td>
<td>31%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Notes: Bars do not add up to 100% because the percent for each sector uses an individual median of state means. AI/PI/NA: American Indian, Native Hawaiian or Pacific Islander, Native Alaskan.


3 Includes institutions that based on 2010 Basic Carnegie Classification are considered R1: Research Universities (Very High Research Activity)
At all institution types, black, Hispanic and American Indian, Native Hawaiian or Pacific Islander, and Native Alaskan students have lower graduation rates and these differences are especially pronounced at the types of institutions which minority students are more likely to attend—community colleges and non-research four-year institutions. Black students are far more likely to enroll in a community college and, of those who entered full time seeking a degree, only seven percent graduated with an associate degree within three years. Another 13 to 16 percent go on to transfer to a four-year institution before receiving their degree but only a portion of those students go on to complete a degree.

This disproportionate enrollment of minority students in less selective institutions, and lack of success at those institutions also contributes to disproportionate attainment. The data show a much smaller proportion of black, Hispanic, and American Indian, Native Hawaiian or Pacific Islander, and Native Alaskan students receive bachelor’s degrees in comparison with Asian and white students. While the completion of any postsecondary credential provides a boost in earning potential over high school
graduation alone, national averages show that bachelor’s degrees, on average, confer higher lifetime earnings than associate degrees just as associate degrees confer a higher earnings boost than certificates.

If states are to improve the postsecondary attainment rates for underserved populations, it is critical for them to focus their efforts on equipping the open access institutions these students attend with program reforms to better serve all students. To date, many efforts have focused on improving student choice and matching, but this ignores the facts that location and cost are the primary drivers of students’ college decisions and that selective institutions will never have a sufficient number of seats to serve all students. Given the growing diversity in the U.S. population, the equity imperative is clear: States and their higher education systems must close the gaps in enrollment, completion, and attainment for all student groups if they wish to have the workforce, wealth, and civic participation our country needs in the 21st century.

Thankfully, there are policies and practices emerging that show great promise for increasing attainment rates for all students and improving outcomes for underserved minority populations. Complete College America calls these strategies the Game Changers because institutions and states implementing these reforms are seeing significant improvements in student success.

The Game Changer: Creating incentives for student success through outcomes-based funding

The first step to ensuring that all students have the opportunity to succeed is ensuring that student success is the primary goal of postsecondary institutions. For many years, states funded institutions based on the number of students they enrolled but 32 states have now shifted to funding institutions, at least partially, on completion outcomes rather than merely enrollment inputs. A well-designed outcomes-based funding policy tied to a state’s strategic plan can help create the internal conditions necessary for a state to focus on completion and increasing attainment. Outcomes-based funding programs encourage participating institutions to focus on completion and the steps necessary to get students there.

Though outcomes-based funding alone cannot increase completion, this intervention provides a financial incentive for institutions to improve outcomes. A growing body of research shows these models often lead to institution-level improvements in aligning with state goals to improve educational outcomes. States that distribute all or a significant portion of their state fiscal appropriations based on outcomes rather than enrollment, such as Tennessee and Ohio, are also highly involved in institution-level reforms that focus on interventions that show promise in improving completion and closing achievement gaps. Additionally, both states include weighting for better serving underserved populations, including students who are older, low income, minority (in Ohio only), and otherwise at-risk. A well-designed funding formula that provides incentive funding for credentials earned by black,

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Serving the Equity Imperative: Intentional Action Toward Greater Student Success

Hispanic, and underrepresented groups of students can help close equity gaps in postsecondary education.

The U.S. will not achieve its attainment goals if states and their higher education systems merely avoid increasing the equity gaps that already exist between student subgroups—we must intentionally close those gaps and offer incentives to implement proven-effective practices. As states continue to experiment with outcomes-based funding, we will learn how to use this lever more effectively to both close equity gaps and increase attainment for all students. By tracking the results of various outcomes-based funding initiatives in the states with close attention paid to the equity imperative, we have the opportunity to shape outcomes-based funding into a true Game Changer for higher education attainment AND equity.

**Equity Challenge 2:**
**Far too many students of color are lost in the traditional remediation system**

Most students who enter non-selective four-year institutions and community colleges must take placement tests in math and English prior to registering for classes. These tests determine if a student will start in college level work or be placed into remedial or developmental education. Traditionally, students who test below college-level proficiency must complete a series of courses, over multiple semesters that do not count toward a degree before they can even enroll in college-level, credit-bearing courses. For many students, these remedial classes are their first and last experience in college. Even those who successfully complete the remedial sequence far too often fail to even enroll in the associated gateway course. It is essential for students to complete these gateway courses early in their postsecondary pathway since they are often prerequisite requirements for other courses required for a degree. What is more, data suggest that many of the students placed in remediation could have successfully completed college-level coursework if they had started there, and many more could complete if provided with additional supplemental support.

While remedial placement burdens students of all races, the effects are particularly dire for students from historically underserved populations. At two-year institutions, more than 70 percent of black students and 60 percent of Hispanic students enroll in at least one remedial course compared to just over 50 percent of white and Asian students. At four-year institutions, the gaps are even more pronounced. In fact, black students are more than twice as likely to enroll in remediation. Additionally, both black and Hispanic students are more likely to need remediation in both math and English.

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Serving the Equity Imperative:  Intentional Action Toward Greater Student Success

**Figure 4.**

**Percent of First Time Students Who Enroll in Remedial Courses By Subject**

<table>
<thead>
<tr>
<th>Two Year</th>
<th>Asian</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>17%</td>
<td>20%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>English</td>
<td>13%</td>
<td>12%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Both</td>
<td>22%</td>
<td></td>
<td>30%</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Four Year</th>
<th>Asian</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>11%</td>
<td>24%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>English</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Both</td>
<td>6%</td>
<td></td>
<td>12%</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Note:** Four Year Research institutions are not included since these institutions offer very little remediation.

Success in the first college-level gateway course for those students who complete the remedial sequence also varies dramatically by race. In particular, far fewer black students go on to complete the gateway course (or college level courses associated with their remedial needs) within two years, while Asian students are highly likely to complete the gateway course. The gaps are less pronounced for white and Hispanic students. Across both race and subject, far too few students of nearly any background complete their associated gateway courses within two years of entry, which significantly impacts their ability to complete a degree on time.

**Figure 5.**

**Percent of Remedial Students Who Complete All Associated Gateway Course(s) within Two Years**

**Notes:** N/A = Sample size is too small. A: Asian  B: Black or African American  H: Hispanic or Latino  W: White
While these data give us an overall sense of inequity across student subgroups, Figure 6 highlights the overall impact of these trends more clearly. For every 100 students enrolling in college, approximately the same number of students will be successful in remediation in each race/ethnicity category. However, since so many more black students enroll in remedial education and so few complete the associated gateway; twice as many black students fail to complete gateway courses as white students. Although the success rates for white and Hispanic students are somewhat similar, many more Hispanic students are lost in the pipeline because so many more enroll in remedial courses. Asian students are not only less likely to enroll in remedial courses, they are more likely to succeed in remedial courses, meaning that, unlike for any other group, almost as many Asian students will succeed as will drop out of the pipeline.

Figure 6.

First Year Pipeline for 100 Entering Students of Each Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Fail to Complete Gateway Course</th>
<th>Complete Gateway Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>-16</td>
<td>10</td>
</tr>
<tr>
<td>Black</td>
<td>-52</td>
<td>9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-35</td>
<td>11</td>
</tr>
<tr>
<td>White</td>
<td>-26</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: Total length of bars (green + red) represents the number of students who start in remediation the remaining students (out of 100) did not enroll in remediation.

These data confirm what the empirical research has been showing for some time: the traditional approach to remedial education is not serving students well. These data also underscore the importance of disaggregating outcomes by race and ethnicity. Adverse implications for maintaining the current system are greater for black and Hispanic students who are more likely to enroll in remedial education and less likely to succeed in the current, status quo, system.

The Game Changer:
Corequisite remediation

Addressing this remediation issue means abandoning the system that does not work and transitioning to a model that is showing better results—corequisite remediation. With this approach, students are enrolled directly into a college-level course with additional corequisite-support systems. Remedial supports are provided along-side college coursework as a corequisite rather than before college coursework as a prerequisite. Colorado, Indiana, Georgia, Tennessee, and West Virginia are seeing dramatic increases in gateway completion rates within one semester (dark blue) for students enrolled in
corequisite models compared to two year gateway completion rates under the prerequisite model (light blue).

Figure 7.

The results in Figure 8 come from the Tennessee Board of Regents Corequisite Remediation Pilot Study\(^8\) and show that minority students saw similar gains in outcomes under the corequisite model across all levels of preparation and at most levels of preparation the gaps get smaller.

Figure 8.

In light of these results, six higher education organizations have endorsed core principles for transforming remediation designed to help states focus on the key elements needed to achieve results. Reforming placement to include multiple measures and career pathways, enrolling students directly into college-level courses with additional support, serving a small number of students who may not succeed in the gateway course right away, aligning gateway courses with a program of study, and tracking data are the essential principles that provide a road map for implementing new models of remediation.

**Equity Challenge 3:**
Underserved students don’t start out on track for on time graduation

Most Americans believe it should take two years to complete an associate degree and four years to complete a bachelor’s degree as this is how these degrees are marketed and described. Still, far too few students complete two-year or four-year degrees on time. One reason why students do not complete on time is simple math: while most associate degrees consist of 60 credits and most bachelor’s degrees consist of 120 credits, to be on track to graduate on time students must complete 30 credits per year. Too few students meet this threshold.

*Figure 9.*

The number of students who complete 30 or more credits in the first year differs materially across races and ethnicity, and across institution types. Again, Asian and white students are more likely to start off on-track than their black and Hispanic counterparts. The difference is especially pronounced at two-year and four-year non-research institutions, where black and Hispanic students are more likely to attend. Across the board, too few students start out their college career by completing the 30 credit hours in

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9 www.core-principles.org
Serving the Equity Imperative: Intentional Action Toward Greater Student Success

the first year that they need to be on track for an on-time degree. Even at four-year research institutions, almost a full 20 percent of students do not start out on time, and the data are worse for black and Hispanic students.

It is important to note that the accepted standard for full time is 24 credits per year, rather than 30, in part due to federal financial-aid parameters. At two-year institutions, fewer than 40 percent of students who start full time in their first semester complete a full-time load in their first year, and fewer than 20 percent of black students complete 24 credits in their first year. Pair these data with the fact that 62 percent of black students are attending two-year institutions and it is clear that states and their higher education systems need to do more to encourage at least full-time enrollment.

The Game Changer:
Set a new standard—15 is full time and 30 is on time

Looking at their state level data at the 2010 CCA Convening, representatives from the University System of Hawaii were surprised to see how few credits students were accumulating. Hawaii looked further into their data and found that students who enrolled in 15 credit hours in their first semester were more successful on multiple measures. Many students were not encouraged to enroll in 15 credits; however these students assumed they would graduate on time. The System moved forward with a public-awareness campaign titled “15 to Finish” to help both students and advisors understand the importance of enrolling in 15 credits a semester. Today the system has seen not only a growth in credit completion but also improved outcomes for the increasing numbers of students enrolling in more credits. A growing body of academic research is showing similar results.11

There are many strategies states can employ to define full time as 15 credits per semester or 30 credits per year. As part of a Lumina Foundation-funded project, SHEEO interviewed staff at the University of Hawaii to understand how the program was implemented successfully. Two key findings arose from this interview. First, institutions with banded-tuition policies saw better results with more students attempting and succeeding in 15 credits per term. Those institutions with linear tuition structures charging for each credit hour saw fewer positive gains. Second, buy-in from institutional leadership—and more importantly, staff—was critical to the success of the implementation; specifically, shifting the default definition of 12 credits equals full time that aligns with the federal Pell definition to 15 for Hawaii’s financial aid counselors.13

Complete College America has drawn on this work, making “Full time is 15” a key Game Changer, and has collaborated with states (e.g., Utah, Nevada, Kentucky, and Indiana) to implement their own public-service campaigns and identify other ways policymakers can reduce barriers to students’ on-time completion. The recommendations include:

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12 With banded tuition students pay the same amount to enroll full time whether they enroll in 12 or 15 credits.
Limiting the number of credits for the vast majority of their degrees to 60 for associates or 120 credits for baccalaureate degrees

Encouraging all institutions—not just selective ones—to adopt banded tuition policies that will financially incent more students to enroll in 15 credits per semester

Making 15 credits per term or 30 credits per year the default number of credits students are encouraged to enroll in rather than 12 or 24

Urging states as well as the federal government to provide financial bonuses that allow students with the most financial need to enroll full time

These policies are yielding initial positive results. Between 2011 and 2012, the University of Hawaii System saw the number of students attempting 15 or more credits in their first year rise from 36 percent to 52 percent at four-year institutions. These results have remained consistent across additional years with improvements in factors like first-year retention, with an increase from 9 percent to 11 percent. These data also show that underrepresented minority populations actually experienced larger gains.

Figure 10.

By taking a comprehensive approach Indiana saw similar trends. In addition to offering 15 to Finish campaign resources to campuses, the Indiana Commission of Higher Education tied state financial-aid policies to 30 credits per year by providing bonuses to students who enroll in or complete 30 credits. After this change, students in the O’Bannon need-based-aid program completing 30 credits in their first year increased from 51 percent to 63 percent. The approach does not have to be “all or nothing.” Indiana has maintained 24 credits as the baseline for its O’Bannon need-based grant program, but offers bonus payments for students completing 30 credits during an academic year. Finally, a number of

institutions in Indiana have started to offer or are considering offering banded tuition to further facilitate credit accumulation, in effect, making 15 credits a term cost the same as 12.

If states and their higher education systems are to close the equity gaps in the higher education system they must create structures and practices that put students on a path to on-time graduation the moment they walk on campus. 15 to Finish can be complemented with other structural changes such as corequisite remediation and elements of guided pathways that help ensure credits earned count toward a degree.

Equity Challenge 4: More students are enrolled part time and fewer part-time students succeed

Students who enroll full time are more likely to graduate than are part-time or mixed enrollment\textsuperscript{15} students. Students who enroll full time complete more credits more quickly, thereby decreasing their time-to-degree and increasing their likelihood of success. Data from the National Student Clearinghouse Signature Reports, which can track data across both institutions and states, regularly show that six-year completion rates are dramatically higher for students who enroll full time all the time. Unfortunately, only 40 percent of students enroll full time all the time.\textsuperscript{16} Finally, full-time enrollment maximizes the return on investment because the economic benefits of the credential are realized sooner.

Data collected from Complete College America Alliance of States show that there are few differences within sectors across race groups. On average, a little less than 40 percent of students enrolled in community college are enrolled full time, 70 percent of students at four-year non-research institutions are enrolled full time, and close to 85 percent of students at research institutions are enrolled full time. The one notable exception is that Asian students enrolled at two-year and black students at four-year research institutions are less likely to be enrolled full time than students from other groups. When combined with enrollment data from section one that shows black and Hispanic students are much more likely to be enrolled in two-year institutions and non-research four-year institutions it is clear that to address the needs of these students states and their higher education systems must help improve outcomes for part-time and mixed enrollment students.

\textsuperscript{15} Students with mixed enrollment enroll full time some semesters and part time other semesters

The Game Changer:
Provide more structure and clearer pathways for students not enrolled full time

For all students to be successful, they need an expectation and pathway for completion. Institutions and systems in Indiana, Tennessee, and New York have implemented structured scheduling with promising initial results. Structured scheduling creates classes offered in a block during a specific time period throughout a degree program. Some for-profit, public, and private, nonprofit institutions already offer courses in this structured way. The colleges of applied technology in Tennessee have streamlined the path to completion by enrolling students in whole academic programs, and have managed to attain an average completion rate of 75 percent.¹⁷ At the City University of New York (CUNY), students participating in the structured cohort-based Accelerated Study in Associate Programs (ASAP) have doubled their graduation rates for students in the program and equity gaps have closed dramatically.¹⁸ Though the ASAP program came with a high price tag, institutions like CUNY’s Stella and Charles Guttman Community College have been able to learn from its success and accomplish significant results. Students at this institution participate in a structured, cohort-based program, and just under 30 percent of students in the first two cohorts graduated in three years.¹⁹ In 2015, the Texas legislature passed a bill requiring some health degrees and career and technical programs to implement structured schedules with hopes they will yield similar outcomes.

¹⁷ Based on calculations of data submitted in 2014 to Complete College America.
Serving the Equity Imperative: Intentional Action Toward Greater Student Success

In addition to increasing predictability and decreasing time to degree, structured scheduling within degree programs allows institutions to build cohorts of students working toward a credential together. Providing students with a peer group as they progress through their education is one of the high impact practices measured by the National Survey of Student Engagement and shown to have positive outcomes. These practices help all students and early results indicate that they help underserved student populations more.

Equity Challenge 5:
Reaching the end goal (time and credits to degree)

In 2011, Complete College America released its report, *Time is the Enemy*, which highlighted evidence that students are taking far too long to graduate, and that those who do graduate have far more credits than they need to get their degree. Students from all race groups take more time and earn excess credits than what is required for their degree or credential. On average, it takes associate degree students who enter full time almost twice as long to complete and almost as long as a bachelor’s degree requires. For bachelor’s degree students, it takes students at non-research four-year institutions an extra year to complete, and at research institutions, an extra semester to complete.

Though there are many reasons that students take extra time, excess credits are likely one culprit. Over the time taken to earn the credential, associate degree recipients earn, on average, 30 percent more credits than they need. Bachelor’s degree recipients graduate with an average of 12 percent more credits than they need.

*Figure 11.*

*Average Time to Degree for Full Time Students*

<table>
<thead>
<tr>
<th></th>
<th>Associates</th>
<th>Bachelors</th>
<th>Bachelors Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Asian</td>
<td>4.3</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>B: Black or African American</td>
<td>3.8</td>
<td>4.9</td>
<td>4.5</td>
</tr>
<tr>
<td>H: Hispanic or Latino</td>
<td>3.9</td>
<td>5.1</td>
<td>4.5</td>
</tr>
<tr>
<td>W: White</td>
<td>3.9</td>
<td>4.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>

*Notes:*  
A: Asian  
B: Black or African American  
H: Hispanic or Latino  
W: White
These data are perhaps most interesting when looked at through an equity lens. In this case, what is most interesting is the lack of difference across race categories. In fact, Asian students are most likely to get a degree but also tend to stay in the system the longer and accumulate slightly more credits. In contrast, black students are less likely to graduate but those who do complete faster and in many cases with fewer credits. These similarities suggest that, in general, students are capable of completing college with similar outcomes and they often do.

The Game Changer:
Students need to be put on direct pathways from day one

States and their higher education systems are losing far too many students, particularly black and Hispanic students, in an education pipeline that does not meet their needs. The systems and structures at too many public institutions simply do not meet the needs of today’s student. If states want more students to complete, they must have the support students need to keep them enrolled and on a clear path to graduation. States and their higher education systems must address equity gaps by rethinking and redesigning higher education delivery in ways that will help close achievement gaps that clearly exist. Students need supports to choose the right pathways and they need to be put directly on those pathways. Even if they cannot complete on time, they need a clear expectation about how much time it will take, and what they will need to do to accomplish it. There are many examples of institutions that have implemented comprehensive guided pathways systems which have yielded unprecedented results.

For example, over ten years, Florida State University was able to use degree maps and technology solutions to implement those maps to increase graduation rates to 74 percent for all students, 77 percent for black students, and 70 percent for Hispanic students. Georgia State has used degree maps, intrusive advising, and other strategies to become the U.S. University that confers the most degrees to black students, and the institution has a 57 percent graduation rate for African Americans and 66
percent for Hispanic students\textsuperscript{20}. Strategies like default pathways, informed choice, meta-majors, academic maps, milestone courses, and intrusive advising can stand alone or together with other Game Changers strategies, like corequisite remediation, full time is 15, and structured schedules, as key components of a comprehensive guided pathways approach.

**Conclusion**

The CCA dataset provides state level data that can be examined by race/ethnicity category and institution type throughout each step of the postsecondary education from enrollment through completion. This level of detail has previously not been available and allows states to drill down into the “black box” between enrollment and completion/non-completion to really understand where equity gaps develop or grow. Nationally, the data presented here show that at each stage of the postsecondary pipeline, black and Hispanic students are less likely to succeed than their white and Asian peers. Over the course of the pipeline, these effects compound upon themselves and become cumulative; the end result of which is that black and Hispanic students are less likely to earn a postsecondary credential.

If states and their higher education systems are to address this country’s attainment gaps they must address equity gaps at the root. This nation can no longer afford to lose students in an education system that does not meet their needs. The Game Changers continue to show promising initial results in closing equity gaps throughout the postsecondary education pipeline and in helping students complete their degree or credential. These early results in pilot states are positive and, as these students move forward through their course of study, the CCA dataset will provide a more complete picture of the effect of these programs.

It is important to recognize and accept that the early results from states and institutions implementing these Game Changers did not happen overnight. They are the result of intentional and committed action to change how student support services are delivered and to deliberately improve success for their underserved student populations. Other states and institutions can realize similar results once they commit and act to implement these reforms so that than can improving the likelihood of success for underserved populations.