

# What We Are Learning About Guided Pathways

## Part 1: A Reform Moves From Theory to Practice

By Davis Jenkins, Hana Lahr, John Fink, and Elizabeth Ganga

In their 2015 book, *Redesigning America's Community Colleges: A Clearer Path to Student Success*, CCRC researchers Thomas Bailey, Shanna Smith Jaggars, and Davis Jenkins argued that for community colleges to substantially improve graduation rates and narrow gaps in completion among student groups, isolated programmatic interventions will not suffice. Synthesizing two decades of research on community colleges—and drawing on research in behavioral economics, organizational behavior, and cognitive science—Bailey, Jaggars, and Jenkins argued that colleges needed to fundamentally redesign their programs and support services in ways that create clearer, more educationally coherent pathways to credentials that in turn prepare students for success in the workforce and further education in fields of economic importance to their regions.

These “guided pathways” reforms address a fundamental problem with how community colleges are organized: Because these colleges were founded with the mission of providing broad access to higher education, they focus on attracting students with dozens or hundreds of programs. But students are often left to their own devices to pick a course of study and piece together their schedules based on often confusing and incoherent class lists and program information. In these “cafeteria colleges,”<sup>1</sup> a majority of students do not complete a credential, and even those who do often waste time and money on courses that do not count toward a community college credential or a bachelor’s degree. Advising and other supports are available, but students have to seek them out, and the students who need these services most are often the least likely to use them. Students from educationally and economically disadvantaged backgrounds, who tend to be disproportionately represented at community colleges, are often poorly prepared to navigate the college experience, which exacerbates equity gaps.

At their core, guided pathways reforms involve clearly mapping programs to specify course sequences, progress milestones, and program learning outcomes so that students know what they need to do to prepare for a career and further education and training in their field of interest. With program maps as guides, students are supported from the very beginning of their college experience to explore career and academic options, choose a program of study, and develop a full-program educational plan. The program maps simplify students’

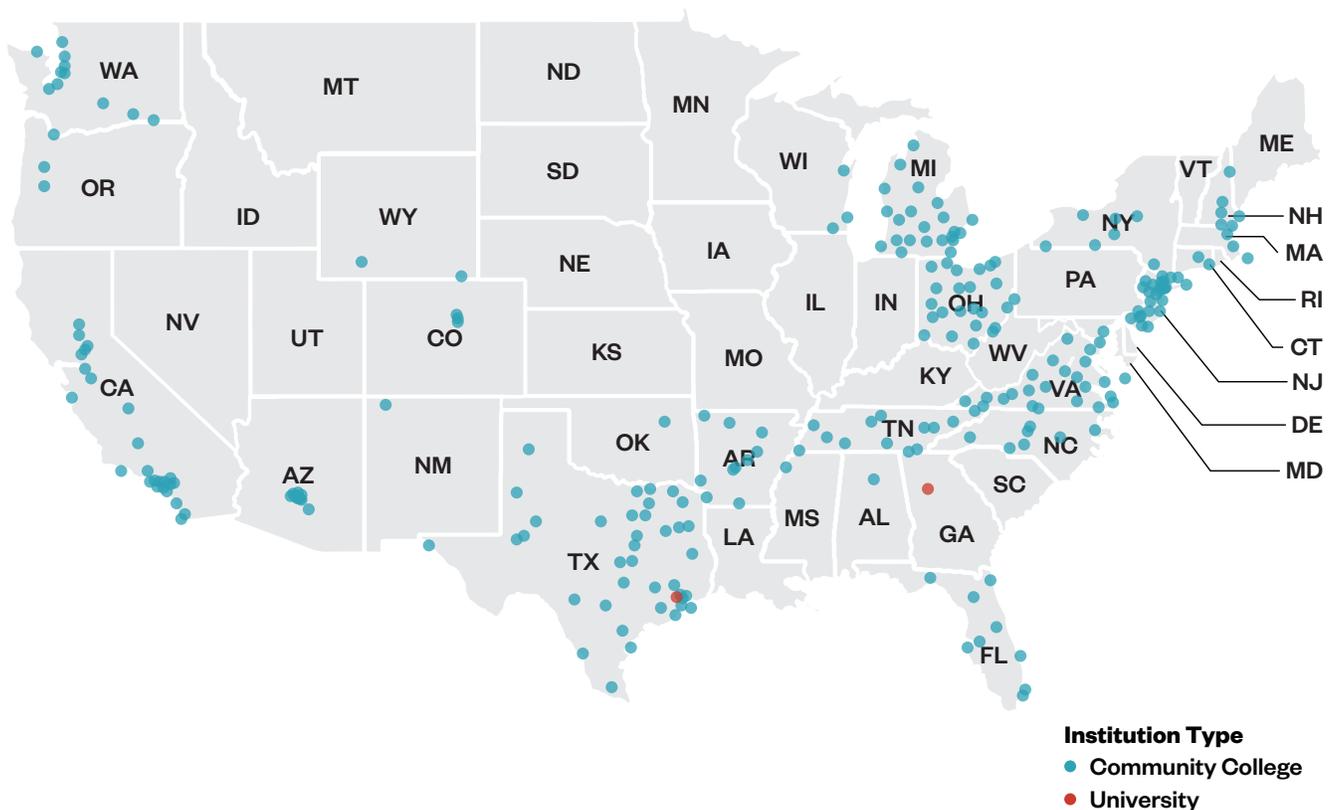


**Guided pathways reforms involve clearly mapping programs to specify course sequences, progress milestones, and program learning outcomes.**

decision-making, and their academic plans motivate them by showing them what they have accomplished and how much further they have to go to complete their programs. With every student on an academic plan, colleges are better able to provide predictable schedules, frequent feedback, and targeted support to help students stay on track and complete their programs on time. And with programs clearly mapped, faculty are better able to ensure that students are building the skills across their programs that they will need to succeed in employment and further education.

The guided pathways approach has become a national reform movement in community colleges. Major national initiatives such as the American Association of Community Colleges' (AACC) Pathways Project are helping colleges throughout the country to implement the reforms and refine the model. Higher education agencies and statewide organizations such as the Student Success Centers are also facilitating guided pathways reforms in numerous states, including Arkansas, California, Connecticut, Michigan, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Tennessee, Texas, Virginia, and Washington. As shown in Figure 1, as of spring 2018, more than 250 community colleges have committed to undertaking large-scale guided pathways reforms as part of national, state, or regional efforts; many other colleges are doing so on their own.

**Figure 1.**  
**A National Movement: Colleges Implementing Guided Pathways**



## Guided Pathways: More Than Program Maps

Guided pathways reforms can be broken into four main practice areas:<sup>2</sup>

1. mapping pathways to student end goals,
2. helping students choose and enter a program pathway,
3. keeping students on path, and
4. ensuring that students are learning.

As described below, in each of these areas, colleges need to make changes in their mindset about institutional practice and policy for pathways reforms to be implemented effectively.

### Mapping Pathways to Student End Goals

In the guided pathways model, colleges typically organize programs into broad career-focused fields, or *meta-majors*, which help current and prospective students and others understand the range of program offerings. Faculty and student services staff work together—along with employers and four-year transfer college partners—to map out every program, indicating which courses students should take in what sequence and highlighting courses that are critical to program success, along with cocurricular requirements and progress milestones. Rather than referring students to an algebra–calculus track by default, colleges guide students to take math courses that are relevant to their field of interest.<sup>3</sup> Information on program requirements is easily accessible on the college’s website so students can find out what courses they must take, how long it will take them to complete their chosen program, and what opportunities for employment in the field or transfer to a four-year program are available to program graduates.

#### Meta-Majors by Another Name

Few colleges use the term *meta-majors* to describe their program groupings. Colleges generally use other terms, including:

- academic and career communities
- academic and career pathways
- areas of interest
- focus areas
- institutes
- pre-majors
- schools

**Figure 2.**  
Rethinking Program Mapping

FROM		TO
Alphabetical program lists	>	Academic and career communities (meta-majors)
A la carte courses (distribution requirements and electives)	>	Program maps with designated course sequences, critical courses, and cocurricular requirements
Algebra as default math requirement	>	Program- or field-specific math requirements
Certificates and degrees as disconnected credentials	>	Certificates or certifications embedded in degree pathways
Unclear connections between programs and career and transfer options	>	Clearly specified career and transfer opportunities and requirements for all programs

## Helping Students Choose and Enter a Program Pathway

Under the pathways model, colleges redesign the new student experience to help students explore career and college options, choose a program of study, and develop a full-program educational plan early on. Undecided students begin homing in on a program by choosing a meta-major, such as social and behavioral sciences; science, technology, engineering, and mathematics (STEM); or health. The first-term curriculum for each meta-major includes an introductory course in the student’s field of interest and a course centered on college and career planning and success, in which students are required to research career and academic interests. Students work with an advisor to develop a customized full-program educational plan by the end of the first term.

In place of prerequisite remedial coursework—which research by CCRC and others suggests diverts too many students onto a remedial track rather than building their skills for college<sup>4</sup>—colleges offer college-level courses with integrated supports in pathway-appropriate math and English and other foundational courses in students’ field of interest. The goal is for all students to complete most of their core introductory courses in their first year.

Colleges work with K-12 systems to help students explore career and college interests while they are in middle and high school and to prepare them to enter a college-level program of study in a field of interest directly after high school. As increasing numbers of high school students take courses at community colleges,<sup>5</sup> colleges are using courses they offer through dual enrollment or dual credit arrangements to help students explore their interests.

### Entering a Pathway: Sinclair Community College

Sinclair Community College has revamped its intake system so that all entering students are helped to explore options and interests. Students who have not decided on a major explore their strengths and interests by taking career assessments and investigating career fields associated with the college’s six career communities (meta-majors). By the end of the first term, students are encouraged to pick a career community and to develop a full-program career and transfer plan that they and the college will use to monitor their progress toward completion.

**Figure 3.**  
Rethinking Student Onboarding

FROM		TO
Job and transfer support for students approaching completion	>	Career and college exploration and planning for all students from the start of college
Current semester schedules	>	Full-program educational plans
Academic assessments of students’ readiness for college-level work	>	Holistic assessments of students’ plans, goals, and challenges
Prerequisite remediation	>	Corequisite academic support
Algebra and English composition courses as college gatekeepers	>	Courses (not just math and English) critical for program success
A la carte dual credit courses in high school	>	Exploration of career/academic pathways beginning in high school

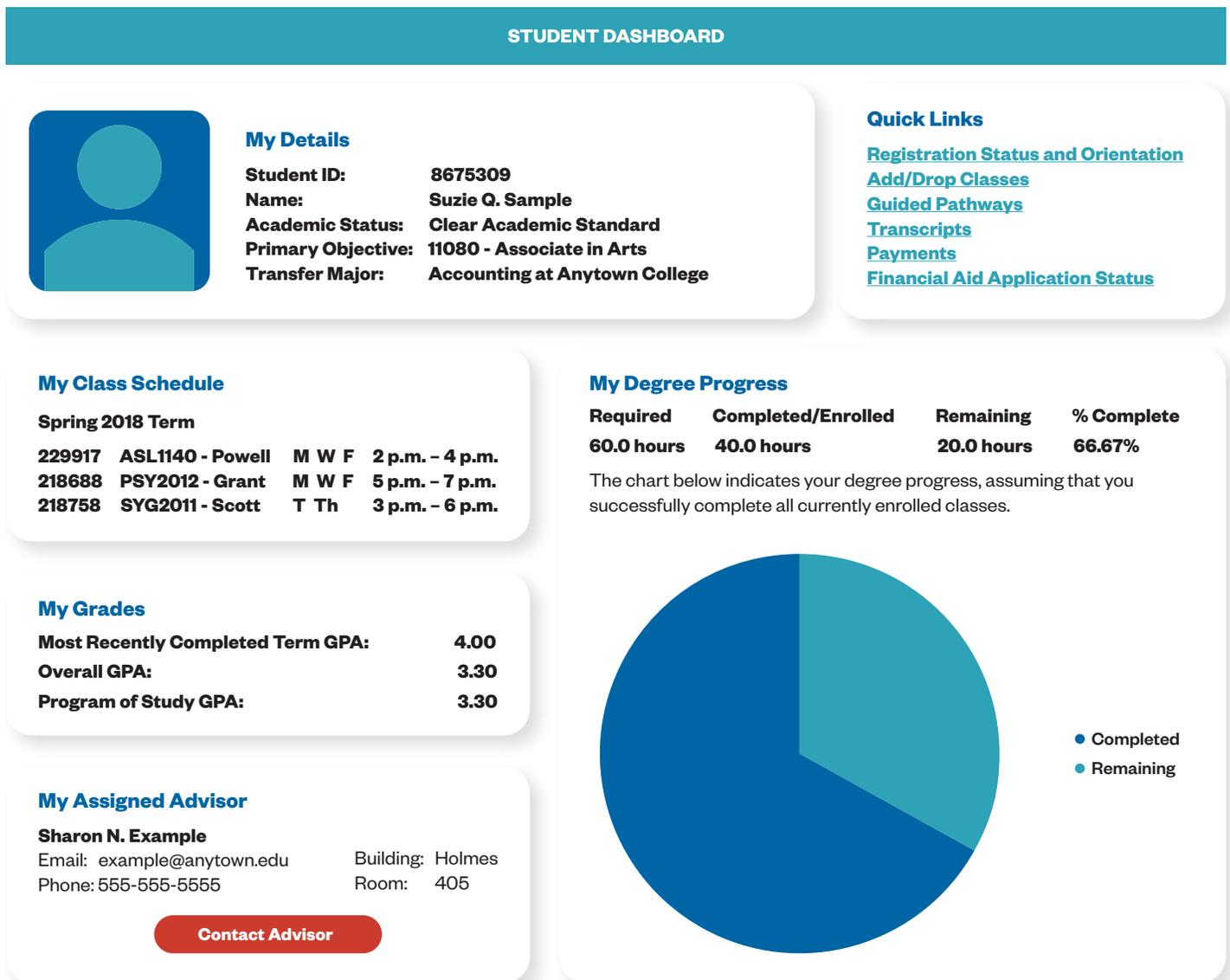
## Keeping Students on Path

Under the guided pathways model, advisors know which program each student is in and can see how far along students are toward completing their program plans. Likewise, students can easily see their progress and what they need to do to complete their program—for instance, via an online dashboard like that shown in Figure 5. Using advising technologies, advisors and students receive alerts when students deviate from their plans or struggle in a critical program course, and policies and supports are in place to help students get back on track as soon as possible. Counseling is provided to students who are unlikely to be accepted into limited-access programs, such as nursing, to redirect them to a more viable path to credentials and a career. Colleges schedule classes to ensure that students can take the courses on their educational plans when they need them, can plan their lives around school from one term to the next, and can complete their programs within their intended timelines.

**Figure 4.**  
Rethinking Student Advising

FROM		TO
Information dump at orientation		Support for major decisions along students' paths
Class scheduling based on what suits the college's schedule		Class scheduling planned to fit students' plans and schedules
Student progress gauged based on full-time vs. part-time status		Student progress conceived of as on-plan vs. off-plan
Advising and teaching thought of as two separate endeavors		A student-support environment where advisors teach and teachers advise
Course registration as a task where students self-advise		Course registration monitored by advisors to ensure students register for the right courses on their plan

**Figure 5.**  
Example of an Online Dashboard Allowing Students to Monitor Their Progress



## Ensuring That Students Are Learning

In the pathways model, program learning outcomes are aligned with the requirements for success in further education and employment in a related field. Faculty members assess whether students are mastering learning outcomes as they progress through a program and use the results to improve instruction in their programs. Some colleges are exploring ways to document student learning with portfolios and other methods beyond just grades.

Colleges work to ensure that teaching is effective, emphasizing collaborative, active learning that is relevant to students' field of interest. This includes teaching and learning in the classroom and outside the classroom, such as through internships, co-ops, service learning, or project-based learning.

For example, to help students gain real-world experience and add another dimension to their learning, Cincinnati State Technical and Community College in Ohio requires that students in all programs participate in a paid, four-credit cooperative education (*co-op*) experience in order to graduate. The co-ops help students explore career options, connect with job opportunities in their field of study, and apply what they are learning in class. Co-op coordinators work with students and employers to set learning goals for each student's experience.

Co-ops align with the guided pathways model in that they help ensure that programs are designed with preparation for careers in mind and that learning outcomes are embedded in program coursework.<sup>6</sup>

**Figure 6.**  
Rethinking Teaching and Learning

FROM		TO
General education learning outcomes	>	Meta-major learning outcomes
Generic general education courses	>	Contextualized general education courses
In-class learning	>	Learning both inside and outside the classroom
Student transcripts	>	Grades and portfolios used together to create a rich picture of student learning

## Promising Evidence From Early Adopters

Before guided pathways, community college reforms tended to be piecemeal, targeting small groups of students or one component of the student experience. Initially positive results generally faded over time and had little effect on the ultimate goal of improving graduation rates and other institution-level indicators of success. In contrast, the guided pathways model calls for a full institutional redesign to ensure that reforms move the needle on success for large numbers of students and close gaps in achievement for students from underserved groups.

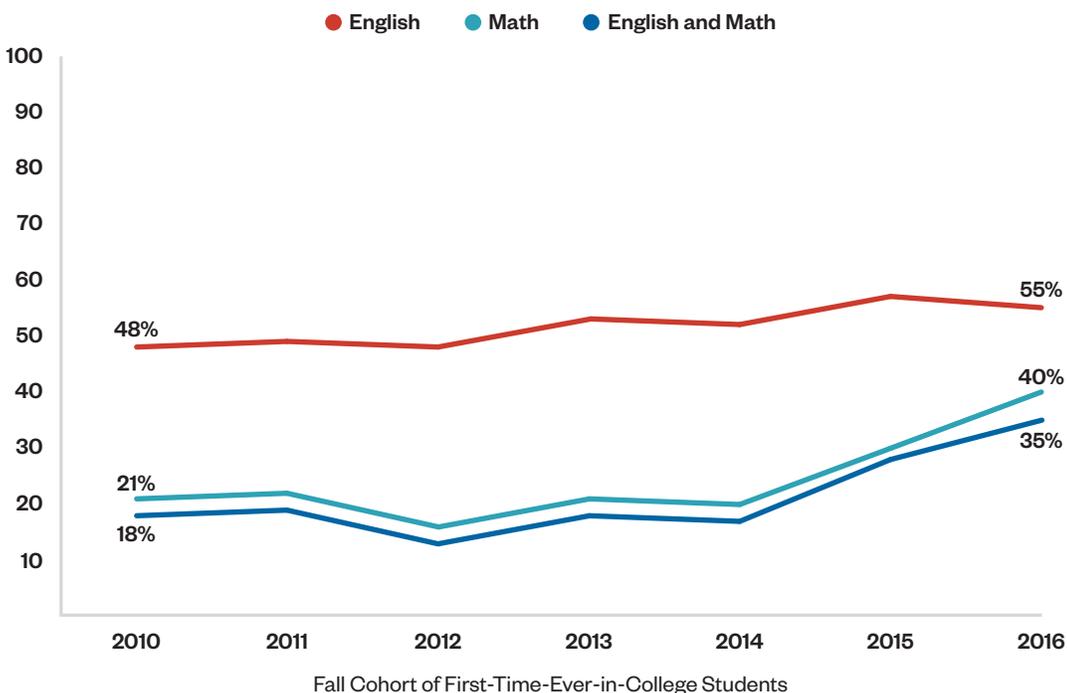
Because colleges have only recently begun implementing the full slate of guided pathways reforms, which take multiple years to implement completely, we are only beginning to see the early impacts of guided pathways. (For a timeline of guided pathways implementation, see Part 3 of this packet.) Colleges that were early adopters are seeing improvements in students' early momentum indicators,<sup>7</sup> such as the number of college credits they earn in the first year, their completion of gateway math and English courses in the first year, and the number of courses in a program they complete in the first year—all of which research suggests are leading indicators of higher completion rates over a longer period.<sup>8</sup> Colleges that have been working on these reforms for several years are also beginning to see impacts on longer term outcomes, such as graduation rates.

## Gateway Course Completion in the First Year

Cleveland State Community College in Tennessee has revamped its intake system for students to speed their entry into college courses. All students choose a career community (the college's term for meta-major) when they enroll. In the past, most students had to go through a sequence of prerequisite remedial courses in math, writing, and reading before they could take college-level math or English. Now, all new students are enrolled in college-level math and English. Those needing academic support (as indicated by lower scores on the ACT) are required to take a corequisite support course. In the past, most students also were advised to take algebra whether or not it was relevant to their program of study; now, students take math courses aligned with their career community, and most students are in programs that require statistics instead of algebra. As a result, the college has more than doubled the rate at which students complete both gateway English and gateway math in the first year (from 17 percent among fall 2014 entrants to 35 percent among fall 2016 entrants). Research by the Tennessee Board of Regents indicates that, historically, degree-seeking students who passed college-level English and math in their first year were much more likely to earn a college credential than were those who did not.<sup>9</sup>

**Figure 7.**

First-Year Completion of College Math and English at Cleveland State Community College



## Increased First-Year Momentum and On-Time Graduation

Lorain County Community College in Ohio has been implementing reforms related to guided pathways since 2012, including organizing and mapping programs in its career pathways and redesigning advising to ensure that all new students are helped to explore career and college options and develop completion plans. During this time, Lorain has

seen improvements in several indicators of student success. Between 2010–11 and 2014–15, the fraction of students completing nine credit hours in their program of study in their first year increased from 19 percent to 30 percent. The three-year graduation rate for first-time, full-time students went from 8 percent for the 2008 cohort to 23 percent for the 2014 cohort—and at the same time, the number of excess credits earned by degree completers decreased, so students were earning degrees more efficiently. The number of credits on the transcripts of students who earned associate degrees decreased 7 percent from 2012–13 to 2016–17, saving students a substantial amount of money.<sup>10</sup>

## On-Time Graduation Rates

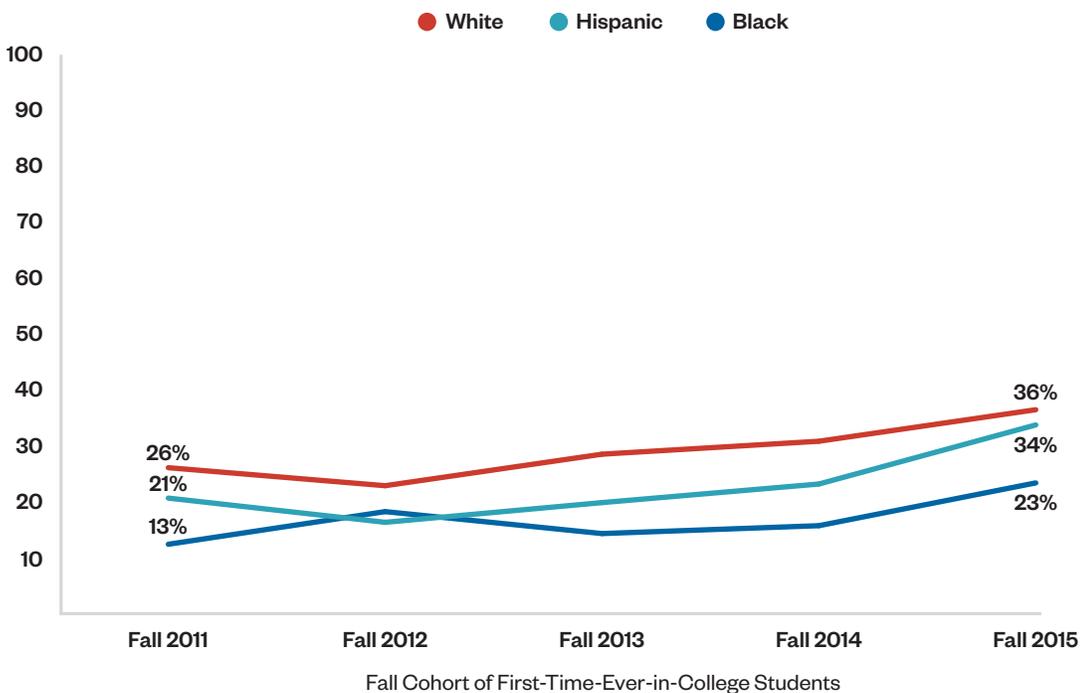
Indian River State College in Florida has been a national leader in creating a culture focused on student success and in implementing guided pathways, including:

- creating individual education plans for students based on program maps,
- enhancing advising,
- adding supports in gateway courses in subjects beyond math and English,
- improving the process for exploring programs and choosing majors, and
- making it easier for students to get the courses they need by creating yearlong course schedules.

In the wake of the changes, the college has seen increases in its graduation rates for all student groups in the last five years, as seen in Figure 8, which shows the percentage of students graduating in two years.<sup>11</sup>

**Figure 8.**

Two-Year Graduation Rates of First-Time, Full-Time Students at Indian River State College



## Student Experiences With Pathways

In interviews with 149 students at the City Colleges of Chicago, most said they were enthusiastic about the program maps and enhanced educational planning that the colleges had implemented starting in 2010 as part of a guided pathways reform called “Reinvention.”<sup>12</sup> A majority of students said that the program maps, individual plans, and academic monitoring were very helpful and motivated them to complete their studies. For some, having these systems and supports in place took the stress out of knowing if they were on the right path and whether their courses would count toward degrees and transfer.

Some were concerned the maps might restrict their ability to choose alternative courses or make it difficult to change majors, and some said they were overwhelmed by seeing the complete, multiyear plan. Students also experienced problems during the colleges’ transition to an upgraded student information system designed to improve monitoring of students’ progress because information on program requirements was inaccurate or outdated. The colleges’ advisors have since worked with administrators to ensure the information is up-to-date. In general, advisors played an important role in helping students understand the educational planning process and make the best use of the planning resources.

**“[The educational plan] really made me feel at ease because I was able to see my next step and not have to worry.”**

**– City Colleges of Chicago student**

## Other CCRC Pathways Resources

Part 2 of this packet contains case studies of how colleges are approaching key pathways practices. Part 3 describes the process and timeline for implementing pathways and discusses how colleges can measure the effects of their efforts. CCRC will continue to conduct research on guided pathways reforms and their effects on student success and institutional performance. Consult our website for the latest findings.

## Endnotes

1. For more on the cafeteria college and the thinking behind guided pathways, see Bailey, Jaggars, and Jenkins (2015).
2. Jenkins, Lahr, & Fink (2017b).
3. For more on math pathways, see [dcmathpathways.org](http://dcmathpathways.org).
4. See, for example, Scott-Clayton and Rodriguez (2012).
5. For more on the rise and prevalence of high school dual enrollment at community colleges, see Fink, Jenkins, and Yanagiura (2017).
6. Jenkins, Lahr, & Fink (2017a).
7. For more on the concept of momentum, see Belfield, Jenkins, and Lahr (2016) and Part 3 of this packet.
8. See Jenkins and Bailey (2017) for a review.
9. Denley (2017).
10. Numbers provided by Lorain County Community College.
11. Numbers provided by Indian River State College.
12. For more on student attitudes toward guided pathways, see Fink (2017).

## References

Bailey, T., Jaggars, S. S., & Jenkins, D. (2015). *Redesigning America's community colleges: A clearer path to student success*. Cambridge, MA: Harvard University Press.

Belfield, C., Jenkins, D., & Lahr, H. (2016). *Momentum: The academic and economic value of a 15-credit first-semester course load for college students in Tennessee* (CCRC Working Paper No. 88). New York, NY: Columbia University, Teachers College, Community College Research Center.

Denley, T. (2017). *Co-requisite remediation full implementation 2015–16* (Technical Brief No. 3). Nashville, TN: Tennessee Board of Regents, Office of the Vice Chancellor for Academic Affairs.

Fink, J. (2017). *What do students think of guided pathways?* (CCRC Research Brief No. 66). New York, NY: Columbia University, Teachers College, Community College Research Center.

Fink, J., Jenkins, D., & Yanagiura, T. (2017). *What happens to students who take community college "dual enrollment" courses in high school?* New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., & Bailey, T. (2017). *Early momentum metrics: Why they matter for college improvement* (CCRC Research Brief No. 65). New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., & Cho, S. W. (2012). *Get with the program: Accelerating community college students' entry into and completion of programs of study* (CCRC Working Paper No. 32). New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., Lahr, H., & Fink, J. (2017a). *Building blocks: Laying the groundwork for guided pathways reform in Ohio*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Jenkins, D., Lahr, H., & Fink, J. (2017b). *Implementing guided pathways: Early insights from the AACC Pathways colleges*. New York, NY: Columbia University, Teachers College, Community College Research Center.

Scott-Clayton, J., & Rodriguez, O. (2012). *Development, discouragement, or diversion? New evidence on the effects of college remediation* (NBER Working Paper No. 18328). Cambridge, MA: National Bureau of Economic Research.

---

*This research overview was prepared by Davis Jenkins, Hana Lahr, John Fink, and Elizabeth Ganga. Funding was provided by the Bill & Melinda Gates Foundation.*

Suggested citation: Jenkins, D., Lahr, H., Fink, J., & Ganga, E. (2018). *What we are learning about guided pathways. Part 1: A reform moves from theory to practice*. New York, NY: Columbia University, Teachers College, Community College Research Center.

