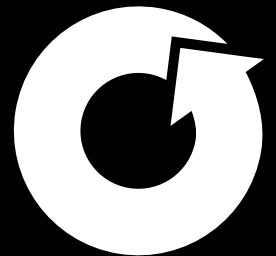


Changing Course

A Guide to Increasing Student
Completion in Community Colleges



**COMPLETION
BY DESIGN**
assistance team

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A Guide to Increasing Student
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**COMPLETION
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Completion By Design is an initiative of the Bill & Melinda Gates Foundation's Postsecondary Success Strategy.

Completion By Design Assistance Team is a project of the Tides Center.

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About This Guide

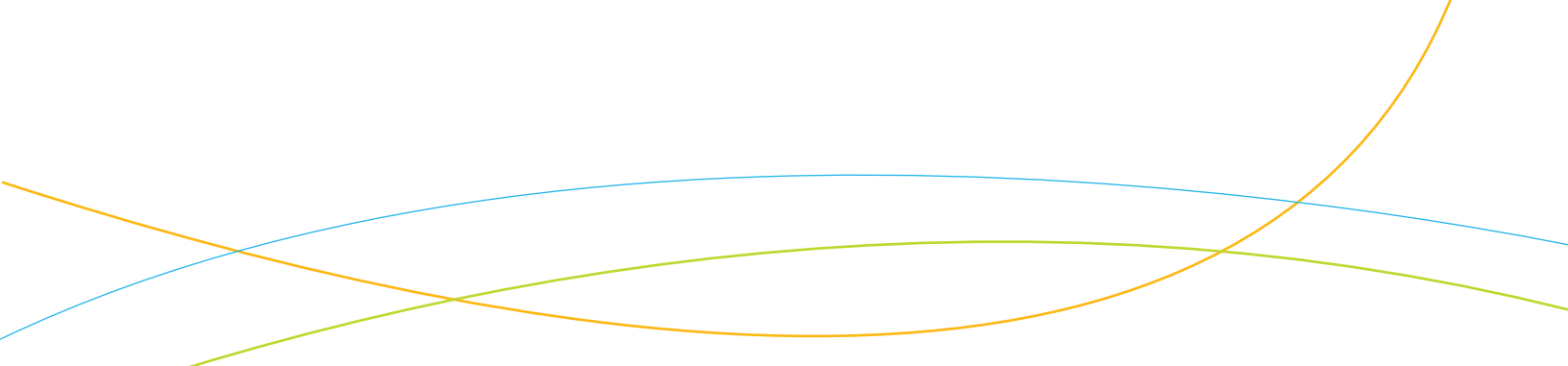
The goal of this guide is to assist community college faculty, staff, and administrators as they begin rethinking and redesigning their systems, programs, and instruction to increase student completion. The guide identifies the goals of the Completion by Design initiative; summarizes key design principles for improving completion rates; and, in the process, offers a common language for initiating this work. It is understood that the community colleges participating in the initiative bring a wide range of expertise and skills to this process and that their work will refine and advance what we know about improving student completion rates in community colleges.

A companion document, *Changing Course: A Planning Tool for Increasing Student Completion in Community Colleges*, offers additional information and strategies, including a series of self-reflective questions to assist colleges in planning their own approaches to improving college completion. The companion document will be further developed during the planning year, based on participating colleges' experiences.

In conjunction with these documents, Completion by Design has developed a Knowledge Center (<http://knowledgecenter.completionbydesign.org/knowledge-center>) to provide an online space where colleges and individuals can find and share information about innovative practices, research findings, student metrics, self-assessment tools, and other materials related to the initiative. Both *Changing Course* documents will be integrated into that online space.

Introduction

The image features a dark gray background with the word "Introduction" in a bold, white, sans-serif font in the upper left. The lower two-thirds of the image are dominated by abstract, overlapping shapes in shades of green, blue, and orange. These shapes are layered, creating a sense of depth and movement. Several thin, white, curved lines sweep across the composition, adding to the dynamic feel of the design.



The role of community colleges

Community colleges are uniquely American, having originated as junior colleges in the early 20th century to address a crucial need: to expand more students' opportunities by providing education beyond high school. Enrollment swelled throughout the century, particularly during the 1920s and 1930s and tremendously after World War II.¹ Over time, these colleges came to be known as community colleges and, as they grew, they helped the United States open the doors of higher education to broader and more diverse populations of students. Compared with their junior college predecessors, today's community colleges offer a much more comprehensive array of programs. Their commitment to open access² and affordable education and training continues to provide an opportunity for higher education to those who might not otherwise be eligible for it or able to pay for it.

Community colleges now educate almost half of the undergraduate students in the United States and, even as community college budgets have tightened amid a recession, community college enrollment has increased by more than 20 percent: In fall 2007, two-year colleges were serving about 6.8 million students; in fall 2010, that number had risen to an estimated 8.2 million.³ Among these students, there is no single "type." Community colleges serve large populations of low-income students, students from ethnic and racial backgrounds that are generally underrepresented in four-year institutions, adults with work experience, younger students straight from high school, and students who are the first in their families to attend college.⁴ The colleges address a wide variety of education needs, offering developmental education, associate's degrees, preparation for transfer to four-year institutions, certificates, and other vocational opportunities to prepare for specific jobs. They also help people improve their employment skills for local industries, and they strengthen communities through their broad offerings in continuing education.

The value and challenge of completing community college

Community colleges serve as a bellwether of American opportunity. To the extent that these institutions, working in conjunction with K–12 public schools and other colleges and universities, prepare low-income and nontraditional students for further education and for well-paying jobs, they help the United States make good on its promise of education and economic opportunity. In the United States:

- In 2009, high school dropouts were more than twice as likely to be unemployed as college graduates.⁵
- Adults with an associate's degree earn one third more than those with only a high school diploma.⁶
- Adults with at least a bachelor's degree earn about 70 percent more than those with only a high school diploma.⁷
- By 2018, almost two thirds of all American job openings are projected to require some sort of post-secondary education.⁸

In recent years, as a higher education degree has become more important for finding and keeping a good job, community college completion rates have remained low and have even declined slightly. Among students who began at a public community college in 1999, roughly 23 percent earned a credential (that is, a certificate or an associate's degree) within three years. Among those who began in 2005 (the most recent year for which data are available), roughly 21 percent earned a credential after three years.⁹ Among black and Hispanic students first enrolled in 2005, completion rates were significantly lower, with about 12 percent and 16 percent, respectively, earning a credential within three years.¹⁰ Six-year completion rates for all students were also low, with fewer than 36 percent of students who began at a community college in the 2003–04 academic year earning a certificate or degree within six years.¹¹

By and large, community colleges, as currently designed, are not student-centered and, thus, are not set up to maximize student completion. Navigating the relatively unstructured course and program options at a community college campus can be intimidating and confusing for incoming students. Students' experiences can be complicated by several common challenges, including lack of preparation,¹² confusion about placement tests and developmental education,¹³ and lack of understanding about how to define or attain their education or career goals.¹⁴

Many students get lost in the array of academic sequences, workforce programs, transfer options, and continuing education opportunities available to them. Colleges may assume that students will figure out their education paths over time, but this assumption is particularly problematic for students who have outside pressures that limit their time in college, such as employment, child care, and other responsibilities. "Finding their way" and making good choices about coursework can be especially challenging for the large percentage of community college students who are first-generation college students or who, for other reasons, lack financial support and knowledge about college.¹⁵ Recent studies suggest that community colleges can assist students by providing more coherent college-level programs of study that are better aligned with student services.¹⁶ Another study

suggests that community college students often do not receive the information they need to make good choices about their education.¹⁷ Unfortunately, most community colleges do not have the resources to provide the range and depth of supports that students need in order to identify their career and education goals and to enter into college-level programs of study that are aligned with those goals.¹⁸ Many colleges do not excel in providing students with information about the differences between available programs of study, in terms of both requirements (such as course prerequisites) and career implications. Additionally, colleges may need to target information more effectively to students based on the development of students' career goals and education progress over time. At many community colleges, student support services are disconnected from the instructional enterprise. Completion by Design aims to support participating colleges in aligning all their services and programming to focus on student completion.

The completion imperative

Community college completion rates would seem to be a logical indicator of how well colleges serve their students. However, the diverse goals of community college students have made it difficult to reach consensus about some basic questions related to completion: What counts as "completion" — a degree,

MANY STUDENTS NEED DIRECTION

A study of student experiences in Ohio found that students "were clear, by and large, about why they wanted to be in college: to escape low-wage work and improve their standard of living. As one student put it, 'I'm not going to be doing this fast food all my life.'" But the study also found that, once they were in college, students did not know what they really wanted from the college, including their own academic goals or what courses to take to reach those goals. As one older adult student said, "I'm illiterate as far as college; I just always wanted to come back to school ... Even now I don't know what I want to take up." Another student said, "People don't realize this is a whole 'nother world ... the campus of a college ... If you come here not knowing what's going on, and you don't ask for help, you'll be lost."¹⁹

a certificate, transfer without an associate's degree, completion of coursework that leads to a better job, any or all of the above? How long should it take for a student to complete a program of study, earn a degree or a certificate, or transfer? At the core of these questions is another: What level of completion is acceptable for open-access institutions?

No matter how these questions are answered, the current low rates of student completion suggest that the education ambitions of many community college students remain largely unmet. Growing numbers of community colleges have recognized the importance of identifying and improving their student completion rates. Many have implemented reforms aimed at

doing so, but these reforms have experienced limited success, particularly in being appropriately scaled to reach broad populations of students. The relatively low community college completion rates present challenges for having a more educated workforce in the future and for retraining the current workforce to keep up with evolving needs, particularly as that workforce becomes increasingly diverse.

For more than a century, community colleges have helped to expand access to higher education for broad populations of students. The imperative now is to maintain the historical level of access while ensuring that many more students succeed in completing their certificates or degrees.

CHAPTER I

What Is Completion by Design?

The background is a vibrant yellow-orange gradient. A large, thick, orange diagonal shape sweeps across the lower half of the page. Several thin, white, curved lines are scattered across the composition, creating a sense of movement and design.

Completion by Design, an initiative sponsored by the Bill & Melinda Gates Foundation, seeks to raise community college completion rates for large numbers of students while containing college costs, maintaining open access, and ensuring the quality of college programs and credentials. This overall goal includes the following key elements:

Raising completion rates for large numbers of students. In this initiative, colleges commit to substantially increasing the number and percentage of students who earn a postsecondary credential. The initiative considers students to have completed a credential when they earn occupational certification, a state-board-recognized certificate, or a two-year associate's degree of science (A.S.) or arts (A.A.), or transfer with a credential to a college or university that grants a bachelor's degree. In addition, colleges commit to reach large numbers of students as soon as possible. Rather than starting with pilot projects focused on small numbers of students, with the intention of bringing projects to scale over time, participating colleges are expected to undertake system redesign that will enable most of their students, especially low-income students, to earn a credential in a more timely fashion.

Containing costs. To reach large numbers of students in sustainable ways, system redesign must be structured within existing or projected revenue. Finding efficiencies and increases in productivity, in part through the use of technology, will be critical in this era of scarce and, in many places, diminishing resources — especially given the need to keep community college affordable and to ensure program quality.

Maintaining open access. Community colleges have historically been committed to open access. Completion by Design is committed to maintaining this commitment to open access while simultaneously working toward increasing emphasis on completion.

Ensuring quality. Critical to the success of this initiative is making sure that students leave their community colleges with a credential of value, one that leads to opportunities for success in further education and/or the labor market.


To achieve its overall goals, Completion by Design offers grants and other forms of support, over a five-year period, to state-specific cadres of community

KEY AREAS OF EMPHASIS FOR COLLEGES

Systemic and structural change to improve program coherence. Colleges will need to rethink their major programs and services and, where appropriate, redesign them to increase student completion. In particular, this will require faculty, staff, and administrators to work together — across departments, functions, and other organizational silos — to effect systemic and structural change to improve the coherence of instructional programs and of support services for students.

Full continuum of student experiences. The initiative emphasizes the importance of rethinking services and programs across the broad spectrum of student experiences in community colleges, from the first point of contact to the time of completion. This means that college improvement efforts cannot focus on isolated best practices at any single stage of student progress, but instead must be integrated across all phases and directed toward completion.

Working at scale. From the outset, Completion by Design engages multidisciplinary teams across colleges, including state policy leaders, to plan and share strategies for improving completion rates, so that improvement efforts can be spread across campuses.



colleges that are working collaboratively to review, rethink, and, ultimately, redesign their organizational systems to raise student completion rates. Year 1 is the planning year, years 2 and 3 are the implementation phase, and years 4 and 5 are the scaling phase.

Completion by Design currently consists of four cadres – in Florida, North Carolina, Ohio, and Texas – collectively representing 20 community college campuses that, combined, serve approximately 252,000 students (see appendix B). Each cadre brings together a multidisciplinary, cross-college delegation of faculty, staff, and administrators to analyze their own college systems; to serve as models for and to learn from other systems; and to plan, implement, and analyze their improvement efforts. The initiative will provide cadres with a wide range of technical assistance and other supports, including assistance in data gathering and use; cost and productivity gains; research about implementation options; change management; policy change; faculty engagement; and meeting facilitation.

During the planning year, cadres will work with the Completion by Design Assistance Team (see appendix C) to define their respective approaches for college redesign, which will be used as a roadmap for the implementation and scaling phases. Also during the planning year, cadres will identify reforms that are needed beyond the colleges themselves. Such reforms might include revisions to state policies, funding formulas, and tuition and aid structures that can help provide better incentives for, and remove barriers to, student success. During the implementation phase, cadres will work in conjunction with community and state leaders to help bring about these broader policy transformations. Throughout the initiative, the Completion by Design Assistance Team will provide support to the cadres. The expectation is that the cadres will break new ground in understanding how to better support student success, and that lessons learned from the cadres' experiences will encourage and inform similar efforts at community colleges nationwide.

Scaling has been a challenge throughout the history of both K–12 and postsecondary reform. A recent study identifies a series of challenges that community colleges face in their efforts to bring successful innovations to scale, including state funding formulas, logistical and cultural barriers within institutions, the lack of effective mechanisms to work across institutions, grant timelines, maintaining the fidelity of program models in the cycle of replication, and the absence of long-term evaluations.²⁰ Such challenges will need to be addressed throughout the course of this initiative.

The need for strong completion pathways

So how can a community college raise completion rates for large numbers of students while containing costs, maintaining open access, and ensuring quality? Under this initiative, the chief means of achieving this goal is the development of strong completion pathways at each college. *Completion pathways* are defined as integrated sets of institutional policies, practices, and programs that are intentionally designed to maximize students' progress at each point of their community college experience, from the time students first consider attending the community college to their attainment of a credential. Developing strong completion pathways within each college – with all primary functions and structures focused on maximizing student completion – is a key attribute of a high-performing college and one of the core strategies of the Completion by Design initiative.

Developing strong completion pathways requires more than tinkering around the edges or implementing best practices at a single stage of students' progression. Colleges must revisit and be prepared to redesign all aspects of their education endeavor – to undertake systemic and structural change to improve the coherence of all instructional programming and student support services.

Completion pathways are defined as integrated sets of institutional policies, practices, and programs that are intentionally designed to maximize students' progress at each point of their community college experience, from the time students first consider attending the community college to their attainment of a credential.



The Loss and Momentum Framework

For too many community college students, the many routes into and through community college are confusing, poorly defined, and time-consuming, and are sometimes dead ends. Some of the most common impediments and momentum points, and the stages at which students commonly encounter them, are identified in Completion by Design's loss and momentum framework on page 11.

Understanding when and why a college's students are slowed down or sidetracked in efforts to earn a credential is essential as colleges consider how to develop strong completion pathways. Early in the planning year, each cadre will engage in a data-intensive Pathways Analysis, conducted in partnership with the Community College Research Center (CCRC), JBL Associates, and the RP Group (see appendix C). The analysis looks at each stage of students' progression — from first contact to completion of a certificate or degree — to understand where there is lack of system coherence, inadequate student support, or any other impediment to student success. The inquiry-based process is designed to raise and address key questions about the loss and momentum of completion efforts throughout students' college experiences, and it is intended to serve as a mechanism for continuous organizational improvement.

Measuring progress in redesign efforts

To facilitate progress by Completion by Design cadres, the initiative has identified three intermediate objectives for participating colleges. The Pathways Analysis will assist colleges in identifying barriers to student completion and tracking progress in these areas.²¹

- 1. Raise the number and percentage of students who enter a program of study leading to a certificate or degree of value for further education and/or to the labor market, and shorten the time between when students first enroll in college and when they enter a program of study.**

Target: Substantial improvement within three years, compared with the college's baseline performance.

- 2. Increase completion rates for students who have entered a program of study, and shorten the period in which they achieve completion.**

Target: Substantial improvement within five years, compared with the college's baseline performance.

- 3. Ensure that academic programs are well delineated and prepare students for a four-year college or university, and that career technical programs help prepare students for entrance into and/or advancement in the labor market.**

Target: Substantial improvement within three years, compared with the college's baseline performance.

Through these objectives, Completion by Design emphasizes the need for colleges to develop coherent and well-defined programs of study, both academic and career technical, and to get students to commit more quickly to making progress in a program. This emphasis is based on the emerging recognition that students who commit to a program of study within their first year of college, compared with their peers who do not do so, are more likely to complete a credential or to transfer to a four-year institution within five years of enrollment.

The initiative considers students to have "entered" a program when they have earned at least nine college-level semester credits (usually equivalent to three courses) in a single program.²² Course-taking patterns are a more reliable indicator of student behavior than a student's declared major or stated education objectives. Taking and passing three courses in a single program of study indicates a student's serious interest in pursuing that field. (If students are to meet this threshold, however, colleges must ensure that course sections are

Supporting Student Success: PREVENTING LOSS, CREATING MOMENTUM

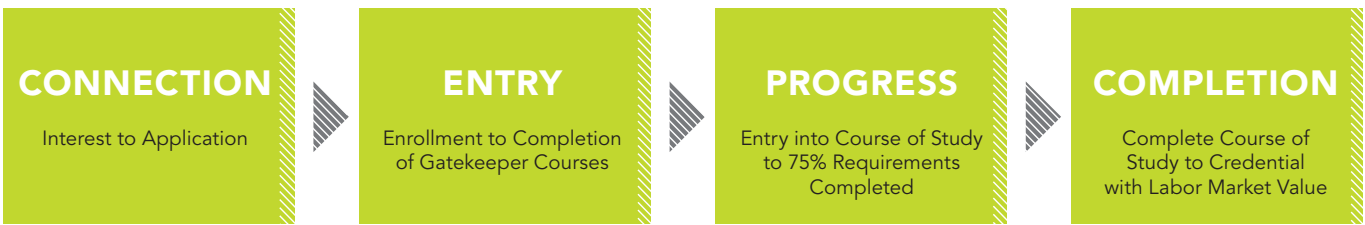
a system designed for student completion



LOSS POINTS

- Do not apply to PS
- Delayed entry to PS
- Poor college counseling leads to under enrollment, poor matching and failure to obtain financial aid for which they qualify
- Poor academic preparation
- In community colleges, 60% referred to developmental education, only 30% ever take subsequent college level courses
- Fail to enroll/pass Gatekeeper courses (i.e., entry-level math and English)
- 75% of low-income students need to combine work and school; work more than 20 hours/week; schedule changes
- Part-time enrollment means slow progress, loss of momentum
- Life happens/complex lives means many disruptions; stop out or drop out
- Limited advising leads to credit (and debt) accumulation not matched to degree attainment
- Leave with credits needed for degree except for college level math
- Transfer without credential
- Credential doesn't garner family-supporting wage job or isn't "stackable" to career that does

STUDENT PROGRESSION



MOMENTUM STRATEGIES

- Consistent college and career ready standards
- Foster college-going norms supported by peers and trusted adults
- Increase understanding of college requirements, application and financial aid processes/Improve information, matching and financial aid products
- Dual enrollment/Early College High Schools (on-ground, online options), AP credit
- Take college placement exam in high school
- Enrollment directly from high school
- Diagnostic assessment and placement tools
- Mandatory "intrusive" advising, attendance, life skills courses, declared courses of study linked career pathways
- Improved academic catch-up (prevention, acceleration, supplemental instruction, concurrent enrollment, contextualization, and competency-based digital prep)
- Aggressive financial aid application support
- Course redesign to go further, faster, cheaper
- Innovative programs to incent optimal (e.g., high intensity, continuous) attendance
- Leverage technology to make real-time feedback, intensive advising, accelerated, flexible, and student-centered learning more available
- Intentional, accelerated, competency-based programs of study leading to credentials in high-demand fields like STEM and health care
- Provide emergency aid to deal with unexpected life events
- Mandatory "intrusive" advising
- Transfer with credentials incentives
- Remove barriers to graduation (e.g., fees, forms)
- Learn and Earn programs that combine credential attainment and work experience in field of study toward career pathway

STUDENT DATA SYSTEM (From Day 1 to Completion)

STUDENT ENGAGEMENT

LEADERSHIP FOCUSED ON COMPLETION (Faculty, Administration, Trustees)

Bill & Melinda Gates Foundation, 2011

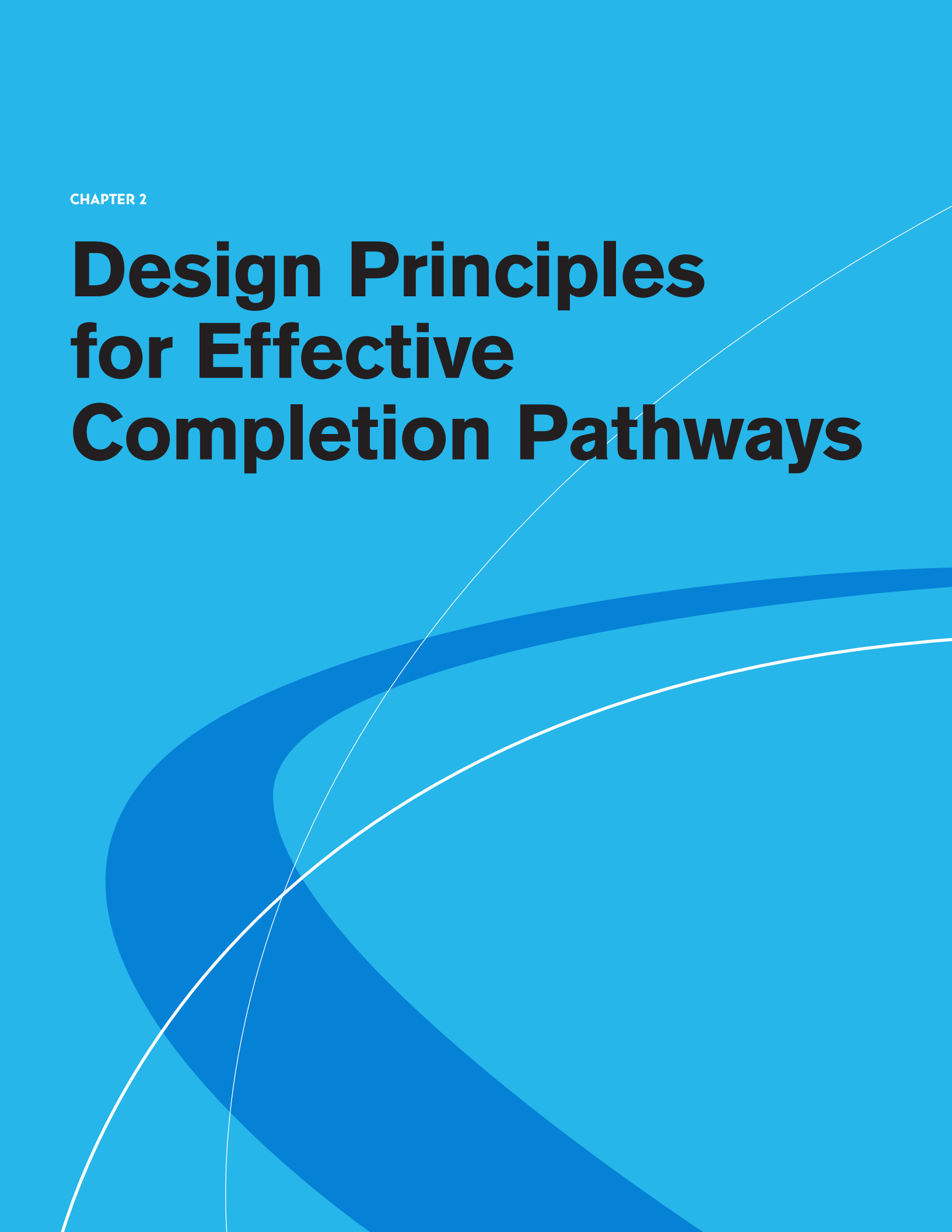
available at convenient times and locations.) Students are considered to have completed a program, or field, of study if they have received a postsecondary credential in that program or field.

While it is not expected that all students will be able to enter a program of study within the first year, colleges are encouraged to prepare students to do so as soon as possible. For most colleges, this will require undertaking reforms related both

to developmental education and to gatekeeper courses. These efforts necessitate the engagement of all faculty members – across academic and career and technical education departments and in developmental education – to work with administrators and staff to design and implement approaches to get students “up to speed” and into a program of study quickly, and to complete that program in a timely manner.

CHAPTER 2

Design Principles for Effective Completion Pathways

The background is a solid light blue color. Overlaid on this are several abstract, curved lines. A prominent, thick, dark blue curved line starts from the bottom left and sweeps upwards and to the right. A thin, white curved line follows a similar path but is positioned lower and further to the right. Another thin, white curved line starts from the top right and curves downwards and to the left, crossing the other lines.

There is no single model for the development of effective completion pathways across colleges. However, a handful of design principles, drawn from research and practice and described in this chapter, stand out as promising for supporting college efforts to substantially increase student completion. (In addition, the planning tool associated with this guide provides colleges with information about the range of practices — many of them small and limited in scope — that community colleges have experimented with to improve student completion rates.²³)

I. Seamlessly connect such areas as academics, career and technical education, professional development, and student supports with K–12 schools, transfer partners, and employers.

Ultimately, improving completion rates will require strong partnerships at both ends of the community college continuum. Colleges need to work closely

with K–12 systems to help students and teachers understand the knowledge and skills that students will need in order to be ready for college-level coursework at a community college. Early outreach to students, with clear information about expectations, and early diagnostic testing that includes strategies for addressing specific deficiencies are both critical to ensuring that more students are ready for college prior to enrollment.

Colleges also need to form partnerships with four-year institutions and with business and industry, to fully understand the knowledge and skills that students will need in order to be successful once they leave the community college. Studies suggest that students can be encouraged to transfer when community colleges and local universities share a “transfer-going culture” with common academic language and expectations. When this culture

FROM PLANNING TO IMPLEMENTATION

As colleges determine specific areas of focus for their redesign efforts, they may benefit from the development of tools that provide greater detail about research and practice related to these areas of implementation. For example, inquiry guides on specific design principles can be useful in providing faculty, staff, and administrators with discussion points to determine next steps in the reform process.

The Bridging Research, Information, and Culture (BRIC) Initiative, a project of the RP Group, has developed the following inquiry guides:

1. Turning Data Into Meaningful Action
2. Assessing Student Learning Outcomes
3. Assessing Strategic Intervention Points in Student Services
4. Assessing Basic Skills Outcomes
5. Research and Assessment for Noncredit Colleges and Programs
6. Maximizing the Program Review Process
7. Assessing and Planning for Institutional Effectiveness
8. Using an Equity Lens to Assess Student Outcomes
9. A Model for Building Information Capacity and Promoting a Culture of Inquiry

Based on the needs of participating colleges, the Completion by Design Assistance Team can develop similar guides focused on specific areas of implementation.

Source: RP Group. (2009–2011). Bridging Research, Information, and Culture (BRIC) Initiative. Retrieved from <http://www.rpgroup.org/projects/BRIC.html>

exists, it informs course curriculum and helps prepare and motivate students to continue their education at four-year institutions.²⁴ Other factors, such as aligning student supports with instruction, are also likely to be important for achieving high transfer rates. Likewise, strong partnerships with business are important for informing community colleges and their faculty, staff, and administrators about changes in labor market trends and about the preparation of college graduates for employment.

2. Provide coherent and clear sequences of courses within college-level programs of study, communicate them clearly and consistently to students, and enroll students as quickly as possible in a program.

Many students enter community college without clear goals and, often, without clear information about what is necessary to complete a program of study.²⁵ Students are less likely to be discouraged or drop out if, from the outset, they have specific information about the available education options (that is, programs of study) and about what is required (such as program prerequisites) for different college or career paths. This information needs to be provided to students in interactive and engaging ways, such as through online and face-to-face opportunities for education and career planning. Moreover, in order to provide this information clearly to students, many colleges may need to rethink and, where appropriate, reorganize their array of credential and degree programs.

3. Define student competencies and learning outcomes within and across programs, in order to facilitate quality and to accelerate learning.

Identifying the learning outcomes that are expected of students at each step along a program of study can clarify for students the skills they need and why they need them. In addition, defining learning outcomes can also assist in program restructuring efforts, by helping to clarify the key objectives for student learning throughout a course sequence, from student

entry to the awarding of a credential. For example, by clearly defining entry-level competencies for college-level coursework, academic programs can facilitate coordination with K–12 schools and with developmental education programs within their own college. Defining student competencies can also assist colleges in developing strategies to offer students college credit for pertinent work-related experience. In addition, the defining of learning outcomes can assist in credentialing processes, to ensure that students are obtaining the critical knowledge and skills needed for success when they leave college, whether their next step is further education, a career, or both.

4. Improve student engagement, including through education planning, career planning, and individualized and interactive forms of alerts, messaging, and updates.

While much of the focus on student engagement relates to students' engagement with their coursework or involvement in extracurricular activities, engaging students through student services is also critical. In a recent study, community college students described their experiences with course counseling, and academic advising in general, as one or more isolated or uncoordinated events.²⁶ Counselors' workloads are large, and students often become frustrated with the long lines or, once they finally have an appointment, with the lack of helpful information they receive. College efforts to improve completion rates may need to include targeted incentives (for example, some colleges are experimenting with providing students with additional financial aid to incentivize course completion) and support services to help students who are facing a wide range of pressing life challenges. Many incoming students need help with education and career planning in order to identify the program of study that may be the best fit for them. Many students also need to receive information and support on an ongoing basis as they progress through the various phases described in the loss and momentum framework. Information should

“Almost all community colleges support innovative practices, but ... if substantive and broad-based change is to occur in the institution, leaders need to corral ... innovators into a common force and focus their energy and common interest on the larger picture.”

— *Terry O'Banion, Twenty Observations about Change Related to Becoming a More Learning-Centered Institution, October 9, 2002*



be provided in multiple formats, including those most used by today's students (such as social networking sites and text messages); high-touch opportunities (such as face-to-face or telephone contact) should be available for the students who most need them.

5. Customize, contextualize, and differentiate instruction to improve and deepen student learning.

Students are much more likely to complete a program of study if they are engaged in their learning and if they perceive their learning to be meaningful. Contextualized instruction aims to help students make connections between what they are learning and their own experience (including relating academic learning to careers or technical fields of study). Contextualizing instruction can be a complex process. Some efficiencies are created by teaching new information in the context of student experiences, but the time and staffing needed to present material in context vary greatly, depending on the skill levels of students, the complexity of the material, the skills being mastered, and the application of those skills. For example, teaching mathematics skills in context with technical skills for auto repair may positively influence student retention and create deeper learning, but this strategy can increase a student's time to completion unless the number of mathematics competencies required in the sequence of mathematics courses is reduced to include only those critical for mastery of the technical subject matter. Any curricular redesign that incorporates a specific teaching strategy, such as contextualization, would need to take into consideration the broader picture of assessment, curriculum development, staffing, and scheduling. Such redesign would also need to consider what competencies are needed for each particular course and sequence of courses. All of this makes curricular redesign a challenging task. Colleges need to determine whether they provide the appropriate professional development to enable faculty to engage in instructional change processes that allow for contextualization and differentiation.

6. Make it a responsibility of all instructional programs and student services to help students catch up academically, using such strategies as acceleration, modularizing courses, and integrating developmental education within or alongside entry-level coursework.

Many community college students never make it out of the developmental course sequences they are required to take prior to enrolling in college-level, credit-earning courses; thus, many students never even enter a program of study, much less complete a certificate or degree. Colleges must rethink the role of developmental education, to ensure that it is treated not as a separate entity but as an integral part of the college and curriculum.²⁷ The length of developmental education sequences should be examined, and faculty at all levels should work to identify diagnostic assessments, acceleration, and modularized instruction that can help move students through developmental education more quickly and cost-effectively. Through joint teaching or common planning, faculty in entry-level courses can work closely with developmental education faculty to identify the best ways to meet students' needs and move them successfully through both developmental education and gatekeeper courses.

Acceleration requires the same complex series of collegewide discussions and reforms as contextualization. It also requires a similar subset of questions and decisions regarding strategies and implications for practice: What are the advantages of the three different models of acceleration that are emerging in evidence-based practice (linking developmental and college-level courses, compressing two levels of developmental courses, and mainstreaming developmental students)? Which model best fits which college context? What are the implications for scheduling, faculty workloads, curriculum alignment, costs, academic standards, professional development, and articulation? These are the kinds of questions that cadres and participating colleges will explore with the Completion by Design technical assistance providers.

7. Integrate student services and instructional supports with college-level programs of study, including entry-level gatekeeper courses.

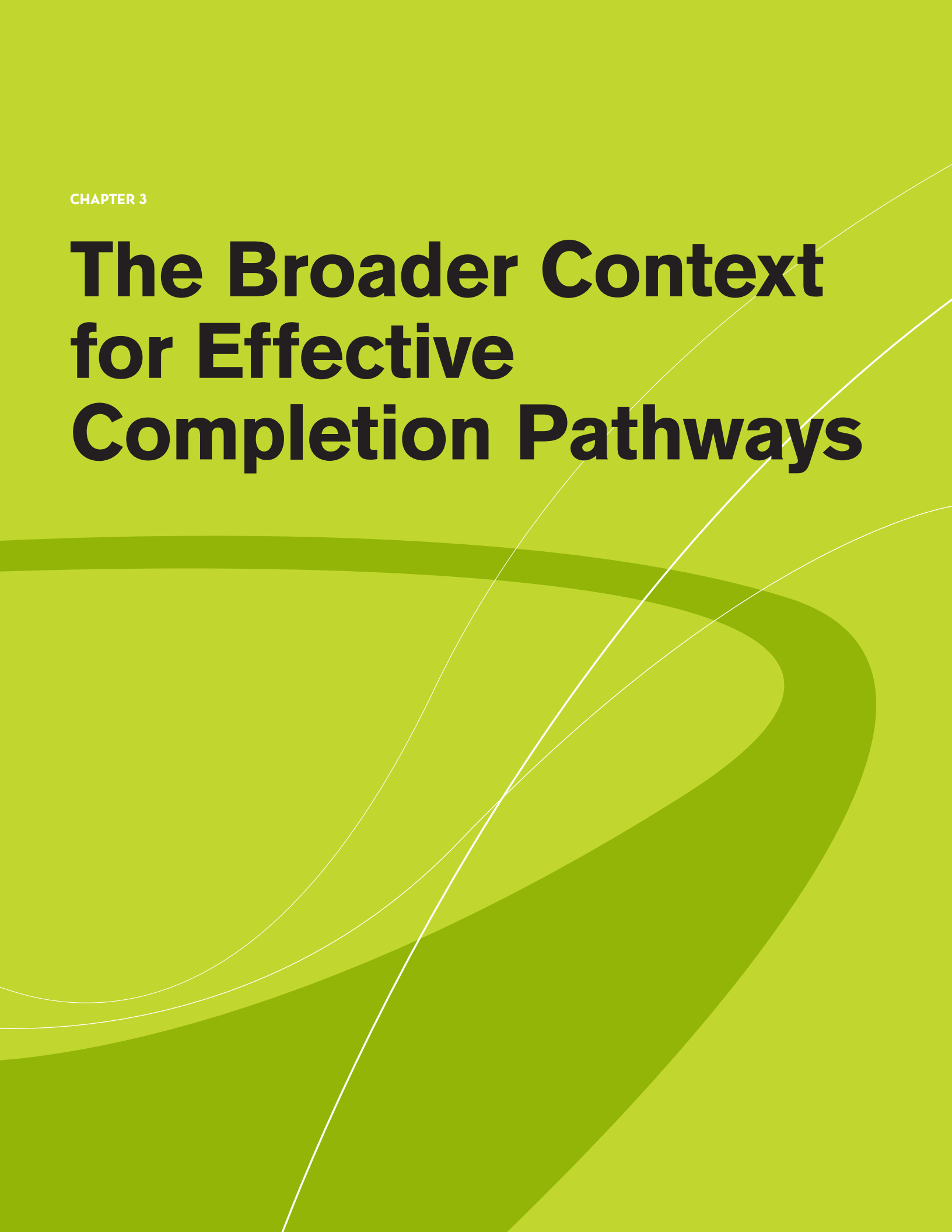
Just as developmental education needs to be an integral component of a college and its curriculum rather than merely a stand-alone department, student services must also be integrated with the academic side of an institution if colleges are to see significant improvements in student completion rates. Student services staff play an important role in instruction, and, similarly, instructional staff play important roles in counseling, orientation, assessment, placement, advising, registration, student activities, and many other support services necessary to ensure increased rates of college completion. The most promising and groundbreaking reforms aimed at getting students “up to speed” and enabling them to complete entry-level courses appear to be those that engage faculty, staff, and administrators across an institution in collaborative redesign efforts, so that instructional and support services are integrated and coordinated to meet student needs.

8. Leverage technology to broaden, improve, and reduce costs of curricular options and student services.

While technology is not a panacea, it must be an integral part of any redesign focused on increasing student completion. Interactive online resources can provide individualized counseling and education planning to most students, freeing up counselors to work closely with those students who are most in need of high-touch services. Utilizing online instructional modules may help colleges to meet specific needs of developmental education students, while freeing up instructional time for (1) more in-depth work with those students who have more serious developmental education needs and (2) working with adjunct faculty and faculty who teach entry-level courses to ensure that all students are receiving the supports they need to successfully make it through their gatekeeper courses.

CHAPTER 3

The Broader Context for Effective Completion Pathways



As the diagram on this page shows, the Completion by Design initiative recognizes the broader context in which community colleges' restructuring efforts take place. For colleges to be successful in developing strong completion pathways, they also need to develop and sustain attributes that are common to high-performing colleges, and they need to work with community and state leaders to identify and develop supportive state policies.

High-performing community colleges

Colleges' efforts to build and sustain their capacities as high-performing education institutions are essential in developing strong completion pathways.²⁸ Unsurprisingly, all of the attributes of a high-performing college require teamwork across roles and functions, since they are directed toward system integration.²⁹ Completion by Design's technical assistance providers will work with colleges to strengthen their capacities as the colleges move forward in their redesign planning and implementation. In this section, each attribute is described in relation to how it might assist colleges' efforts to improve completion rates. For each characteristic, specific, though hypothetical, examples of the attribute in action are also provided.

- **Learning- and outcomes-focused leadership.** Faculty, staff, administrators, and trustees make student learning and completion their top priorities and undertake collegewide redesign to develop and sustain completion pathways.³⁰

Example 1: The college president, working with faculty, administrators, and staff, leads an institutionwide change process that redesigns functions and roles to improve completion rates.

Example 2: College faculty teams, working with staff and administrators, review instructional programs to make them more coherent for students.

Example 3: A team of student services staff and instructional staff, working with faculty and

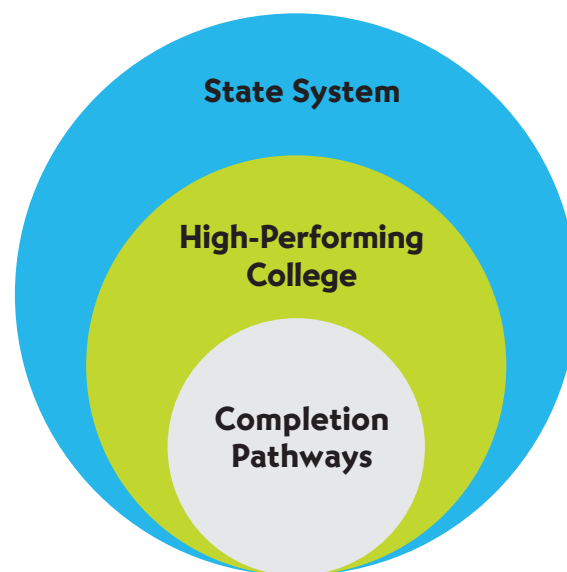
administrators, leads a collegewide process to integrate student services, instructional supports, and instructional programs to increase student completion.

Example 4: Departmental faculty teams, working with developmental education faculty, student support staff, and instructional support staff, define learning competencies for incoming students and offer better opportunities for accelerated academic catch-up.

Example 5: Adjunct faculty are fully integrated and engaged in all efforts to redesign functions and roles to improve completion.

- **Student-centered change.** Faculty, staff, and administrators gather information about student experiences and engage students in developing reforms. Researchers have found that good practice in undergraduate education encourages the

Developing strong completion pathways is a key attribute of a high-performing college, which, in turn, is influenced by several larger systems, including a state system of education.



refocusing of systems toward better engagement of students, from instruction and counseling to social and sports activities.³¹

Example 1: Teams of faculty, administrators, and staff gather survey and focus group information from students, and compare it with findings from the Pathways Analysis. Working with students, the teams review key college programs and services from students' perspectives, to make them more responsive to student needs.

Example 2: Cross-disciplinary teams of faculty and staff redesign instruction and tutorial systems to encourage more contact between faculty and students, develop reciprocity and cooperation among students, encourage active learning, give prompt feedback, emphasize time on task, communicate high expectations, and respect diverse talents and ways of learning.³²

Example 3: A team of instructors, academic counselors, student support staff, and administrators redesign academic counseling and tutoring to determine which processes should be mandatory and to direct students more actively at each step of their progress.

- **Culture of improvement and use of data.** Faculty, staff, and administrators are trained and experienced in working within and across programs to examine data regarding such issues as student loss and momentum points and associated costs, and to use that information to inform policies, practices, and instruction.

Example 1: A team of faculty, staff, and administrators engages in and leads a collegewide Pathways Analysis to examine the dynamics of student loss and momentum from connection through completion, with a focus on the rates of student entry into and completion of college-level programs of study.

Example 2: A team of faculty, staff, and administrators examines costs and productivity for various systems, services, and programs.

- **Faculty engagement and professional development.** Within and across departments, all faculty and instructional staff are actively engaged in professional development that is built into the college's organizational and reward structures.³³ These activities are directed toward strengthening instruction and advancing the college's capacity to improve learning outcomes for all students, including nontraditional students. Adjunct faculty members are offered incentives to engage in the college community, such as receiving some priority for classes and schedules, some assurances of continuing employment, and some stipends for engagement with students on campus.³⁴

Example 1: Across instructional programs, full-time and adjunct faculty participate in structured peer mentoring directed toward sharing instructional strategies and curriculum to improve and accelerate student learning, particularly for low-income students.

Example 2: Within each academic and career technical program, faculty work with student services staff and instructional support personnel to integrate support services with instruction.

Example 3: Across developmental education and academic and career technical programs, faculty work to identify learning competencies for incoming students and to teach those competencies in ways that accelerate student progress.

- **Technology capacity.** Faculty, staff, and administrators are trained and experienced in using technology to increase the effectiveness and efficiency of service and instructional delivery.

Completion by Design's technical assistance providers will work with colleges to strengthen their capacities as the colleges move forward in their redesign planning and implementation.



Example 1: Teams of faculty, staff, and administrators examine opportunities to redesign counseling, early alert systems, education planning, and other student support services, using interactive online capabilities to personalize services for students in cost-effective and educationally effective ways.

Example 2: Within instructional programs, teams of faculty, staff, and administrators develop course opportunities in large, entry-level courses that offer hybrid or blended learning formats that use online and face-to-face instruction.

State systems and other partnerships

All community colleges operate within and are influenced by larger systems, including state systems

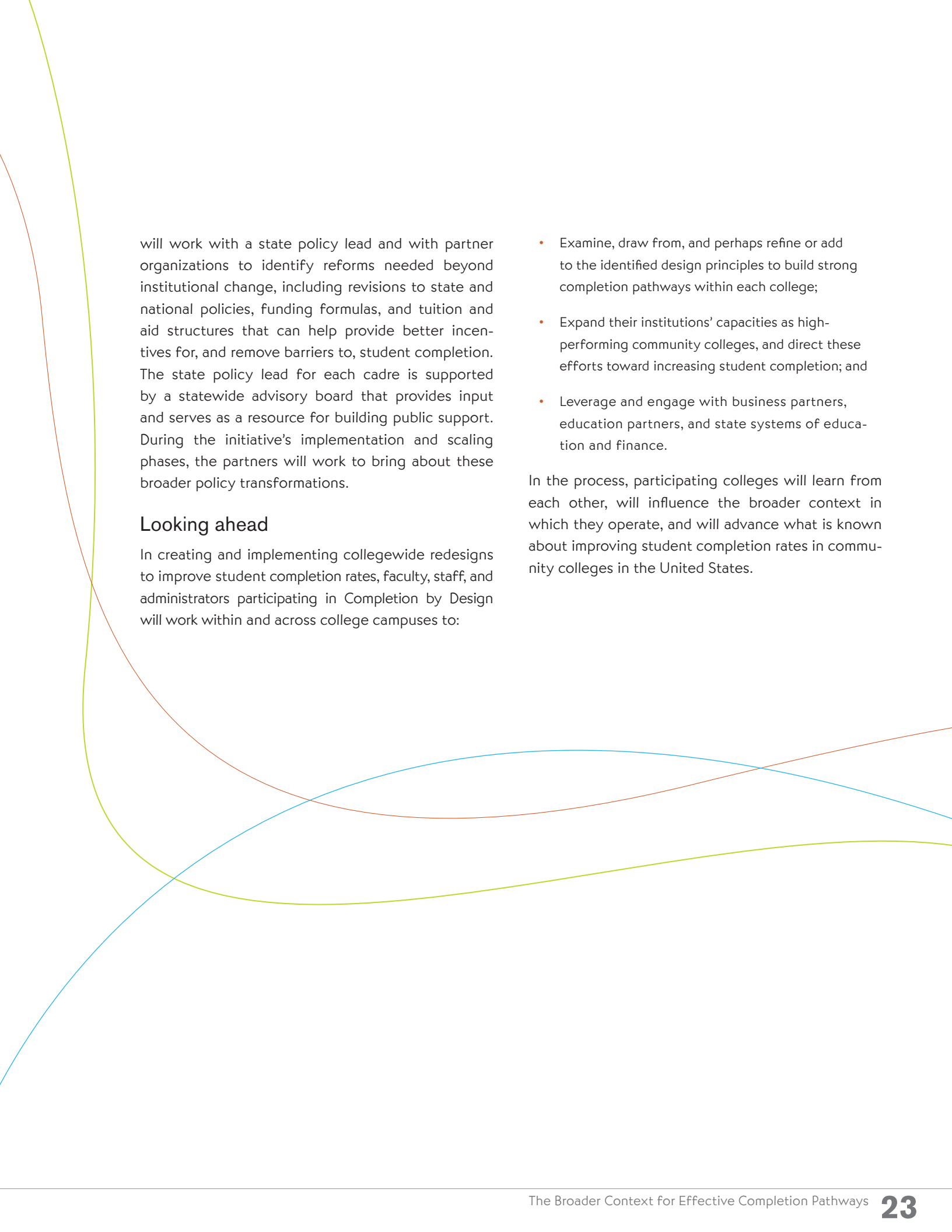
of education and finance, workforce partnerships, and education partnerships (for example, with K–12 schools and four-year institutions). High-performing colleges with strong completion pathways develop institutional policies and practices that leverage these systems and partnerships to maximize student completion and to spread effective redesigns across colleges. They also work with business, legislative, education, and other community partners to advocate for state and national policies that support and sustain college completion.

Completion by Design strengthens and supports these efforts, and seeks to build on parallel efforts by other organizations, community groups, and government agencies.³⁵ During the planning year, each cadre

CULTURE OF IMPROVEMENT: SELF-REFLECTIVE QUESTIONS

Engaging in adaptive change – continuous anticipatory thought and action across an organization to achieve a desired outcome or set of outcomes – requires the sharing of expertise, innovation, and learning among stakeholders. The following questions offer faculty, staff, and administrators a first step in exchanging information about their experiences in engaging in institutional redesign.

- How would we describe our campus culture in relation to reform?
- What programs or service areas have initiated successful reform efforts in the past? Who was involved?
- What were the metrics used to measure success? What has been the role of performance data in shaping reform efforts?
- How were the reforms initiated and later expanded? What was the role of communications, both internal and external, in those processes?
- What would be required to focus all existing relevant initiatives and projects on the completion agenda?
- What major challenges or barriers have been encountered in past reform efforts? How were those problems handled? With the benefit of hindsight, what would we have done differently? Are there some areas of agreement, across roles and functions, as to what could be done differently?
- Who have been the key change agents among faculty, staff, and administrators? How can these individuals or groups be included in and empowered through this initiative? How can people who have not been key change agents be included and empowered as well?
- What are the key takeaways from previous reform efforts that are relevant for our participation in Completion by Design?



will work with a state policy lead and with partner organizations to identify reforms needed beyond institutional change, including revisions to state and national policies, funding formulas, and tuition and aid structures that can help provide better incentives for, and remove barriers to, student completion. The state policy lead for each cadre is supported by a statewide advisory board that provides input and serves as a resource for building public support. During the initiative's implementation and scaling phases, the partners will work to bring about these broader policy transformations.

Looking ahead

In creating and implementing collegewide redesigns to improve student completion rates, faculty, staff, and administrators participating in Completion by Design will work within and across college campuses to:

- Examine, draw from, and perhaps refine or add to the identified design principles to build strong completion pathways within each college;
- Expand their institutions' capacities as high-performing community colleges, and direct these efforts toward increasing student completion; and
- Leverage and engage with business partners, education partners, and state systems of education and finance.

In the process, participating colleges will learn from each other, will influence the broader context in which they operate, and will advance what is known about improving student completion rates in community colleges in the United States.

CHAPTER 4

Getting Started: The Planning Year

The background is a solid orange color. There are several white, curved lines that sweep across the page from the bottom left towards the top right. A thick, dark red, wavy shape is positioned in the lower-left quadrant, partially overlapping the white lines.

During the planning year, each cadre, in consultation with members of the Completion by Design Assistance Team (CDAT), will define its overall approach to college redesign. Participation in the Pathways Analysis will assist with the development of these plans by pinpointing problems and successes related to student progression in participating colleges, and by focusing college efforts on accelerating the rate at which students enter and complete a program of study. It is expected that the plans will:

- Identify how the colleges within each cadre will engage in institutionwide redesign efforts in order to substantially increase completion rates for large numbers of students while holding down costs and maintaining access and quality; and
- Identify the colleges' approaches to meeting the initiative's intermediate objectives as described in chapter 1, namely, increasing and accelerating the rate at which students enter and complete college-level programs of study that result in credentials of value for ongoing education and for the market.

It is also expected that the cadres' plans, in addressing these goals and objectives, will draw from and, where appropriate, expand or refine the design principles for building strong completion pathways, as described in chapter 2; address the colleges' efforts to expand their capacities as high-performing institutions; and identify efforts to leverage partnerships with community and state leaders to improve state policy development, including specific steps to scale effective redesigns statewide. It is likely, however, that these expectations will be refined, based on feedback from the cadres and others, as the cadres work during the planning year.

The organizing structure

Completion by Design provides a structure for organizing this work while ensuring flexibility in how each college manages its role. Each campus is

required to identify a delegation of faculty, staff, and administrators serving the key functions related to student completion (see sidebar on page 26 for key roles and functions). This delegation will serve on the interdisciplinary cadre team throughout the initiative. However, each college or cadre will need to individually determine how to organize campus-level planning, reviews, and decision-making to accomplish its key objectives, whether by means of a presidential cabinet, leadership committee, steering committee, program review, or task force dedicated to specific functions.

As cadres organize for the planning year, important early steps are (1) to identify their needs for technical assistance and (2) to establish their initial areas of focus.

I. Identifying needs for technical assistance.

Throughout the initiative, it is crucial that colleges develop active and ongoing means to identify their needs for outside expertise and to communicate these needs to CDAT (see appendix C for a description of CDAT). Several types of technical assistance, including peer-to-peer assistance, will be available. In identifying assistance needs, faculty, staff, and administrators might ask themselves the following questions:

- 1. What processes will our college establish to assess its needs for technical assistance during this initiative? How often will needs assessments be completed? How will we prioritize the findings? How will we inform CDAT of the results?**
- 2. What are our plans to access and use available CDAT resources and expertise? Should we require programs or departments to use technical assistance expertise?**
- 3. How will we communicate the availability of — and the need to use — technical assistance across departments and functions at our campus, as well as across campuses?**

4. What kinds of technical assistance or tools do we need in order to:

- Plan first steps or next steps?
- Make midcourse corrections?
- Communicate more effectively across departments or across campuses?
- Provide training to key faculty, staff, or administrators?
- Bring reforms to scale without raising costs?
- Develop and use technological innovations?

- Engage faculty, staff, or administrators in data use or continuous improvement efforts?
- Transform our college culture to make student completion a priority?

5. Have we already assessed, or are we planning to assess, student experiences to better understand how students experience our programs of study and our services? Do we know how a range of students — particularly low-income and nontraditional students — experience our key programs and services?

ORGANIZING FOR THE PLANNING YEAR: KEY ROLES AND FUNCTIONS

Managing Partner: *The entity responsible for convening the participating campuses within a state for planning, implementation, collective learning, and securing relationships with other partners.* The managing partner is the operational lead and is responsible for submitting the implementation plan at the end of the planning year.

Cadre: *The participating team of community colleges or campuses within a state.* The cadre is the planning and implementation team for Completion by Design. It is led by the managing partner and is convened as an interdisciplinary team consisting of the members of each campus delegation. Each cadre will be convened by the managing partner at least three times during the planning year.

Campus Delegation: *An interdisciplinary team of faculty, staff, and administrators at each participating college or campus.* The delegation includes representatives of each of the key functions at the campus, and its members participate in all cadre decision-making. During the planning year, each delegation is responsible for leading campus efforts to support and inform planning across the cadre, including data analysis.

Policy Lead: *A state agency or organization designated by each managing partner to participate in all aspects of planning and implementation.* During the planning year, the policy lead assists the managing partner in convening a statewide advisory board and in identifying opportunities for supportive state policy development.

Advisory Board: *A statewide board (new or existing) of public, private, and civic institutions, to assist cadres in creating the conditions to improve completion rates.*

Senior Partner: *A full-time staff position designated by each cadre's managing partner to support the cadre, particularly in providing momentum for change within and across campuses.* For most cadres, the senior partner is the point person for presidents and chancellors and works closely with the project director. In Texas, the Project Director is the point person for presidents and chancellors, and the Senior Partner reports to the Project Director.

Project Director: *A staff position designated by each cadre's managing partner to support the cadre, particularly in facilitating planning, coordination, and communication within and across campuses.* The project director is the point person for faculty, staff, and administrators, and works closely with the senior partner.

2. Establishing initial areas of focus.

A Pathways Analysis is a crucial part of the planning process, helping colleges to look across the full continuum of students' college progression, from first contact and connection to completion, to consider where redesign efforts are most needed. The following questions might be useful in the planning process:

1. **What are the major academic and career technical programs and support services that our college provides to large numbers of students at each stage of student experience? Are these the programs and services our college plans to focus on for the initiative? Are there other programs our college plans to develop?**
2. **How do we inform students, at each stage of student experience, about the academic and career technical programs and support services available to them? How do students describe these programs and services? Are program and service options understood coherently and clearly by our students?**
3. **Are our programs and services integrated and aligned based on students' needs, or are they organized and delivered based on institutional functions?**
4. **Which programs or services are in greatest need of redesign or realignment, based on the Pathways Analysis and our assessments of students' experiences and needs?**
5. **Which program or service redesigns have the greatest potential for increasing certificate and degree completion for the largest numbers of students? Which ones are most likely to be successful?**
6. **How can CDAT assist us in framing or answering these kinds of questions?**

In spring 2012, each cadre's plan will be reviewed by the Bill & Melinda Gates Foundation and CDAT core staff, to determine funding for the cadre's subsequent implementation and scaling efforts. The plans will also serve to capture the current best thinking on how to launch large-scale efforts to improve completion rates at community colleges. The initiative's evaluation partner, MDRC, will conduct formative evaluation work over the course of the initiative to help the cadres refine their work. Those changes will be documented to inform the field.

Conclusion



In many ways, community colleges herald our future as a nation. They have organized themselves and worked for decades, against many obstacles, to make good on national promises of opportunity and advancement for all. They are well placed to deliver on these promises, for they serve large numbers of low-income and nontraditional college students, and they provide large numbers of older adults with opportunities for retraining and job development.

At a time when community colleges are experiencing budget restrictions and outright cuts, they also face

the demands of high enrollment, and they increasingly serve a larger proportion of underprepared students who require additional supports if they are to succeed. Community college completion rates have been stagnant or falling for years; as the nation needs substantially larger numbers of well-educated adults, young people need at least a basic postsecondary credential to find well-paying jobs and fulfilling careers. Completion by Design seeks to provide community colleges with the structure, assistance, and tools to improve completion rates for large numbers of students and to shorten the time in which they successfully complete their community college education.

Appendices

The image features a dark grey background with several overlapping, curved bands of color. A prominent teal band curves from the left side towards the center. A large, thick brown band curves from the bottom left towards the right. An olive green band curves from the top right towards the center. These bands overlap, creating a sense of depth and movement. Additionally, there are several thin, white, curved lines that sweep across the composition, adding to the abstract and dynamic feel of the design.

Appendix A: Draft Glossary

Proposed Terms and Definitions

Completion by Design brings together stakeholders with different backgrounds, fields of expertise, and language unique to each field. This glossary was prepared by the Bill & Melinda Gates Foundation to foster clearer communication around key terms. The following glossary is a draft of terms critical to the many partners and stakeholders involved in Completion by Design. This draft provides proposed definitions for 13 key terms. Other terms will be added as the initiative evolves.

Completion: Earning a market-valued or academically credible postsecondary credential, which includes (1) occupational certification; (2) a state-board-recognized certificate; (3) a two-year associate of science degree (A.S.) or associate of arts degree (A.A.); or (4) transfer, with a credential, to a bachelor's-degree-granting institution.

Completion Pathways: The integrated set of policies, practices, and processes at a college, and often across colleges, that is intentionally designed to maximize student completion across the loss-momentum framework.

Culture of Evidence: The use of qualitative and quantitative data and proven methods and/or ideas to inform analysis, strategy, decision-making, and resource allocation.

Design Principles: Core elements or strategies that prior research and ongoing learning suggest should be incorporated in redesign efforts intended to increase completion.

High-Performing College Capacity: The institutional capacities and and/or or competencies essential to designing and maintaining completion pathways.

Implementation Plan: A cadre-level document, completed at the end of the planning year, that articulates how institutions will implement completion pathways.

Loss-Momentum Framework: The guiding framework for Completion by Design colleges, which comprises four moments that capture the student experience, from a student's initial point of contact with an institution through degree attainment. The four moments are: (1) connection, (2) entry, (3) progress, and (4) completion.

Pathways Analysis: A tool that uses college data to pinpoint the dynamics of student loss and momentum from connection through completion.

Productivity: Increasing student completion for the same cost or a lower cost without compromising quality or access.

Scalability/Scaling: The degree to which a redesigned pathway is adopted in a different and/or significantly larger context while delivering improvements in completion similar to those at colleges already implementing it.

State System Capacity: The structures and incentives at the state level that encourage colleges to develop, implement, and sustain a redesigned pathway.

System Redesign: An adaptive change, based on evidence and analysis, that purposefully aligns policies and practices across all four moments of completion pathways.

Theory of Change for Completion by Design: A set of assumptions about how change can be triggered and/or produced to improve completion at community colleges, through system redesign. Typically, a theory of change defines the problem to be solved, the targets for change, the strategic levers required to solve the problem, and the expected results.

Appendix B: The Cadres

The Cadres and Their Community College Participants

The state cadres of participating community colleges were selected based on their leadership and experience in working to increase completion rates, as well as other factors. Among the cadres, Miami Dade

College is the only single district, but it represents the most participating campuses and large numbers of students. The North Carolina cadre includes small, medium, and large colleges in key areas of the state. The cadre in Ohio is building on the work of several colleges that participated in Achieving the Dream. The Texas cadre is focusing on high-need and high-growth colleges from across Texas.

Completion by Design Colleges and Campuses

State	Managing Partner	Cadre Colleges or Campuses	Student Enrollment*
Florida	Miami Dade College	<ul style="list-style-type: none"> - Hialeah Campus - Homestead Campus - InterAmerican Campus - Kendall Campus - Medical Center Campus - North Campus - Wolfson Campus 	67,000
North Carolina	Guilford Technical Community College	<ul style="list-style-type: none"> - Central Piedmont Community College - Davidson County Community College - Guilford Technical Community College - Martin Community College - Wake Technical Community College 	53,000
Ohio	Sinclair Community College	<ul style="list-style-type: none"> - Lorain County Community College - Sinclair Community College's Dayton and Courseview Campuses - Stark State College 	47,000
Texas	Lone Star College System	<ul style="list-style-type: none"> - Alamo Colleges - Dallas County Community College District - El Paso Community College - Lone Star College System - South Texas College 	236,000

*Fall 2009 head-count enrollment.

Appendix C: Initiative Supports

Completion by Design is directed by the Bill & Melinda Gates Foundation, with oversight on planning, implementation, and scaling from a national advisory committee of leaders in higher education (see sidebar). In addition, technical assistance for the initiative is provided by the Completion by Design Assistance Team (CDAT), which was developed to ensure that participating community colleges have the information and support they need to achieve their goals for student completion. CDAT includes core leadership and a larger team of national assistance providers.

Completion by Design Assistance Team (CDAT)

The CDAT core, led by Nan Poppe and Leslie Haynes, provides direct technical assistance to colleges and coordinates the technical assistance provided by the larger CDAT. This core group is also responsible for keeping cadres and their colleges informed about the initiative.

The broader CDAT also includes national assistance partners that have been selected for their expertise regarding strategies to improve student completion rates. CDAT as a whole is responsible for helping develop strong communications among community colleges, funders, technical assistance providers, and other leaders in the field. CDAT will work with practitioners, researchers, and others to develop frameworks and tools to help colleges create strong completion

COMPLETION BY DESIGN NATIONAL ADVISORY COMMITTEE

Steve Mittelstet, Chair
President Emeritus, Richland College

Art Chickering
Special Assistant to the President, Goddard College

John Cleveland
Vice President and Co-Founder, Innovation Network for Communities

Gerardo E. de los Santos
President and CEO, League for Innovation in the Community College

Maria Hesse
Vice Provost for Transfer Partnerships, Arizona State University

Kay McClenney
Director, Community College Survey of Student Engagement // Adjunct Faculty Member, University of Texas at Austin

Christine McPhail
Former President, Cypress College // Founder, Community College Leadership Doctoral Program, Morgan State University

Terry O'Banion
President Emeritus, League for Innovation in the Community College // Senior Advisor, Higher Education Programs, Walden University

Juan Olivarez
President and CEO, Kalamazoo Community Foundation

Burt Peachy
President, Burt Peachy Consulting

Laura Rendón
Professor, University of Texas at San Antonio

Ruth Shaw
Chair of the Board of Trustees, University of North Carolina at Charlotte // Former President, Central Piedmont Community College

Vincent Tinto
Distinguished University Professor and Chair of the Higher Education Program, Syracuse University

William E. Trueheart
President and CEO, Achieving the Dream: Community Colleges Count

pathways, strengthen their attributes as high-performing colleges, and develop a more supportive state policy environment. The specific responsibilities of CDAT members are described below.

Planning Guide, Knowledge Center, and Support Materials

(National assistance partner: WestEd)

A team from WestEd is responsible for developing resources that help describe and frame the initiative for participating colleges. WestEd will also develop materials to assist the cadres in developing their implementation plans. Key features of the team’s work will be documenting student experiences in community colleges and making research accessible for the range of audiences in the initiative, including practitioners and policymakers. The WestEd team developed this document, its companion planning tool, and the web-based Knowledge Center, whose version 1.0

provides easy access to summaries of research-based findings organized by connection, entry, progress, and completion. Version 2.0 will include additional tools and interactive features, such as “binders” of related resources and a question-and-response space to provide colleges with quick answers to questions.

WestEd (<http://www.WestEd.org>) is a nonprofit research, development, and service agency that works with education and other communities to promote excellence, achieve quality, and improve learning.

Communications Strategies and Tools

(National assistance partner: Pyramid Communications)

Pyramid Communications is helping to develop communications strategies and tools for Completion by Design and is leading the development of the collaborative interactive strategy (<http://www.completionbydesign.org>) to support peer learning

BROWSE by phase ▼ by topic ▼ by binder ▼

knowledge center

The Completion by Design Knowledge Center is dedicated to assisting grantees as they undertake comprehensive, school-wide reform. This searchable database contains expert-identified and vetted research and planning documents to support grantees through the planning, decision making, and implementation stages.

browse resources

By a Model Pathway to Completion

Connection From interest to application	Entry From enrollment to completion of gatekeeper courses	Progress From entry to course of study to 75% of requirements completed	Completion From complete course of study to credential with labor market's value
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Based on the Loss/Momentum framework the Pathways to Completion phase represents a model college journey from preparation through completion. From students transitioning from high school to the adult learner re-entering the system, each student's journey is unique. No matter the path, their success depends on support and guidance throughout the college experience. We invite you to begin browsing at any point along this continuum.

The Knowledge Center is an online space where community colleges can find resources and build and share their own binders of tools, data, and information focused on completion.

and knowledge development across colleges and campuses.

Pyramid Communications (<http://www.pyramidcommunications.com>) is a full-service strategic communications and public affairs firm designed to create lasting, positive impacts in the communities in which it works.

Data Warehouse, Pathways Analysis, and Research on Community Colleges

(National assistance partners: Community College Research Center, JBL Associates, and the RP Group)

The Community College Research Center (CCRC) is teaming with JBL Associates and the RP Group to build the capacity of Completion by Design colleges to conduct analyses of student pathways, use the results to redesign policies and practices in ways that increase completion rates, and analyze the costs and efficiency and productivity effects of such redesigns. In collaboration with the participating colleges and other national assistance partners, the CCRC team will develop workshops, tools, and other resources for evidence-based continuous improvement in community colleges. Using student unit record data provided by participating colleges and states, CCRC will also conduct in-depth quantitative analyses to inform the efforts of the participating Completion by Design institutions and other community colleges to strengthen pathways to completion.

The mission of CCRC (<http://ccrc.tc.columbia.edu>) is to conduct research on the major issues affecting community colleges in the United States and to contribute to the development of practice and policy that expands access to higher education and promotes success for all students. CCRC's research is accessible to colleges through the Knowledge Center and informs this document.

JBL Associates (<http://jblassoc.com>) specializes in education research and policy analysis related to post-secondary education topics and issues.

Through professional development and research, the RP Group (<http://www.rpgroup.org>) strengthens the ability of California community colleges to undertake high-quality research, planning, and assessments that improve evidence-based decision-making, institutional effectiveness, and success for all students.

Productivity and Cost-Effectiveness

(National assistance partners: Community College Research Center, the Bridgespan Group, and Dr. Charles Hatcher)

Three national assistance partners — CCRC, the Bridgespan Group, and Dr. Charles Hatcher — will collaborate with one another and with Completion by Design colleges to conduct research and develop tools for use in measuring the costs and efficiency and productivity impacts of systemic institutional reforms, such as those that will be implemented by the colleges.

The Bridgespan Group (<http://www.bridgespan.org>) is a nonprofit advisor and resource for education and other mission-driven organizations and philanthropy.

Facilitation of Meetings of Interdisciplinary Teams

(National assistance partner: Public Agenda)

One pressing challenge for the cadres is management of interdisciplinary team meetings (within and across colleges) to ensure that the meetings are useful to the wide range of participating faculty, staff, and administrators. Public Agenda is providing training, support, and materials for facilitators of the cadres' and colleges' planning sessions for the initiative. Public Agenda is also creating a customized faculty engagement guide and webinar during the planning year, in order to expand and deepen faculty engagement in the initiative.

Public Agenda (<http://www.publicagenda.org>) is a public opinion research and public engagement organization.

State Policy Support

(National assistance partner: Jobs for the Future)

As state policy leads and cadres collaborate to develop policies that accelerate community college innovation and to identify state policies that act as barriers to improving completion rates, Jobs for the Future (JFF) will conduct completion-focused policy scans to provide background and context for the policy environment in each Completion by Design state. JFF will also assist cadre states to develop and implement a completion-focused policy agenda with clearly identified policy priorities and policy targets organized by a completion-focused policy framework. At JFF, Richard Kazis and Michael Collins are leading the state policy effort.

JFF (<http://www.jff.org>) seeks to create and expand education and economic opportunity through its leadership in workforce development and education reform. JFF develops, implements, and promotes new education and workforce strategies that help communities, states, and the nation compete in a global economy.

Evaluation

(National assistance partner: MDRC)

The Bill & Melinda Gates Foundation is contracting with MDRC, a nonprofit education and social policy research organization, to conduct an evaluation of Completion by Design. The first nine months of the contract will involve MDRC in providing formative feedback to the Foundation, the technical assistance providers, and the cadres on their emerging plans. MDRC will also prepare plans for an evaluation, starting in the 2012–13 academic year, to examine the implementation, effects, and costs of Completion by Design.

Created in 1974 by the Ford Foundation and a group of federal agencies, MDRC (<http://www.mdrc.org>) learns what works in social policy – and makes sure that the evidence produced informs the design and implementation of policies and programs for low-income people. Its five main policy areas are: promoting family well-being and child development, improving public education, increasing access to and success in college, supporting low-wage workers and communities, and overcoming barriers to employment.

Additional Expertise

Based on the needs of colleges during the initiative, CDAT will connect the cadres with other national experts, to assist colleges in meeting their goals for completion.

Endnotes

¹ Brint, S., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America, 1900–1985*. New York: Oxford University Press. Brint and Karabel argue that a key part of the original rationale for creating junior colleges was to enable research universities to focus on higher-level studies.

² Most community colleges admit anyone aged 18 and over (in some states, a student must have a high school diploma or GED). However, admission to a college does not guarantee admission to all courses, and students typically need to take placement tests to determine whether they are eligible for college-level courses.

³ Phillippe, K., & Mullin, C. M. (2011). *Community college estimated growth: Fall 2010*. Washington, DC: American Association of Community Colleges.

⁴ The majority of Hispanic undergraduate students (52 percent) attend community colleges (American Association of Community Colleges. [2011]. *Fast facts*. Retrieved from <http://www.aacc.nche.edu/AboutCC/Pages/fastfacts.aspx>). Among low-income youth attending college, 58 percent start a two-year institution (Stephen Rose, "Baseline Information About Low-Income Young Adults," memo to the Bill & Melinda Gates Foundation, based on the National Longitudinal Survey of Youth, 1997 cohort).

⁵ U.S. Census Bureau. (2009). *Current population survey, annual social and economic supplement*. Washington, DC: Author.

⁶ National Center for Higher Education Management Systems (NCHEMS). (2011). *Difference in median earnings between a high school diploma and an associate's degree*. Retrieved from <http://www.higheredinfo.org/dbrowser/index.php?measure=82>. Data are from 2007.

⁷ NCHEMS. (2011). *Difference in median earnings between a high school diploma and a bachelor's degree*. Retrieved from <http://www.higheredinfo.org/dbrowser/index.php?measure=83>. Data are from 2007.

⁸ Carnevale, A., Smith, N., & Strohl, J. (2010). *Help wanted: Projections of jobs and education requirements through 2018*. Washington, DC: Georgetown University Center on Education and the Workforce.

⁹ While completion rates have declined during this period, the number of degrees conferred has increased, primarily due to increases in enrollments.

¹⁰ National Center for Education Statistics (NCES). (2010). *Digest of education statistics, 2010 tables and figures*. Washington, DC: U.S. Department of Education (table 341). These data include only first-time, full-time students, and they do not represent the many students who earn certificates and degrees after three years or after enrolling in a different college.

¹¹ Jenkins, D. (2011). *Get with the program: Accelerating community college students' entry into and completion of programs of study*. New York: Community College Research Center (p. 1).

¹² At the City University of New York (CUNY), estimates suggest that an average of 75 percent of freshmen needed at least one developmental education course (Foderaro, L. [2011, March 3]. CUNY adjusts amid tide of remedial students. *New York Times*. Retrieved from <http://www.nytimes.com>). The Southern Regional Education Board (SREB) and the National Center for Public Policy and Higher Education estimate that 75 percent of community college students nationally need at least one developmental education course. [2010]. *Beyond the rhetoric: Improving college readiness through coherent state policy*. Atlanta: SREB).

¹³ Venezia, A., Kirst, M., & Antonio, A. (2003). *Betraying the college dream*. Stanford, CA: Stanford

Institute for Higher Education Research; Venezia, A., Bracco, K. R., & Nodine, T. (2010). *One-shot deal? Students' perceptions of assessment and course placement in California's community colleges*. San Francisco: WestEd; Llosa, L., & Bunch, G. C. (2011). *What's in a test? ESL and English placement tests in California's community colleges and implications for U.S.-educated language minority students*. Santa Cruz, CA: UC Santa Cruz. Retrieved from <http://escholarship.org>; Bunch, G. C., et al. (2011). *Mapping the terrain: Language testing and placement for U.S.-educated language minority students in California's community colleges*. Santa Cruz, CA: UC Santa Cruz; Bailey, T. (2008). Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges*, 145, 11–30; Attewell, P., et al. (2006, Sept.–Oct.). New evidence on college remediation. *Journal on College Remediation*, 77(5), 886–924; Bailey, T. R., Jeong, D. W., & Cho, S. W. (2009). Referral, enrollment, and completion in developmental education sequences in community colleges. *Economics of Education Review*, 29, 255–270.

¹⁴ Gardenhire-Crooks, A., Collado, H., & Ray, B. (2006). *A whole 'nother world: Students navigating community college*. Oakland, CA: MDRC (p. 16).

¹⁵ See, for example, Conley, D. (2010). *College and career ready: Helping all students succeed beyond high school*. San Francisco: Jossey-Bass (chapter 1); Scott-Clayton, J. (2011). *The shapeless river: Does a lack of structure inhibit students' progression at community colleges?* (CCRC Working Paper No. 25, Assessment of Evidence Series). New York: Teacher's College, Columbia University.

¹⁶ Jenkins, D., op. cit.; J. Scott-Clayton, J., op. cit.

¹⁷ Rosenbaum, J. E., Deil-Amen, R., & Person, A. E. (2006). *After admission: From college access to college success*. New York: Russell Sage Foundation.

¹⁸ Grubb, W. N. (2006). Like, what do I do now? The dilemmas of guidance counseling. In T. Bailey & V. Morest (Eds.), *Defending the community college equity agenda*. Baltimore, MD: Johns Hopkins University Press.

¹⁹ Gardenhire-Crooks, A., Collado, H., & Ray, B. op. cit. (2006). *A whole 'nother world: Students navigating community college*. Oakland, CA: MDRC.

²⁰ Baker, E. D. (2011, February). *The challenge of scaling successful innovations: A case study of three Colorado community college system grants*. Presentation at the American Enterprise Institute's "Degrees of Difficulty: Can American Higher Education Regain Its Edge?" conference, Washington, DC.

²¹ These objectives are drawn from Jenkins, D., op. cit.

²² The initiative defines fields and programs based on a postsecondary taxonomy from NCES (made available in 2009 but unpublished) that will be made available through the initiative's Pathways Analysis. In tracking student progress, colleges should use a taxonomy adapted to their own particular offerings.

²³ Also see the Knowledge Center associated with this initiative, which includes links and summaries of related research, including Bailey, T., Smith Jaggars, S., & Jenkins, D. (2011). *Introduction to the CCRC Assessment of Evidence Series*. New York: CCRC. Retrieved from <http://ccrc.tc.columbia.edu/Publication.asp?uid=845>.

²⁴ Handel, S. J., & Herrera, A. (2006, June). *Pursuing higher education access and achievement: Case studies in the development of "transfer-going" cultures*. Presentation at the Jack Kent Cooke Foundation National Forum, Washington, DC.

²⁵ Jenkins, D., op. cit.

²⁶ Venezia, A., Bracco, K., & Nodine, T., op. cit.

²⁷ Boylan, H. (2002). *What works: Research-based best practices in developmental education*. Boone, NC: Continuous Quality Improvement Network, Appalachian State University.

²⁸ For an overview of the research in this area, see Jenkins, D. (2011). *Redesigning community college for completion: Lessons from research on high-performance organizations*. New York: CCRC.

²⁹ For example, see the discussion of adaptive change in Heifetz, R. A., Kania, J. V., & Kramer, M. R. (2004, Winter). Leading boldly. *Stanford Social Innovation Review*; and the discussion of collective impact in Kania, J. V., & Kramer, M. R. (2011, Winter). Collective impact. *Stanford Social Innovation Review*.

³⁰ O'Banion, T. (2010). Focus on learning: The core mission of higher education. In T. O'Banion and C. Wilson (Eds). *Focus on learning: A learning college reader*. Phoenix, AZ: League for Innovation in the Community Colleges. O'Banion articulates the six key principles of a learning college as follows: creates substantive change in individual learners; engages learners as full partners in the learning process, with learners assuming primary responsibility for their own choices; creates and offers as many options for learning as possible; assists learners to form and participate in collaborative learning activities; defines the roles of learning facilitators by the needs of the learners; and succeeds only when improved and expanded learning can be documented for learners.

³¹ The Center for Community College Student Engagement (CCCSE) conducts surveys on student experiences in community colleges, including the Community College Survey of Student Engagement (CCSSE) and the Survey of Entering Student Engagement (SENSE).

³² Chickering, A., & Gamson, Z. (1987, March). Seven Principles for Good Practice in Undergraduate Education. *The American Association for Higher Education Bulletin*.

³³ The quality of instruction is one of the most important factors – if not the most important factor – influencing student success. (See Boylan, H., op. cit.). Community colleges have worked on staff development for decades, but few have created models of systemic staff development that make a documented difference.

³⁴ O'Banion, T. (forthcoming). Guidelines for pathways to completion. *Community College Journal*.

³⁵ For example, a new National Coalition for College Completion has announced a nationwide mobilization of business and community partners (<http://finishhighered.org/>), and a recent report by the U.S. Department of Education highlights several state policy changes to advance college completion (U.S. Department of Education. [2011]. *College completion toolkit*. Washington, DC: Author. Retrieved from <http://www.ed.gov/sites/default/files/cc-toolkit.pdf>).

