



POLICY MEETS PATHWAYS

A STATE POLICY AGENDA FOR TRANSFORMATIONAL CHANGE

By Lara K. Couturier | DECEMBER 2014

The DesignForScale Series encourages a more strategic and comprehensive approach to scaling student success reforms at and among community colleges. The series affirms that it is time to be more systematic, serious, and organized about designing visionary, integrated reforms to be implemented at scale, while maintaining appreciation for questions, new evidence, and college context.



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Completion By Design is a five-year community college redesign effort focused on raising community college completion rates for large numbers of low-income students under 26 while containing costs, maintaining open access, and ensuring the quality of community college programs and credentials. Completion by Design is an initiative of the Bill & Melinda Gates Foundation's Postsecondary Success Strategy.

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INTRODUCTION: CLOSING THE IMPLEMENTATION GAP TO STRENGTHEN TRANSFORMATIONAL PATHWAYS

For the past decade, state policymakers and community college leaders have taken action to ensure that larger numbers of low-income, underserved students complete postsecondary education.

Community colleges—which educate about half of all undergraduates and 44 percent of low-income students who enter postsecondary education—have introduced myriad interventions and student support reforms since the beginning of Achieving the Dream in 2004, from launching new learning communities and academic advising for first-generation students to linking students and programs more closely to the labor market. They have been testing ideas and tracking results.

The experiments and research have made clear that there is no silver bullet. Dramatic improvements in student success will require states and colleges to build visionary designs with multiple, integrated student interventions, focused on what research says matters most in improving completion: accelerating developmental education; connecting students with a program of study early in their academic careers; providing a far more structured educational experience; and introducing a broad range of student services and

supports. The insights generated over the past decade have led the field to an evidence-based approach commonly referred to as “structured” or “guided” pathways, leading campuses to redesign how they interact with students from the point of interest through completion.¹

Campuses and state systems introducing these pathways gear all they do to the end goal of high-quality certificates, degrees, and good jobs. Orientation to college includes an assessment of a student’s career interests and academic and non-cognitive needs. Students choose and enter streamlined, coherent academic programs organized around specific program pathways—a set of courses that meet academic requirements across a broad discipline grouping such as health sciences, business, or education—with clear learning goals aligned with further education and/or a career. Students’ routes through college are mapped out, with course requirements made clear and visible. Pathways efforts also provide intensive student supports, such as academic advising and career counseling, and monitor student progress, providing frequent and customized feedback to learners.

Meanwhile, states and state postsecondary education systems have used the policy levers at their disposal to encourage changes in community colleges and state community and technical college systems. They have leveraged their convening powers, managed resource allocation and innovation funding, assisted with dissemination of research and evidence, and enacted policy or statutes when appropriate. In particular, state policymakers and system heads have established goals and metrics for success, changed transfer policies, created financial-aid and funding incentives, and established efforts to better align curriculum and requirements across postsecondary sectors.

State and campus efforts, however, have largely not been robust enough to yield desired outcomes to transform the lives of millions of students who enroll in college. A recent study by the National Student Clearinghouse Research Center reported that while more first-time students entered college in 2008, the percentage that completed a degree or certificate by fall 2014 was 55 percent, down from 56.1 percent for students who entered college in 2007.²

The proportion of students completing community college or achieving credentials has not budged, reflecting the many administrative, cultural, policy, and implementation challenges community colleges face in advancing the college completion agenda. Roadblocks have included:

- > **Demographic and economic challenges.** Growth in the numbers of students who are disadvantaged and underprepared for postsecondary education coupled with the downturn in the economy and declining state appropriations to community colleges have stretched the capacity of institutions to the limits.
- > **Problems of scale.** Research indicates that design of strategies for improving outcomes must be comprehensive and visionary, integrate programs across the campus, and be implemented on a significant scale to be effective. But too many state and campus initiatives are simply “pilot” projects. Relatively few states or colleges have implemented broad-scale efforts to introduce the transformational change embodied in structured pathways initiatives in a way that is systematic and rigorous.³ As a result, pockets of evidence-based innovations are everywhere, but fully scaled redesigns are few and far between. Significant, measurable improvements in student success have not materialized.

- > **Challenges in delivery.** While campuses have identified “best bets” of strategies to improve student success based on research, improvements have required significant investments of time and resources, have put more burden on already overstretched faculty (the vast majority of whom are adjunct professors) and counselors, and require a complete transformation of campus operations and culture. Only a few years ago, two-year institutions were deemed successful just by getting students in the door. Now every part of the campus—including leadership, admissions, financial aid, registration, full- and part-time faculty, student support, and even communications—must work across boundaries and with all student cohorts to ensure that every student benefits from coherent and integrated approaches to boost equity and student success. This can be a heavy lift for all but the most well-financed and sophisticated institutions.
- > **State policy undermines quality implementation.** Campus efforts are embedded in state policy environments that are often outdated, driven by the wrong incentives, or incompatible with colleges’ efforts. Too often, policymakers have sought quick fixes, enacting big legislation without fully evaluating what needs to happen to create success, or without providing adequate resources, building needed buy-in from key stakeholders, or acknowledging the progress already being made on the ground. In some states, such as Florida and Connecticut, legislation has left unaddressed the needs of community colleges’ least prepared students. Legislation in those states required changes that research has proven effective for students who are near college-ready, but did not specify options for those with severe academic needs. In every other state that has introduced important changes (such as Colorado, Kentucky, Ohio, and Tennessee), innovative policy changes are regularly layered on top of legacy laws and regulations that inevitably cause confusion and chaos during implementation. Efforts like performance funding or improved transfer seem like no-brainers for policymakers seeking to improve outcomes but in some cases have encouraged campuses to help the students who are most likely to graduate and to shy away from those hardest to serve.

Taken together, these challenges have resulted in an implementation gap across the entire sector of the elements we need to have in place to help students complete college. While community colleges continue to gain the spotlight as the most economical and powerful engine to upgrade the skills of the workforce and help millions of people earn the postsecondary credentials to obtain good jobs that pay a living wage, we need to put efforts to bolster completion on a new trajectory.

Policymakers, campus officials, and other leaders of the college completion movement need to implement structured pathways initiatives on a much more ambitious scale. State and system-level policies, laws, administrative rules and regulations, waivers, and financial incentives can all contribute to scaling institutional principles, policies, and practices. But meeting the sector’s promise to secure the future of millions of low-income students, first-generation students, and students of color requires that the college completion movement bring college and state policy actors out of their respective silos. Many in the field agree with the quality of the design principles for structured pathways and the research behind them; quality of *implementation*, however, is equally important. A haphazard spread of even the best of ideas is unlikely to lead to sustainability, self-generation, and real attention to classroom issues. State officials,

system heads, and campus leaders must work more closely together to introduce more strategic, sustainable, scalable, cohesive, and evidence-based approaches to policy and programs—what we call DesignForScale.

EMERGING LESSONS FROM STATES AND COMMUNITY COLLEGES

Over the past three years, the Postsecondary State Policy team of the Boston-based nonprofit Jobs for the Future has been working with a network of nine community colleges in three states that are part of the Completion by Design initiative, and in partnership with the colleges' state lead organizations (Florida College System, North Carolina Community College System and Ohio Association of Community Colleges). The colleges have been implementing structured pathways to increase degree completion, and their state leads are identifying needed state policy changes to support their work, and designing vehicles for spreading lessons learned across the colleges in their states.

The initiative, funded by the Bill & Melinda Gates Foundation, reveals new lessons for campuses and policymakers about how policy conditions can serve as both a catalyst and foundation for widespread change.

THE COMPLETION BY DESIGN CADRES

Cadre Colleges	State Lead Organization
Miami Dade College (Managing Partner), and Hialeah Campus, Homestead Campus, InterAmerican Campus, Kendall Campus, Medical Center Campus, North Campus, MDC West, Wolfson Campus	Florida College System
Guilford Technical Community College (Managing Partner), and Central Piedmont Community College, Davidson County Community College, Martin Community College, Wake Technical Community College	North Carolina Community College System
Sinclair Community College (Managing Partner), and Lorain County Community College, Stark State College	Ohio Association of Community Colleges

This publication aims to inform state policymakers and community college system leaders about key lessons from research, and from Completion by Design and other important initiatives, including Achieving the Dream and Jobs for the Future's Student Success Center Network. It provides direction for state leaders seeking to support their community colleges in such an ambitious undertaking as structured pathways, urging them to commit to the same level of change to their policy frameworks by considering how state policies impact success at every step of the student experience, from student connection to entry, progress, and completion, and how they can build an infrastructure to support and sustain reforms. This level of commitment is necessary to achieve scaled, dramatic improvements in student success, particularly for those struggling to gain a foothold in today's economy.

Completion by Design Principles for Designing Pathways

“Completion by Design has identified a set of pathway design principles drawn from research, practice, and participating colleges’ experience during the [initiative’s] planning phase. . . . While there is no single model for a completion pathway—defined as an integrated set of institutional policies, practices, and programs intended to maximize students’ likelihood of completing a credential—these principles help inform the choices colleges make when designing their pathways. Creating systemic change requires attention to the eight principles listed [below], but colleges must strategically implement the principles based on their local context and students’ needs.”⁴

The Eight Design Principles

1. Accelerate Entry into Coherent Programs of Study
2. Minimize Time Required to Get College-Ready
3. Ensure Students Know Requirements to Succeed
4. Customize and Contextualize Instruction
5. Integrate Student Supports with Instruction
6. Continually Monitor Student Progress and Proactively Provide Feedback
7. Reward Behaviors that Contribute to Completion
8. Leverage Technology to Improve Learning and Program Delivery

The recommendations outlined in this report stem directly from JFF’s work at the intersections between the states and colleges in Completion by Design. “Working at the intersections” is a core tenet of JFF’s work. By working closely with the colleges, and knowing their progress and pain points, JFF seeks to collaborate with state partners on developing and implementing policies that support colleges’ transformation efforts, and are realistic and informed by the experiences of colleges in doing this work.

WHAT DOES IT MEAN TO BUILD A STRUCTURED PATHWAY?

At the beginning of the Completion by Design initiative, each college undertook a deep analysis of its own student outcomes data to identify when and why students were dropping out of college.⁵ From that analysis of student experiences, each cadre and college developed plans for moving forward.

While the colleges approached this work according to their local context and students’ needs, they arrived at core themes and approaches that are remarkably similar. Now, a coherent set of principles, common activities and practices exists among participants—an identifiable “ecology” of structured pathways. These go a long way toward defining what “building structured pathways” really means.

It is important to note that the Completion by Design colleges are still implementing structured pathways. Promising evidence is emerging, and expert recommendations are converging, but mature “proof points” do not yet exist. Still, structured pathways approaches are emerging at increasing numbers of states and colleges because of their evidence base and logic. Many community colleges and their state partners, after at least a decade of intensive, evidence-based reform work, are convinced that they can improve student outcomes through the design of pathways that provide more direction and structure, while integrating evidence-based educational practices inescapably into their experience. This paper—in response to strong demand from the field—seeks to add to the literature about how states can support their colleges as they tackle scaled, transformative changes such as structured pathways. It builds on several years of JFF’s work at the intersections of the states and colleges participating in Completion by Design.

To support the adoption of transformative changes, such as structured or guided pathways across colleges, states, and the nation—so that change is deeper, smarter, more sustainable, helps colleges reshape their cultures and the classroom, and helps community college students who are struggling to succeed in today’s economy—JFF has developed the following two core recommendations for state-level actors and policymakers that add up to our DesignForScale approach:

- **Recommendation 1:** Create state policy conditions that support colleges’ efforts to undertake comprehensive, integrated redesign. Recommendations for policymakers to analyze and redesign state policy conditions, so that policy encourages and supports colleges’ efforts to tackle transformative changes with integrated interventions, such as structured pathways.
- **Recommendation 2:** Build state structures to set the conditions for scaling up reform. Recommendations for how state policymakers and colleges can set the conditions and build the infrastructure necessary to bring reforms to scale.

These recommendations are elaborated in this document. First, though, we turn to a description of how the Completion by Design colleges are implementing structured pathways.

State Partners and the “Policy Environment”

The agenda set forth in this report calls for action by a range of partners at the state level who can leverage their convening authority, disseminate research and evidence, spread ideas through communications, direct funding of innovations and influence choices about resource allocation, and seek policies or statute changes when appropriate. Such actors include community college system and association officials, Student Success Centers, community college presidents, leaders of faculty teams and organizations, legislators and governors and their staffs.

The report generally does not identify which actors can take leadership for specific changes at the state level. Local governance and context dictate what various state officials and entities can do.

Jobs for the Future’s Postsecondary State Policy team works primarily with state-level intermediaries focused on improving community college student completion. These include state or district community college systems (e.g., the Virginia Community College System), Student Success Centers (e.g., the Arkansas Center for Student Success), community college associations (e.g., the Ohio Association of Community Colleges), governing boards (e.g., Oklahoma State Regents for Higher Education) and state departments of higher education (Massachusetts Department of Higher Education).

State policy, rules, regulations, legislative purviews and the powers that can be used by various actors, as a whole, are what is meant by the “policy context” or “policy environment” in this report, which influences what can happen at, and in support of, campuses and students. The recommendations in this publication are designed to encourage changes that state actors can translate into policy appropriate for their particular state environments.

ULTIMATELY, THE ACT OF BUILDING STRUCTURED PATHWAYS IS A TRANSFORMATION OF THE WHOLE COLLEGE. COLLEGES ARE NOT PILOTING SMALL INTERVENTIONS; THEY ARE, INSTEAD, TACKLING LARGE, INTERCONNECTED CHANGES THAT WILL AFFECT ALL OF THEIR STUDENTS.

Ultimately, the act of building structured pathways is a transformation of the whole college. Colleges are not piloting small interventions; they are, instead, tackling large, interconnected changes that will affect all of their students.

As colleges have gone through this process, Jobs for the Future has been at their side, working at the intersection of college and state activity to support and document progress. Jobs for the Future has reviewed the relevant literature, and added insights gained through our work with the Completion by Design college campuses as well as in numerous meetings and conversations with state partners supporting the colleges’ work. Jobs for the Future has identified the following set of “core elements” that define structured pathways at Completion by Design colleges. When states know the core elements of structured pathways, they can map policies, practices, and activities to support community college transformation.

THE CORE ELEMENTS OF A “GUIDED” OR “STRUCTURED” PATHWAY

Jobs for the Future identified the following elements through a comprehensive process beginning with a review of the relevant literature, consultation with colleges and state partners and analysis of approaches that work.⁶ No matter where students start at a Completion by Design college—directly from high school, or through the developmental education, adult basic education or English as a Second Language entry points—they will encounter certain elements designed to foster their success.

- > Students enter through structured and intentional “**on-ramps**” designed to **accelerate** their ability to choose, initiate and complete a program of study.
- > Students receive a set of **intake services** designed to orient them to the college, assess their career interests and academic and non-cognitive needs, place them in courses suited to their needs, and register them for courses that will count toward completion.
- > Students **plan** their educational pathway and monitor their own progress through systems designed to help them.
- > Students pursue academic **pathways** that colleges have analyzed and **redesigned** with the purpose of educational coherence, ensuring that program learning goals are clearly defined and aligned with the requirements for further education and/or a career; requirements have been streamlined to reduce redundancy

“IT’S THE TOTALITY OF ALL OF THE WORK THE COLLEGES ARE DOING THAT REALLY IS THE HALLMARK OF CBD . . . COLLECTIVELY THE WORK OF THESE COLLEGES IS ON THE PATH TO REAL TRANSFORMATION OF THE STUDENT EXPERIENCE.”⁷

—ROB JOHNSTONE, FOUNDER AND PRESIDENT, NATIONAL CENTER FOR INQUIRY AND IMPROVEMENT

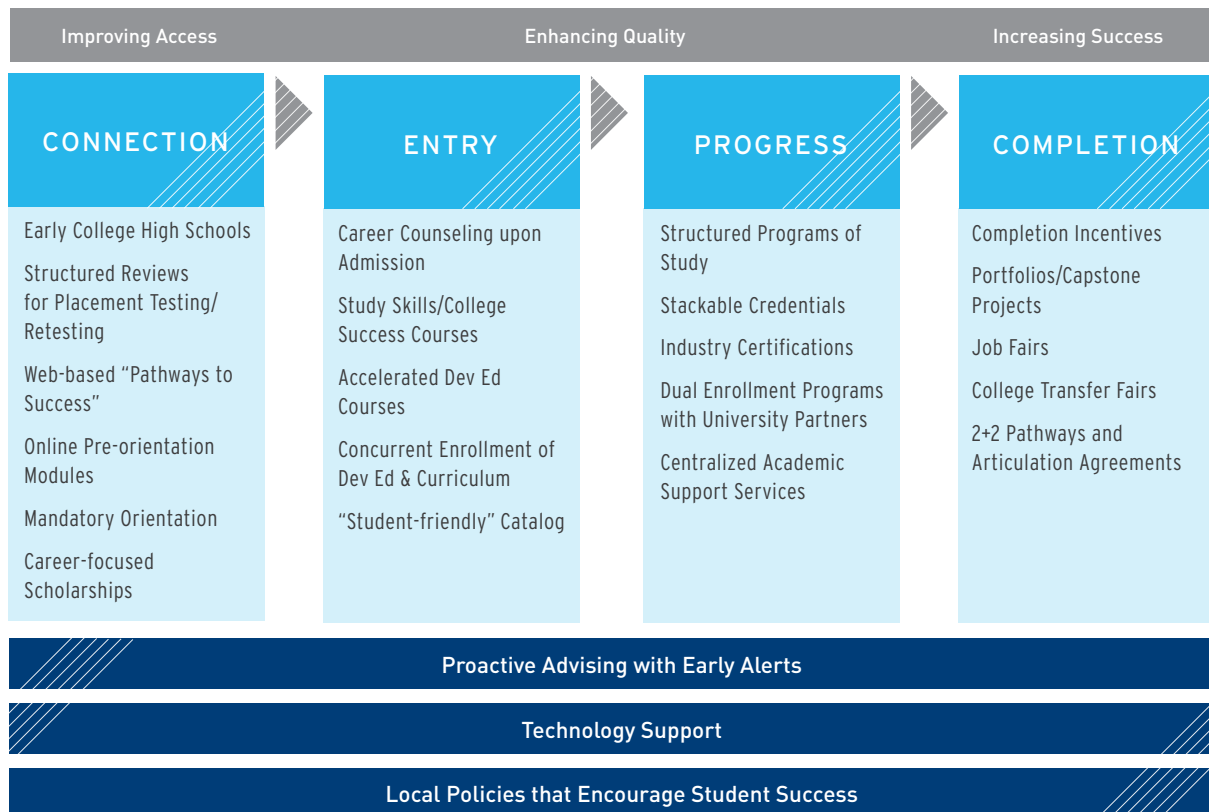
and excess credits; and pathways to completion have been mapped and are obvious to students.

> Students find intensive **supports** integrated into their educational experience, so that they receive frequent and high-quality advising, access to instructional and personal supports, and career counseling informed by real-time labor market information.

> Students find their progress monitored systematically by faculty and staff trained to offer frequent and customized **feedback**, and keep them on track to completion.

Building structured pathways is an intensive process. It requires attention to everything from institutional policies to program requirements, technology and state policy supports and barriers. This list of “core elements” is not exhaustive; every participating college is building structured pathways according to local needs. But this list serves as a framework for considering the types of reforms and principles that lead to a major culture change and a holistic “structured pathways” approach. As an example, Figure 1 demonstrates the scope of the changes underway at Guilford Technical Community College (GTCC) in North Carolina. GTCC is leaving almost no stone unturned, from tackling placement test review to providing completion incentives and proactive advising. The accompanying table provides a clear picture of the contrast between the status quo and the end goal of guided pathways.

Figure 1. Guilford Technical Community College Initiatives



Source: Ed Bowling, Managing Partner Director, Completion by Design-North Carolina

The Completion by Design colleges are making thoughtful choices about which elements of the pathways to implement and in what order and, as is natural in a transformative reform process, different colleges are making progress in different areas. From the beginning, the colleges' reform designs have been intentionally comprehensive and institution-wide. Actual implementation is by necessity more incremental than their designs. By example, Guilford Technical Community College has not yet made equal progress on every initiative listed in Figure 1, but they certainly intend to, and when they are done, the whole will be greater than the sum of its parts.

START WITH THE END IN MIND

Status Quo	Guided Pathways
Little upfront career and college planning	Default program maps
Requirements confusing; too many choices	"Exploratory" majors for undecided
Paths unclear, poorly aligned with end goals	Required plans tied to predictable schedules
Developmental diversion	Integrated academic support for program gatekeeper courses
Students' progress not monitored	Progress tracking, feedback and support
Limited ongoing feedback and support	Progress tracking, feedback and support
Poor alignment with high school	Bridges to college <i>programs</i> from high school, ABE and other feeders

Source: Jenkins, Davis and Rob Johnstone. "Start with the End in Mind: Building Guided Pathways to Student Success." Washington, DC: Presentation at Jobs for the Future's Student Success Summit, September 2014.

CHARTING PROGRESS AND CHALLENGES

A few times per year, members of the organizations that support Completion by Design with technical assistance—also known as the National Assistance Team (see box, *Completion by Design National Assistance Team (NAT) on page 54*)—conduct "reflection meetings" with each college to help them consider progress and challenges and map out their future priorities. A report from early 2014 on those meetings described recent progress on each of the nine colleges' implementation of structured pathways. That progress is briefly summarized here to illustrate their efforts to build structured pathways and to show opportunities for states to shape policies that support transformation.⁸ The examples that follow are representative of recent progress; they are meant to demonstrate the flavor of the reforms but they are not exhaustive—the colleges have done, and will continue to do, far more than can be captured here.

"The North Carolina cadre is redesigning the areas of developmental education, programs of study, intensive advising, and student management technology."⁹

- > **Central Piedmont Community College**, through efforts to restructure their programs, eliminated 220 courses from their AA/AS degrees.
- > **Davidson County Community College** implemented both mandatory advising and mandatory orientation.

- > **Guilford Technical Community College** provided faculty professional development about advising and is preparing to implement software (My Academic Plan/Student Success Plan) that will help them to map out students' educational pathways and monitor student progress.
- > **Martin Community College** redesigned and restructured nine academic programs, ranging from medical office administration to early childhood education.
- > **Wake Technical Community College** developed a beginning algebra MOOC to help students prepare for developmental education placement tests.

"The [Ohio cadre] colleges plan to redesign each institution through four overarching strategies: redesigning academic programs of study, accelerating students through the pathway, integrating student services throughout the pathway, and implementing policies to increase persistence and completion."¹⁰

- > **Sinclair Community College** redesigned 120 academic pathways, mapping out electives and recommended schedules for full- and part-time students.
- > **Stark State College** focused on redesigning developmental education, including contextualizing math and evaluating high school GPA when making placement decisions for developmental English.
- > **Lorain County Community College** implemented a data dashboard accessible to many stakeholders that provides data on critical measures of student progress and completion, and redesigned their student intake processes.

Miami Dade College and its seven campuses, which comprise the Florida cadre, have undertaken a comprehensive suite of reforms across all of the campuses. This has included "an enhanced intake process; curricular changes in developmental education and English language learning; structured course options; a new coaching and mentoring structure; and broad communities of interest to increase engagement opportunities and career counseling opportunities for students."¹¹

- > **Miami Dade College** has designed, across all of its campuses, a comprehensive intake process for entering students, which includes mandatory face-to-face orientation, advising built into orientation, non-cognitive assessments, and placement test boot camps.¹²

COMPELLING LESSONS: HOW THREE STATES REDESIGNED THEIR POLICY ENVIRONMENTS

State policy can create the conditions and incentives for colleges to take on the type of transformational change—such as structured pathways—necessary to dramatically improve student outcomes. Indeed, when leveraged well, state policy can be a tool for setting high expectations across the state for improving students' lives.

At the moment, however, most state policy environments do not support major reforms. Many need a holistic redesign themselves. They could start by looking at the models developing in the three Completion by Design states—Florida, North Carolina and Ohio. They have been working on this effort for several years and have made good progress.

As these states' efforts demonstrate, they are not looking for a silver bullet. Instead they are designing big, with a series of integrated interventions.

NORTH CAROLINA: DESIGNING POLICY CONDITIONS THAT SUPPORT STRUCTURED PATHWAYS

The North Carolina Community College System collaborated with its Completion by Design colleges to identify needed policy changes, and then skillfully designed a work plan to put structured pathways policies in place, with technical assistance from Jobs for the Future.

For example, North Carolina's Completion by Design colleges are accelerating their students' progress through developmental education based on a statewide effort to redesign its delivery. In addition, the State Board of Community Colleges passed a new **placement and assessment policy** that allows colleges to place students into college-level courses based on their performance in high school. This was a policy change a group of community colleges in the state requested to help minimize placement errors created by an overreliance on assessments. It also allows the colleges more latitude to experiment with accelerating students' progress.

In February 2014, the State Board of Community Colleges and the University of North Carolina Board of Governors signed a revised Comprehensive Articulation Agreement that embraces many of the principles of Completion by Design. It seeks to provide community college students with **transfer pathways** with clearly defined goals, courses that are guaranteed to transfer, a better understanding of university requirements, and guidance on mapping academic pathways.

The college transfer pathway of the state's dual enrollment program, called Career and College Promise, is now structured to include only those courses that are universally transferable to all University of North Carolina institutions as part of the Universal General Education Transfer Component. Ensuring that dual enrollment courses are transferable is a significant step toward engaging high school students in completion-focused pathways early, and reducing lost credits.

A state-supported **Curriculum Improvement Project** focused on Career and Technical Education encouraged the colleges to eliminate course redundancies and streamline program requirements, helping to simplify and clarify programs and pathways for students.

A Math Curriculum Improvement Project reduced the number of **gateway math** courses from 14 to five, helping to clarify expectations for students, simplify course choice, and improve credit transfer.

These are just a few examples of policies in North Carolina that are creating an environment that supports and encourages the community colleges to embrace the principles of Completion by Design.¹³

A college participant in North Carolina has described the changes to transfer, developmental education, and placement as a means of nudging all of the system's 58 colleges toward the Completion by Design principles. Indeed, the Completion by Design colleges have forwarded many state-level policy recommendations to the North

Carolina Community College System, such as a statewide policy on orientation.¹⁴ North Carolina college representatives have also noted that the changes made to identify a transfer core, via the Comprehensive Articulation Agreement, will help colleges across the state analyze and simplify their course selection process, a core tenet of Completion by Design. In hindsight, they wished that the statewide policy had been in place before Completion by Design, as it would have facilitated their work.

OHIO: MAKING THE MOST OF PERFORMANCE-BASED FUNDING

The Ohio Association of Community Colleges (OACC) is supporting its member colleges as they implement a wide range of reforms that span the student lifecycle, from entering pathways through to completion and transfer.

Serving as a foundation is the new outcomes-based funding system, which, as of fall 2014, awards 100 percent of state funding to community colleges based on performance, including student outcomes such as students earning their first 12, 24 or 36 credit hours, completing the associate degree, or transferring after completing at least 12 semester credit hours and enrolling for the first time at a four-year college or university in Ohio. In addition, each campus is accountable for a completion plan, submitted to the Board of Regents, detailing their strategies to encourage students to complete certificates and degrees. OACC has helped its colleges craft completion plans that will help them succeed under the new outcomes-based funding system. The combination of the funding system and the completion plans is a useful platform for encouraging the colleges to integrate many other initiatives in Ohio that could otherwise live on as discrete, disconnected efforts, effectively weaving all completion-focused reforms into a larger, visionary design.

For example, the OACC has been focused for several years on **improving developmental education**. The colleges are responding with significant changes in developmental education delivery, and developmental improvements are critical components of their completion plans and funding. The OACC's Student Success Center is supporting the colleges with significant **faculty professional development** for improving developmental teaching and learning.

The Ohio Math Initiative has also kicked off statewide. All of the state's colleges agreed that the existing **math pathways** were broken; inconsistent standards and varied curricula had, over time, led to poor outcomes and low credit transfer. Through work with the Dana Center at The University of Texas at Austin, all of the state's colleges have agreed to implement three differentiated math pathways that will transfer to the state's baccalaureate institutions.

To help more students make smart choices and get onto a pathway to completion, Ohio also has a new statewide initiative on **dual enrollment**, requiring every public high school to offer dual enrollment options for their students.

The state also boasts a number of initiatives designed to **serve adult students**, such as Military Credit, Prior Learning Assessment and One-Year Option, which allows graduates from Ohio's adult career centers who complete a 900-hour program of study and obtain an industry-recognized credential to transfer 30 college technical credit hours toward a

technical degree upon enrollment in an institution of higher education. Each initiative is coordinated through a statewide implementation process.¹⁵

FLORIDA: ALIGNING LEGISLATION WITH COMPLETION BY DESIGN

In Florida, a mix of new and existing policies, skillfully implemented by the Florida College System, is creating a powerful example of how state policy can set the conditions for spreading many of the principles of structured pathways.¹⁶ In particular, the Florida Legislature in 2013 passed Senate Bill 1720, which aligned with many of the Completion by Design principles. Legislation is not always the most effective means of encouraging colleges to change. Encouraging behavior via incentives, guidance or college-led initiatives can be equally if not more effective. Nonetheless, the Florida colleges must implement SB 1720 and so they are working hard to do so effectively.

SB 1720 supports many aspects of Completion by Design because it lays out policy that:

- Establishes **meta-majors**—a set of courses that meet academic requirements across a broad discipline grouping such as health sciences, business, or education—to guide students through their early academic requirements. All students who enroll in a Florida college must select a meta-major. This policy change, when fully implemented, will help to accelerate entry into programs of study for all students (supports CBD Design Principle 1).
- Requires the colleges to **accelerate developmental education**, advocating four accelerated models—co-requisite, compressed, modular, and contextualized—each of which aims to minimize the time to get college-ready (supports CBD Design Principles 2, 4 and 5).
- Requires each college to develop a **comprehensive advising** plan. Students testing below college level must be counseled on their developmental education options and the accelerated delivery models that will get them college-ready as quickly as possible. The new advising policy builds on the state's existing 30 credit hour advising policy, which requires that students seeking baccalaureate degrees in the Florida College System be advised on the prerequisites for their programs of interest by the time the students accumulate 30 college credits. Both the new and existing policies aid the colleges' efforts to ensure that students know the requirements to succeed (supports CBD Design Principles 3 and 5).
- Requires every college to develop a plan for how it will offer developmental education and how it will **track student outcomes** (supports CBD Design Principle 6).¹⁷

Miami Dade College notes that the Florida College System's "successful implementation of [HB 7135 and SB 1720] stands to appreciably accelerate the rate at which students in all of its colleges enter and succeed in programs of study. In response to this legislation, MDC enrolled over 4,100 students in its **redesigned developmental education** courses and implemented a pilot program for multiple measures placement with 400 students."¹⁸

JOBS FOR THE FUTURE'S DesignForScale APPROACH

College leaders embracing pathways reforms are signaling a willingness to commit to transformational change. They are honestly discussing the troubling aspects of their student progression and completion rates, examining every step of the student experience, and redesigning how they interact with students from the point of interest through to completion.

Colleges are undertaking these reforms embedded in state policy environments that are often outdated, driven by the wrong incentives, or incompatible with colleges' efforts. To support and sustain colleges that are improving student outcomes, state policymakers need to DesignForScale.

DesignForScale is Jobs for the Future's approach to helping state policymakers create a visionary policy environment: an environment that encourages and supports colleges to implement integrated, evidence-based student success reforms at scale. We call first for states to undertake a deep analysis of their existing policies, and then to prioritize the implementation of policies that support colleges building structured or guided pathways. We also outline a series of other structures states need to build, such as deep and engaging professional development for faculty and staff, creation of advisory boards that draw in key stakeholders, and support for colleges undertaking a deep and consequential analysis of their own institutional policies and practices. Altogether, DesignForScale will enhance the breadth and integration of structured pathways.

RECOMMENDATION 1

CREATE STATE POLICY CONDITIONS THAT SUPPORT COLLEGES' EFFORTS TO UNDERTAKE COMPREHENSIVE, INTEGRATED REDESIGN

STEP 1: CHARGE A TEAM WITH ANALYZING THE EXISTING POLICY ENVIRONMENT

To kick off the process leading to transformational change, we recommend states establish a team charged with analyzing the existing policy environment and developing a set of priorities. To facilitate this, we have developed the [DesignForScale: State Policy Self-Assessment Tool](#). The *Self-Assessment Tool* sets out a preferred policy framework and guides state teams through a process allowing them to:

1. Analyze their existing policy environment vis-à-vis a preferred policy set supportive of structured pathways redesigns.
2. Compare their existing policy environment to that of peer states.
3. Evaluate the extent to which their existing policy set and conditions are supportive of transformational change.
4. Help state teams to identify and prioritize needed policy changes.

The Right Tool at the Right Time

In 2010, R. Scott Ralls, president of the North Carolina Community College System, kicked off a listening tour of all 58 community colleges in the state. Drawing on the expertise of Jobs for the Future's policy analysts, state board members and system office staff created a plan to focus their visits with campus communities. The listening tour allowed them to discuss the colleges' efforts to improve student success, consider how to replicate best practices, and identify policy barriers and needed state-level changes to support their work.

Following the tour, the system documented more than 200 college-led innovations and 75 systemic barriers to student success. System-wide committees then created a process to follow up on what was learned, resulting in a set of 15 statewide strategies focused on improving student success. The System Office launched SuccessNC (<http://www.successnc.org>), providing an umbrella framework to organize the state's diverse student success efforts, target resources and maximize impact.

Jobs for the Future's *DesignForScale: State Policy Self-Assessment Tool* can help other states replicate North Carolina's experience. We recommend states begin by formulating a team charged with launching an effort to analyze the extent to which their state environment supports transformative change. That team can develop a process for how to analyze the state's policy set, which might include statewide meetings, campus site visits, a listening tour, and virtual convenings. The *Self-Assessment Tool* is designed to guide state team discussions, leading them through a process of analyzing the extent to which their state environment supports transformative change, and developing a set of policy change priorities.

To download the *Self-Assessment Tool*, please visit <http://www.jff.org/publications/designforscale-state-policy-self-assessment-tool>

The 2012 *Cornerstones of Completion* Report

In late 2012, Jobs for the Future published an initial policy framework outlining 10 high-leverage policies in support of the work then underway at the Completion by Design colleges. Called *Cornerstones of Completion*, the framework's recommendations were:¹⁹

1. Create structured transfer pathways by improving transfer and articulation policies.
2. Redesign CTE programs into more structured pathways with clear labor market value.
3. Support structured pathways with better use of labor market information and program-level data.
4. Build routes to college opportunities through strategies such as dual enrollment, early college, and contextualized basic skills instruction.
5. Improve assessment and placement policies, including consideration of multiple measures.
6. Reduce, accelerate, and contextualize developmental education.
7. Support strong college advising, orientation and student success courses, including advising that encourages early entry into a program stream that leads to a major.
8. Invest in professional development to prepare faculty for pedagogical and curricular changes and promote faculty leadership in the reform process.
9. Leverage technology to support individualized student planning, tracking, degree audit, and early warning systems.
10. Design financial aid to encourage and reward student progress.

These 10 recommendations remain relevant and compelling. Still, now that Completion by Design is two years deeper into its work, Jobs for the Future feels the list warrants some updating and reprioritizing.

STEP 2: PRIORITIZE POLICY CHANGES IN SUPPORT OF TRANSFORMATIONAL CHANGE

The Jobs for the Future Postsecondary State Policy Team has spent three years closely supporting the work of the cadre colleges and our state partners using recommendations made in *Cornerstones of Completion* in 2012 (see box on page 18). *Policy Meets Pathways* updates those recommendations, seeking to meet the demand for a full transformational redesign of state policy environments. The new set of policy recommendations touch on areas not often raised in state policy debates, such as student supports and professional development, but that colleges say are essential to transforming institutional culture.

We believe the seven high-leverage state policy priorities that follow are actionable and achievable for states.

1. Create a framework encouraging colleges to streamline program requirements and create clearly structured programs of study.
2. Encourage colleges to redesign developmental education into accelerated on-ramps to programs of study.
3. Support colleges in developing and implementing a suite of research-based, wraparound student support services that propel students through to completion.
4. Ensure that structured pathways lead to credentials and durable competencies that allow students to build on their skill sets, continuously adapt to thrive in the fast-paced and constantly evolving global economy, and access robust career opportunities.
5. Support colleges' strategic use of data, with a particular focus on creating statewide data systems that track students through their postsecondary educational experiences and into the labor market, extending the data use of colleges with limited institutional research capacity, and expanding the use of real-time labor market information.
6. Create financial incentives to encourage both institutional and student behaviors that increase student persistence and completion.
7. Invest professional development dollars in statewide structures that create intensive, authentic faculty engagement and move efforts to increase college completion toward a deeper focus on teaching and learning.

The following section describes each policy priority in detail and outlines the rationale and evidence base for the action.

POLICY PRIORITY 1: CREATE A FRAMEWORK ENCOURAGING COLLEGES TO STREAMLINE PROGRAM REQUIREMENTS AND CREATE CLEARLY STRUCTURED PROGRAMS OF STUDY.

One of the most important principles of designing structured pathways is that academic programs of study themselves be structured to provide students with guidance and clear routes to completion. The goal: to reduce student meandering caused by an overwhelming array of course options, unclear program requirements and a lack of guidance.

Creating structured programs of study requires at least the following steps:

- > Analyzing programs of study to streamline requirements.
- > Reviewing existing course offerings to eliminate redundancies and confusing or outdated information.
- > Ensuring that required courses are offered when students need them and course schedules are predictable.
- > Setting up smart, manageable program offerings that make sense to students.
- > Providing easily accessible information on courses and programs and plenty of guidance to help students make good choices.

Models of Practice

One example of a college undergoing this process is Miami Dade College's Medical Campus. In consultation with its Health Information Management Advisory Board of employers, it stacked and latticed its health informatics pathways to create a Health Information Career Certificate Ladder that visually demonstrates student pathways to certificates and degrees. MDC then mapped out highly structured curricular guides for its programs. The guides clearly identify course choices and a logical sequence for taking them. These guides provide advisors with a protocol for advising students and keep students on track to completion.

States can provide incentives and implement policies to help their colleges create structured pathways and adopt the structured pathways agenda. Three policy examples include meta-majors, well-designed transfer pathways, and curriculum improvement projects.

- > As noted earlier, via SB 1720 state legislators mandated that the Florida Board of Education develop a series of **meta-majors** and identify appropriate gateway courses in English and mathematics for each meta-major. This would align gateway courses with a student's intended academic and career goals. In response, in October 2013, the board promulgated a new rule specifying eight meta-major academic pathways and gateway courses associated with each meta-major (e.g., health sciences, business, and education). Upon enrolling in a Florida College System institution, students will choose a meta-major. Based on a number of measures documenting a student's achievement, an advisor will recommend a set of courses. Students will then be encouraged to enroll in English and math gateway courses and other introductory courses relevant to their particular meta-major, setting them on a pathway towards completion of a program within their broad area of program interest.

- > Statewide **transfer pathways**, if designed well, can establish the foundation on which both two-year and four-year institutions can build structured pathways beginning at the community college.²⁰ Critical design features include:
 - » Transfer pathways are mapped backwards from the learning outcomes required for majors at partner baccalaureate institutions.
 - » Students enter early into meta-majors having clearly understood the academic requirements and their elective choices.
 - » Meta-majors are mapped to a statewide agreement that has streamlined and made transparent a well-defined general education core that targets appropriate requirements while limiting student accumulation of excess credits.
 - » The colleges commit to a high level of student advising, scheduling, and degree planning.
- > North Carolina's community colleges undertook a **Curriculum Improvement Project** (CIP) that is helping them to implement structured pathways in technical education

In the 2014 report, *Driving the Direction of Transfer Pathways Reforms*, Jobs for the Future advocated a “three-legged stool” approach to improving transfer.²¹

- > **Principle 1:** Emphasize incentives for both students and institutions.
- > **Principle 2:** Encourage serious, directed cross-institutional working meetings of faculty and student services staff to iron out transfer details.
- > **Principle 3:** Support structured transfer pathways to completion via state policy.

State policies and incentives should encourage colleges to:

- » **Step 1:** Help students set their sights on the destination. Ensure learning outcomes of community college programs align with the specific major requirements of partner four-year institutions.
- » **Step 2:** Map out straight and clear pathways to credentials and transfer requirements. Define clear and efficient routes toward junior standing and on to baccalaureate completion in specific majors at partnership universities.
- » **Step 3:** Build on-ramps for underprepared students. Accelerate the acquisition of basic skills while guiding students into transfer programs of study.
- » **Step 4:** Track each student's journey and enable them to know the consequences of their choices. Monitor student progress, providing frequent feedback and support as needed.

programs. The Code Green Super CIP focuses on programs in building, energy, environment, transportation and engineering. It responds to the need to review existing curriculum programs in light of employers' calls for new and emerging skills in their prospective workers. The CIP engaged more than 200 faculty members from across the 58-college system to review existing courses, revise curriculum standards for statewide use, and integrate employability skills across the curriculum. The result is a more streamlined approach to in-demand, stackable degrees and nationally recognized certifications, with 80 curriculum standards consolidated into 32; the elimination of 92 courses, the addition of 47 courses and the revision of 219 courses; and the incorporation of Student Learning Outcomes recommended by the CIP into the Common Course Library.²²

Rationale and Evidence to Support this Policy Recommendation

A solid body of research suggests that students need better guidance when selecting programs, fewer confusing options, earlier entry into programs, and more structure as they navigate their academic experiences.²³ Meta-majors, structured transfer pathways and CIPs all seek to address these findings.

Davis Jenkins and Sung-Woo Cho's study, *Get With the Program*, has been highly influential, finding that students entering a program of study within a year of enrollment are far more likely to earn a credential.²⁴ Indeed, *Get With the Program* has served as a beacon for the work of Completion by Design. *Get with the Program* aligns with earlier longitudinal research by Clifford Adelman that found that credit accumulation in the first year is a key determinant of student success.²⁵

Another highly cited research paper is Judith Scott-Clayton's *The Shapeless River*, in which she concluded that lack of structure and too many academic options inhibit student progress and completion.²⁶ Melinda Mechur Karp has added a strong voice to the work, arguing that if we are going to encourage more students to enter into programs of study early, we need to be sure that they receive frequent advising that integrates career counseling, to help students make well-informed program choices.²⁷

POLICY PRIORITY 2: ENCOURAGE COLLEGES TO REDESIGN DEVELOPMENTAL EDUCATION INTO ACCELERATED ON-RAMPS TO PROGRAMS OF STUDY.

“Time matters” is the new mantra in developmental education, where student outcomes historically have been disappointing. Research and evaluations show that courses designed to “accelerate” student progress through developmental education and into credit-bearing courses produce better outcomes for most students than slower methods.²⁸ One study found improved results in compressed-format courses, for example, including when results were disaggregated and analyzed by age, gender and ethnicity.²⁹ Acceleration has not been proven to be as effective for community colleges’ least-prepared students, however. While further testing and research is greatly needed to find effective solutions for students with the most severe academic needs, acceleration holds great potential for the majority of students in community colleges. Colleges are pursuing a number of avenues to move students through developmental education more quickly, including compressing courses, co-enrolling students in developmental education and college-level courses, and providing basic skills support in a just-in-time format.

Models of Practice

States are encouraging colleges to redesign developmental education in a number of ways. North Carolina, Virginia and Colorado recently implemented system-wide redesigns of developmental education in collaboration with faculty, got approvals from the system boards, and rolled them out statewide with extensive collaboration with the community colleges. Other states are passing legislation to require redesigns. As noted earlier, this is not always the most effective approach. In Florida, SB 1720, passed in 2013, limits all developmental education to four accelerated models—co-requisite, compressed, modular, and contextualized. All are designed to minimize the time required for students to achieve college-ready status. Connecticut’s PA1240, passed in 2012, similarly requires colleges to embed developmental support into corresponding college-level courses for students who are near college-ready, or to offer an intensive, one-semester, college-readiness program for students testing below the 12th grade level beginning in 2014.³⁰

While accelerating most students through developmental education is critical work, it is not enough. The redesign of developmental education offers an opportunity to turn a program often viewed as a hurdle to be overcome into an on-ramp for programs of study. State policies can direct students to the on-ramp through a number of strategies:

- > **Ensure that students receive strong advising** before they enter college and select a broad program stream or meta-major, such as business, allied health or education. Then direct students toward developmental education that is relevant to their program stream (e.g., perhaps a student needs a statistics-based developmental math rather than one that is algebra-based).
- > **Embed advising into developmental education** so that students are encouraged to consider their program choices, maintain their momentum, register for relevant courses, and enter into a coherent program that leads to completion.
- > **Contextualize developmental education** so that students receive basic skills instruction that is relevant to their program and to their career field (e.g., reading support that helps students understand medical terms for allied health fields).

Rationale and Evidence to Support this Policy Recommendation

The Accelerated Learning Program (ALP) at the Community College of Baltimore County is a leading model for accelerated developmental education. ALP is called a “co-requisite” program because it places students who qualify for a prerequisite developmental course into a college-level English composition class, followed back to back by a three-credit companion basic skills course.³¹

Results from a 2010 quasi-experimental study found that 82 percent of ALP students passed the introductory college-level course (English 101) within one year, compared with 69 percent of non-ALP students in the upper-level developmental writing course (English 052).³² The study, conducted by the Community College Research Center, also found substantially improved completion of the subsequent English course (English 102). A 2012 follow-up study corroborated the 2010 analysis and also found that ALP students were more likely to persist to the next year and attempt and complete more college-level courses.³³ CCRC’s cost-benefit analysis concluded that ALP is a more cost-effective pathway to passing English 101 and 102 than the traditional route.

There are many other solid examples of success with accelerated developmental education, including:

- > **Austin Peay State University** in Tennessee reports that a co-requisite approach to developmental math has more than doubled its student success rates. Austin Peay eliminated its two remedial math courses and instead enrolled students into entry-level college math courses complemented by a co-requisite workshop. For the Elements of Statistics course, pass rates rose from 23 percent to 54 percent. In Mathematical Thought and Practice, pass rates increased from 33 to 71 percent.³⁴
- > **Washington State’s Integrated Basic Education and Skills Training (I-BEST)**, which combines basic skills and occupational training in the same courses, is considered a pioneer in contextualized instruction for adults. It delivers basic skills alongside course content, helping students “move through school and into jobs faster.”³⁵ Quasi-experimental studies have found that I-BEST students complete more credits, have higher persistence rates, and are more likely to earn a certificate than their peers.³⁶ Washington State’s experience with I-BEST for basic skills has led the system to start offering I-BEST for developmental education as well.³⁷
- > The **California Acceleration Project** supports a variety of accelerated models. At one of its member colleges, Chabot College, students self-place into either a two-semester developmental sequence or an accelerated one-semester course that integrates reading and writing. The Acceleration Project reports that students in the accelerated courses achieve significantly higher completion rates of college-level English than students who take the traditional, longer developmental education sequence.³⁸

POLICY PRIORITY 3: SUPPORT COLLEGES IN DEVELOPING AND IMPLEMENTING A SUITE OF RESEARCH-BASED, WRAPAROUND STUDENT SUPPORT SERVICES THAT PROPEL STUDENTS THROUGH TO COMPLETION.

The community college reform field is increasingly recognizing the *need* to invest more heavily in student supports and engagement. Because of historical funding deficiencies as well as varied missions, community colleges have not built the types of wrap-around services characteristic of better-resourced institutions with higher student success rates. But as the Center for Community College Student Engagement notes, student engagement “is an important predictor of college completion.”³⁹

It will not be easy for states and their community colleges to navigate this growing emphasis on student supports. There are real financial implications, and states and colleges will need to make difficult decisions about where to place investments, and how to reallocate costs to cover such services as advising. But as Director Emeritus of the Center for Community College Student Engagement Kay McClenney notes, it’s time, and it’s possible, if colleges are willing to make hard decisions: “First you have to decide to do it. Then you have to decide what to stop doing.”⁴⁰

Stemming from its work with Completion by Design, Miami Dade College recently made just such a hard decision. After redesigning its student intake processes, Miami Dade analyzed its student data and learned that retention rates for incoming students who met with an advisor and mapped out an academic plan were 8 percentage points higher than for students who did not. The college made the strategic decision to fund 25 new full-time advisor positions (requiring master’s degrees) and invested \$1 million of operating funds to pay for them. It is already reaping the benefit of additional revenue stemming from improved retention rates.⁴¹ Joaquin Martinez, associate provost for student achievement initiatives, observed that “the research on the impact of student advising was too compelling to ignore; our faculty and staff agreed we needed more advisors, and our leadership figured out how to pay for them.”

McClenney also advocates that services for personal and academic support of students need to be reconceived to the same level as is now being encouraged for academic programs. Much as colleges are redesigning how their programs of study are structured, marketed, registered for, and paid for, so must we redesign how support services are structured, marketed, and paid for and accessed by students. Most importantly, we must look at how those supports are integrated consistently into academic and career pathways in ways that are discipline-appropriate. McClenney notes that some services traditionally delivered one-on-one, such as advising, can be delivered more cost effectively in groups, which provide the added benefit of creating opportunities for students to engage with each other and build supportive relationships. In addition, just having student services available—without strongly encouraging or even requiring students to use them—doesn’t work well. As McClenney famously noted, “Students don’t do optional.”

Models of Practice

Student supports have been the historic domain of the colleges. Nonetheless, states can support their colleges as they make decisions about how to transform their student supports. Examples include:

- Helping colleges analyze and prioritize cost allocations and return on investment, leading to deeper investments in student supports.
- Allocating professional development funds to student support staff.
- Increasing state appropriations to cover student support staff salaries.
- Disseminating research on evidence-based models of student supports that are effective and efficient.
- Providing funding for non-course-based experiences for students such as brief skills intensives and work-based learning experiences.
- Bringing together academic and student services staff. For example, participation in the Virginia Community College System's Chancellor's Developmental Education Institute is split 50/50—half faculty and half student services providers. The institute content focuses half on new teaching techniques for redesigned developmental education, and half on student support, with the ultimate goal of strengthening the integration of academic and student support services.
- Developing legislation or guidelines that require colleges to provide more frequent advising. For example, Florida's HB 7135 requires that all Florida College System students seeking an associate degree specify a bachelor's degree program offered by an institution of interest by the time they earn 30 semester hours. Colleges must advise students on their requirements for completion and transfer at that time as well.

Rationale and Evidence to Support this Policy Recommendation

Research on the impact of student supports is not as strong as we would like, largely because the use of intentional student support structures at anything approaching scale is new. In fact, many studies find that the effects decrease over time.⁴² There are, however, promising advances in scaled student success reforms underway and existing, compelling data that suggest student supports are a worthy investment as part of structured pathways:

- The Community College Research Center found that students who enroll in student success courses during the first semester of college are more likely to earn college credits in the first year and to persist to a second year.⁴³ Earlier research on Student Life Skills courses in Florida similarly found that students were more likely to persist in college, attain a credential, and transfer to a four-year Florida state university.⁴⁴
- The Center for Community College Student Engagement analyzed 13 common student support activities—ranging from academic goal setting to orientation, student success courses and tutoring—and determined that all but one (registration before classes begin) had a notable impact on students' engagement.⁴⁵

- > In *The Shapeless River*, Judith Scott-Clayton concluded that community college students' progress and completion are stymied by a lack of structure and too many academic options.⁴⁶
- > A study by Ron Ehrenberg and Douglas Webber reported that a \$500/student increase in student services produced a bump in six-year graduation rates of 0.7 percent. Not surprisingly, increased funding for student services produces a more meaningful impact for institutions educating a higher number of low-income and underprepared students—typically those institutions that are under-resourced in our educational system in the first place.⁴⁷
- > Reflecting upon the community college reform field's recent research advances, Lashawn Richburg-Hayes with MDRC noted that there are “no magic bullets,” but integration of multiple interventions may be the key to improved student outcomes.⁴⁸

The City University of New York's (CUNY's) Accelerated Study in Associate Programs (ASAP) serves as a useful example of a program that provides students with wrap-around supports to great effect. Students are encouraged to set a goal of graduating within three years and to complete their developmental requirements as early as possible. During the first year, students take courses with a cohort of students grouped according to major. Courses are block scheduled to help students balance the demands of school, work and home, and students are required to enroll full-time. ASAP offers a variety of student services, including tutoring, career advice, job placement, and a seminar that teaches student success skills. Students are required to meet with their advisors at least twice per month, and advisors' caseloads are intentionally small (60-80 students) to provide a more individualized experience. ASAP also meets students' financial needs, waiving any difference between financial aid and tuition and fees, and providing free textbooks and public transportation.

MDRC conducted a random assignment evaluation of ASAP, targeting low-income students at three CUNY colleges who needed one or two remedial courses and were willing to enroll full-time.⁵⁰ MDRC found evidence of positive impacts on full-time

“RECENT RESEARCH BY MDRC AND OTHERS SUGGESTS THAT COMPREHENSIVE, INTENSIVE, AND EXTENDED INTERVENTIONS MAY BE NECESSARY TO SUBSTANTIALLY IMPROVE ACHIEVEMENT AMONG COMMUNITY COLLEGE STUDENTS IN THE LONG RUN.”⁴⁹

enrollment and credits earned during the first semester, and on retention into the second semester. Perhaps most impressive is a 15 percentage point bump in the proportion of students completing their developmental courses in their first semester. MDRC says ASAP is one of the most promising community college programs it has studied.⁵¹ CUNY's own internal, quasi-experimental study of ASAP found a 56 percent three-year graduation rate for ASAP students, compared to a 23 percent three-year graduation rate for a constructed comparison group.⁵²

—SCRIVENER, WEISS & SOMMO 2012

POLICY PRIORITY 4: ENSURE THAT STRUCTURED PATHWAYS LEAD TO CREDENTIALS AND DURABLE COMPETENCIES THAT ALLOW STUDENTS TO BUILD ON THEIR SKILL SETS, CONTINUOUSLY ADAPT TO THRIVE IN THE FAST-PACED AND CONSTANTLY EVOLVING GLOBAL ECONOMY, AND ACCESS ROBUST CAREER OPPORTUNITIES.

Thus far, the majority of efforts to build structured pathways have focused on getting students into programs of study, restructuring the curriculum and program structure, and keeping students in the programs. By necessity, the states and colleges tackled a manageable chunk of the work—focused on students’ connection and entry into college—and it has been great work. But a missing element, and a vital next step, is to link structured pathways (both short- and long-term) to the labor market and dynamic career opportunities, building out the “completion” end of the student experience.

Structured pathways that do not lead students to well-paying, promising jobs can in fact be damaging to many community college students. Community colleges disproportionately enroll low-income students who come to college looking for a career pathway. The quality of the education delivered is, of course, paramount. But the vast majority of our students *want* and *need* their educations to lead them into careers with family-sustaining wages, benefits and opportunities for advancement. The effectiveness of structured pathways therefore hinges on the ability of states to ensure alignment with the current and emerging needs of employers, so that our students’ aspirations are met.

Models of Practice

Ohio Means Internships and Co-ops (OMIC) combines state and private funding to increase opportunities for students and employers to benefit from work-based learning experiences. Colleges and their partners compete for funding to establish internships and co-ops; matched private funding is required. A web portal allows students to search opportunities and post resumes, and employers to seek out talent.⁵³ Minnesota’s SciTechsperience program similarly provides state funding to cover up to half of the compensation for STEM students at community colleges and other higher education institutions that participate in internships with small- and mid-sized employers; funding has been appropriated for at least 125 internships in 2014-15.⁵⁴

The Pathways to Prosperity framework is designed to help states create career pathways in grades 9-14 with the goal of providing students systematic, sustained exposure to the world of work and careers, and an educational experience that integrates academic and technical skills leading to a postsecondary credential with value in the labor market.⁵⁵ A collaboration between Jobs for the Future and the Harvard Graduate School of Education, the initiative is helping young people complete high school, attain a postsecondary credential with labor market value, and get launched in high-demand careers that can provide the basis for further advancement. Participating states (Arizona, California, Delaware, Georgia, Illinois, Massachusetts, Missouri, New York, Ohio, and Tennessee) are using existing and new sources of funding to strengthen and modernize their career and technical education programs, expand such innovations as early college high schools and career academies, and build career pathways that span the last years of high school and the first two years of postsecondary education.

These programs bring together regional employers, community college leaders, and K-12 leaders to design programs aligned with regional labor market needs and that lead to technical degrees or industry-specific certificates and credentials in areas of high demand.

Jobs for the Future has also worked closely with the Kentucky Community & Technical College System (KCTCS) to pilot the Dynamic Skills Audit (DSA) at all 16 of the KCTCS colleges.⁵⁶ The DSA combines the use of labor market information (both traditional and real-time) with a thoughtful and structured employer engagement process to ensure that the community colleges' curricula are meeting employer needs. Through the DSA, colleges systematically analyze occupations to identify skill and credential requirements; compare the identified skills called for by employers with the curricula offered; verify findings through employer conversations; and then launch a continuous improvement process to monitor and analyze curricular offerings.

States can play a critical role in linking structured pathways to exciting career opportunities by:

- Aligning statewide community college priorities with state economic development needs and strategies.
- Conducting curriculum improvement reviews that evaluate short-and long-term structured pathways to ensure they include durable competencies, including employability skills, critical thinking, resilience, flexibility, etc. that allow students to adapt to a mercurial economy and changing labor market conditions.
- Integrating work-based learning opportunities into structured pathways as a means of delivering work experience to students and integrating employability skills into the educational experience.
- Providing guidance to colleges on strategically engaging employers in ways that go far beyond routine employer advisory boards to meet accreditation requirements.⁵⁷
- Establishing incentives for employers to be active partners in developing career pathways, developing curricula, offering work-based learning, and developing state priorities.
- Studying and making transparent the labor market value of pathways, including the degree to which credentials can be built upon (stack/transfer) and the skills students need to be successful in transfer and the labor market.
- Integrating real-time labor market information into their data systems (*see policy priority #5 for more detail*).
- Delivering robust and sophisticated counseling and advising to help students navigate complex labor market information, information on whether or not credentials stack (and how they stack), and information on transfer (*see policy priority #3 for more detail*).

Rationale and Evidence to Support this Policy Recommendation

Both research and common sense support the need to link structured pathways to career opportunities, and to improve employer engagement. A brief issued by the U.S. Department of Labor's Employment and Training Administration reported that successful career pathways programs partner with industry and employers in program development and that they create "incremental" pathways—"a mix of short-term, moderate-term, and long-term training [that] maximizes participation while promoting job growth."⁵⁸

Work-based learning goes beyond internships, to integrate education and training into the workplace. Students are offered experiences to learn on site, and curricula are adapted to employer needs. An evaluation of Jobs to Careers—an initiative that focused on work-based learning for frontline healthcare workers—found that participants had high retention levels and certification rates; two-thirds of program completers received a wage increase, and participants overall reported greater job satisfaction.⁵⁹ The evaluators reported benefits to employers, as well, including greater employee retention, cost savings and improved quality and productivity.⁶⁰

Pennsylvania built out robust industry partnerships that bring together employers, education providers and workforce agencies in a more strategic manner than is typical of employer advisory boards. By 2011, Pennsylvania had trained over 91,000 workers and job-seekers in 11 targeted industry sectors through more than 60 partnerships, representing 6,300 employers as well as labor organizations and higher education and workforce development stakeholders. Employers reported an 88 percent satisfaction rate with Pennsylvania's industry partnership initiative, and 84 percent said it increased productivity.⁶¹

POLICY PRIORITY 5: SUPPORT COLLEGES' STRATEGIC USE OF DATA, WITH A PARTICULAR FOCUS ON CREATING STATEWIDE DATA SYSTEMS THAT TRACK STUDENTS THROUGH THEIR POSTSECONDARY EDUCATIONAL EXPERIENCES AND INTO THE LABOR MARKET, EXTENDING THE DATA USE OF COLLEGES WITH LIMITED INSTITUTIONAL RESEARCH CAPACITY, AND EXPANDING THE USE OF REAL-TIME LABOR MARKET INFORMATION.

Increasing numbers of colleges across the country are immersed in the process of creating structured academic pathways that lead students to completion. Colleges are redesigning intake processes, streamlining program requirements, and creating wrap-around student supports. This is critical work.

Creating pathways will only pay off, however, if the pathways lead students to completion and then to solid opportunities for career advancement and further education. Data collection and analysis become a necessary component of this work for a number of reasons. Data tell us whether students are progressing through and completing programs, and whether programs are meeting labor market needs. They let us strike a balance between flooding the market with too many graduates and putting students on wait lists for programs they will never have the opportunity to access. Finally, data analysis allows leaders to examine the results of interventions and innovations and make needed changes.

Models of Practice

Some colleges have developed a sophisticated data capacity and are using it to great effect. They look at student outcomes by course, and disaggregate outcomes by factors such as gender, age and race and ethnicity. They have developed a process to react to that data, challenging departmental leaders to review teaching assignments and ensure that courses are being taught effectively. They have applied research that says the next step for data use is to “better connect the data collected and reported to the primary focus of faculty on instruction, and . . . to engage student services staff more in the use of data on student progression.”⁶² These activities are exemplary, but also rare.

States can play a critical role in supporting colleges' use of strategic data by ensuring that:

- Colleges have access to robust statewide data systems that link to labor market outcomes.
- Institutional research (IR) staff have access to professional development designed to expand their capacity for data use.
- Poorly resourced colleges with small (or non-existent) IR departments can augment their capacity through statewide staffing agreements and professional development.
- Integrated Postsecondary Education Data System (IPEDS) and other reporting tasks are reduced/streamlined for colleges (e.g., in California, the Chancellor's Office submits data to IPEDS), thereby freeing up IR resources for more pathways-focused inquiry.

- > Real-time labor market information can be used to confirm that academic programs lead to concrete job opportunities for students and that curricula address the skills that employers are seeking.
- > Advisors and career counselors guide students through useful, applicable information—including about the labor market—so that they choose programs that will lead to completion and robust job opportunities.

What can states do to better support their colleges' data capacity? Consider the following actions:

- > Create and maintain longitudinal statewide data systems that track students through their postsecondary educational experiences and into the labor market, providing timely and accurate information about graduates' job attainment and earnings.
- > Evaluate vendors and create purchasing agreements for data systems, analytics and real-time labor market information licenses that help colleges pool resources and gain economies of scale.
- > Create regional data-sharing agreements so community colleges can track graduates who move across state lines.⁶³
- > Help colleges join collaborations that extend their capacity and introduce them to cutting-edge practices.⁶⁴
- > Provide professional development for IR staff.
- > Hold statewide forums that bring together IR, faculty and academic and student services staff in structured environments to analyze and make decisions about college data.
- > Provide professional development for advisors and career counselors to identify and package information about pathways to “best bet” careers and the skills needed to succeed in them.⁶⁵

Rationale and Evidence to Support this Policy Recommendation

Experts in the field agree that using data is critical to the completion movement so that community colleges can assess institutional performance, set goals for improvements, and disaggregate data to pinpoint when and why students leave their colleges.⁶⁶ There are many examples where specific uses of data, when combined with reflection, strategy development, and implementation, have resulted in marked improvements in key student outcomes. Winners of the Aspen Prize for Community College Excellence are examples. Indeed, the Aspen Institute College Excellence Program has been analyzing the performance of hundreds of colleges for several years. It is notable that the institute cites the use of data as one of the key factors that makes a college “excellent,” observing, “Successful schools build the research and information systems necessary to analyze and synthesize data about student outcomes and needs, and their leaders are skilled at making everyone aware of—and invested in using—that information.”⁶⁷

Since the early days of Achieving the Dream, colleges have been encouraged to build a “culture of evidence” or a “culture of inquiry” that forces them to honestly assess their performance. As Monica Reid Kerrigan and Davis Jenkins of the Community College Research Center noted, “To increase rates of persistence and graduation, it is essential that faculty, student services staff, and administrators at community colleges are actively engaged in understanding the outcomes of the students at their college.”⁶⁸ The Data Quality Campaign similarly asserts, “Student-level data shine a light on what is working, so decisions at all levels are informed by high-quality data aimed at improving the achievement of every student.”⁶⁹

In recent years, the field has also made solid advances in analyzing real-time labor market information culled from current job postings to help understand the skills employers seek, the market demand for certain skills and the opportunities and wages offered by specific jobs and fields. There is solid agreement in the field—ranging from the Aspen Institute to experts on the American Association of Community Colleges’ 21st-Century Commission on the Future of Community Colleges and Jobs for the Future’s own Credentials that Work initiative—that using labor market information to ensure that students are accessing solid opportunities is a priority.⁷⁰

POLICY PRIORITY 6: CREATE FINANCIAL INCENTIVES TO ENCOURAGE BOTH INSTITUTIONAL AND STUDENT BEHAVIORS THAT INCREASE STUDENT PERSISTENCE AND COMPLETION.

To genuinely focus community colleges and their students on completion, the completion agenda seeks to be comprehensive and therefore transformative, ranging from the initial connections students make to college all the way through to job advancement. For too long, finance structures in higher education—both funding for colleges and financial aid for students—have incited student enrollment, but not completion. Performance-based funding and scholarships are not silver bullets; they will not solve the completion problem. But they are two incentives that point in the right direction: toward completion.

Models of Practice

Financial aid policies designed to encourage progress—often referred to as performance-based scholarships—show some promise for motivating students to continue their studies. They make financial aid awards based on students' achievement of certain milestones, such as attending advisor sessions, completing courses, and returning in subsequent semesters. National research organization MDRC is running an extensive demonstration project designed to test the most effective approaches to the scholarships.

Ohio's community colleges are now operating under a new outcomes-based funding system. A core recommendation of the Ohio Higher Education Funding Commission was that, "The funding for community colleges in Ohio should transition from a system that mainly rewards enrollment in classes to one that rewards the completion of classes, certificates and degrees."⁷¹ The commission recommended that *no* community college funding would be awarded based on enrollment by the second year of the new funding system's implementation.

Ohio's new community college formula was deliberately structured to reward colleges for meeting the student persistence and completion goals of Completion by Design. The Completion by Design colleges, and their state policy partner the Ohio Association of Community Colleges, worked to align the new funding formula to the types of performance called for by Completion by Design's Key Performance Indicators. Sample measures include such milestones as students earning their first 30 credit hours, students completing their first developmental course, and students completing the associate degree.⁷²

Rationale and Evidence to Support this Policy Recommendation

The focus on outcomes-based funding contingent on student persistence and completion represents a shift in the thinking of higher education leaders. According to the National Conference of State Legislatures, 25 states are now operating under formulas that allocate funding based on performance measures such as course completion and degrees awarded, and five more states are currently transitioning.⁷³

As noted earlier, Jobs for the Future's Postsecondary State Policy team does not see outcomes-based funding as a silver bullet. Many states are now operating under a new set of principles for implementing outcomes-based funding—often referred to as 2.0—that hold promise for improving both the approach and results of outcomes-based funding. But researchers have not yet been able to rigorously evaluate the new approaches. Research on existing models—often referred to as 1.0—suggests that outcomes-based funding for colleges has not had a significant impact on student outcomes.⁷⁴ The Community College Research Center has concluded that outcomes-based funding does seem to encourage colleges to make changes in areas such as academic and student services policies, but, “Most careful quantitative analyses of the impacts of [early approaches to performance-based funding] on retention and graduation rates have not found statistically significant impacts.”⁷⁵

The experience of the past decade of the completion movement shows that no one intervention will produce the systemic change we need. Numerous factors must be in place. Outcomes-based funding is one of many incentives states can use to steer community colleges toward completion. Jobs for the Future's Postsecondary State Policy team advocates a holistic redesign of state policy contexts. Outcomes-based funding should be approached as part of that effort—to ensure that all incentives point toward completion—not as a stand-alone effort that is expected to produce significant changes on its own.⁷⁶

The research on performance-based scholarships is more significant. An MDRC experimental design study of Louisiana Opening Doors, a performance-based scholarship program at two community colleges in Louisiana, showed promising results. Through Opening Doors, low-income parents received counseling and \$1,000 for two semesters if they enrolled at least half time and maintained an average grade of “C” or better. MDRC found positive outcomes among scholarship recipients—for example, they passed more courses, earned more credits, and were more likely to stay in college in later semesters.⁷⁷ A follow-up study on performance-based scholarships in New Mexico, New York, and Ohio found increases in full-time enrollment and credits attempted and earned as well as reduced loan debt; outcomes for student persistence were mixed.⁷⁸ Most of these studies suggest modest improvements, but based on extensive analysis, MDRC maintains that “performance-based scholarships can improve some important components of academic success.”⁷⁹

POLICY PRIORITY 7: INVEST PROFESSIONAL DEVELOPMENT DOLLARS IN STATEWIDE STRUCTURES THAT CREATE INTENSIVE, AUTHENTIC FACULTY ENGAGEMENT AND MOVE EFFORTS TO INCREASE COLLEGE COMPLETION TOWARD A DEEPER FOCUS ON TEACHING AND LEARNING.

The college completion movement, now a decade old, has tackled smart and worthwhile changes in the areas of time and structure, such as shortening the time it takes students to complete degrees, ensuring that students don't meander through courses that don't lead to a credential, and restructuring the sequences and delivery of developmental education.⁸⁰

The completion movement has not, as of yet, focused much on teaching and learning. What happens inside a classroom is seen as the faculty's domain, sacred ground that state activities cannot and should not touch. Tackling academic time and structure are hard work and serious challenges, but they are easier than prying open the classroom doors.

But that view sells the faculty short. They are the rightful masters of what happens in their classrooms. But they also care about teaching and learning, and statewide activities (not mandates)—when done well, and when designed to engage faculty in evidence-based professional development—can help improve teaching and learning.

State agencies often spend money on conferences that are well meaning but low on impact. Faculty drive in for the day, attend a few sessions, and go home. States can reallocate the money they are already spending on conferences to an entirely different model that leads to far more robust professional development and engagement.

First and foremost, state convenings to engage faculty should be designed and led by faculty themselves. When it comes to encouraging faculty to test out new approaches to teaching and learning, the single most effective strategy is for faculty to talk to faculty. Faculty who have tested new approaches, and seen improved student outcomes as well as improved faculty morale, are the most compelling advocates for changing approaches to teaching and learning.

States should also structure faculty engagement activities in ways that adhere to the literature on suggested practices for professional development.⁸¹ Team-based professional development—wherein the state supports attendance of a team from a college rather than an individual—will help those in attendance to develop a cohort focused on similar issues and to collaborate for problem-solving. A team-based approach represents a break from the long tradition of individual faculty members attending a professional development or conference and then returning to a campus of uninitiated—and therefore likely unconvinced—colleagues.

States should also pay attention to the engagement of adjunct faculty, who now teach the majority of community college courses. Drawing in adjunct faculty will likely require creativity and investment. Some colleges are beginning to pay their adjunct faculty to attend professional development event or conference, for example.

In addition, new models for professional development should be designed to sustain faculty attention over the long term and work towards a goal. Rather than bringing

people together once a year, the effort should seek to create a cohort that interacts over a sustained period of time. Between face-to-face meetings, the initiative should regularly communicate and share ideas—and perhaps even require activities or deliverables that help the participants to reach a relevant goal.

Another principle of good professional development is to make it active and engaging, rather than lecture-based. Much as teaching practices are moving more and more away from the long lecture, professional development should also seek to engage participants in active learning and activities that keep them interested and invested.

Models of Practice

As an example, the North Carolina Community College System, the North Carolina Completion by Design cadre colleges, and Jobs for the Future designed a statewide **Student Success Learning Institute** (SSLI) to spread Completion by Design learning across the state's 58 community colleges. The SSLI is a year-long engagement that requires campuses to send a student-success-focused team. Between the in-person meetings, participants are engaged via an online Moodle Course, webinars and other activities. At the end of the year, each team is expected to have built a work plan for its college (see page 46 for a full description of the Student Success Learning Institute).

Rationale and Evidence to Support this Policy Recommendation

Authentic engagement of the faculty is not only common sense; it is also called for by the research and experiences of the first decade of the community college reform movement, which have consistently pointed out that the faculty have not, thus far, been adequately engaged.⁸² In addition, research on high-performing organizations consistently points to the need for frontline employees to understand and embrace change, while studies of the slow rate of change in higher education point to the need to do a better job of communicating with and empowering faculty.⁸³ The Aspen Institute College Excellence Program's very first factor in defining excellence is that, "Excellent colleges focus on teaching and learning."⁸⁴

There is a wide body of research on recommended practices related to professional development, which points to the inadequacies of the typical one-day conference as a vehicle for professional development. The research calls, instead, for efforts that are "ongoing, intensive, and connected to practice and school initiatives; [focus] on the teaching and learning of specific academic content; and [build] strong working relationships among teachers."⁸⁵

RECOMMENDATION 2

BUILD STATE STRUCTURES TO SET THE CONDITIONS FOR SCALING UP REFORM

“[R]EFORMS OF THIS NATURE MAY REQUIRE MORE EFFORT ON THE PART OF REFORMERS TO WORK WITH MULTIPLE LEVELS OF THE SYSTEM TO ENCOURAGE NORMATIVE COHERENCE AND SUSTAINABILITY. THIS SUGGESTS THAT THE MORE AMBITIOUS A REFORM, THE MORE CHALLENGING IT MAY BE TO SIMULTANEOUSLY ACHIEVE SPREAD, SUSTAINABILITY, AND DEPTH.”⁸⁶

State-level entities are critical partners in scaling up student success reforms. History has shown, quite clearly, that the spread of ideas and innovations from college to college does not happen on its own. Other colleges often view high-performing institutions such as Miami Dade College and Valencia College as anomalies rather than role models.

It is time to change that view. State-level activities—such as creating venues for faculty to engage across colleges, offering professional development about evidence-based practices, and rewarding faculty and institutions demonstrating exemplary results—can support changed practices in colleges and in the classroom. States can leverage their convening power, access to colleges, authority over innovation funding, and communications vehicles to regularly and systemically spread ideas. This is what scaling up reform is all about.

—CYNTHIA COBURN

PAUL HILL FAMOUSLY COINED THE PHRASE “ZONES OF WISHFUL THINKING,” REFERRING TO THE LIMITATIONS INHERENT IN EDUCATION REFORMS, AND THE COMPLEMENTARY EVENTS AND ACTIVITIES THAT ARE NEEDED TO ENSURE THEIR SUCCESS. THE STATE-LEVEL ACTIVITIES CALLED FOR HERE CAN HELP TO FILL IN THE “ZONES OF WISHFUL THINKING.”⁸⁷

SCALE IS “AN ONGOING PROCESS THAT STARTS BEFORE ANY STUDENTS ARE ENROLLED AND CONTINUES BEYOND REACHING THE OUTCOME TARGETS. AND IT IS ALSO ABOUT PUTTING IN PLACE SYSTEMS AND FUNDING STRUCTURES THAT HELP SUSTAIN AN INNOVATION IN THE LONG TERM.”⁹¹

—THINKING BIG,
JOBS FOR THE FUTURE

One of the goals of providing structures that support and sustain scale is to create a foundation that enables a college to take ownership and move ahead on its own. The literature on scale is strong on this point. “One of the key components of taking a reform to scale,” writes Cynthia Coburn, the University of California, Berkeley professor of education who has written one of the most influential papers defining scale, “is **creating conditions** to shift authority and knowledge of the reform from external actors to teachers, schools, and districts.”⁸⁸ The National Implementation Research Network similarly calls for an “**implementation infrastructure** that supports competent and sustainable use of innovations.”⁸⁹ Karen Rosa, director of the Arkansas Career Pathways Initiative, noted that it became clear to her early on that the state’s highly successful Pathways Initiative needed deliberate support from state-level infrastructure: “[T]here was chaos, no consistency across colleges. . . I realized that **if we didn’t have systems, it wouldn’t work.**”⁹⁰

For too long, those in the reform movement have shied away from tackling that college and state efforts are trains on their own tracks. The state-level structures described in the following pages seek to do more than just spread ideas from college to college. They aim to develop the intersections between college-led reforms and state-level activities, bringing systemic support to college efforts to build efficient, effective, evidence-based pathways to completion for our students.

The DesignForScale: State Innovation Series

The *DesignForScale: State Innovation Series* highlights innovative efforts to scale structured pathways reforms across all the community colleges in a state. North Carolina took a unique approach to faculty engagement. Ohio dove into examining state and institutional policies. Texas established a bold cross-sector advisory board. Florida leveraged legislation to spread the principles of structured pathways. Please visit <http://www.jff.org/publications/designforscale-state-innovation-series> to read brief two-page overviews of these states’ approaches.

North Carolina: Creating a Movement Through a Student Success Learning Institute

Ohio: Strengthening State and Institutional Policy Through a Student Success Audit

Texas: Finding Common Ground Through the Texas Student Success Council

Florida: Building Effective Student Pathways by Leveraging Legislation

STATE-LEVEL STRUCTURE 1.

HELP COLLEGES SET THE CONDITIONS FOR SUSTAINED REFORM THROUGH A SYSTEMATIC SELF-ASSESSMENT OF INSTITUTIONAL POLICIES AND PRACTICES.

Scale happens at many levels but begins locally. Many conditions need to be primed and ready in order to expand and embed reforms across an institution. These range from institutional policies aligned with reform efforts, to leadership that is able to respond to needed changes, to business processes that support technology solutions.

Coburn strongly encourages analyzing institutional policies when scaling up reforms. She criticizes existing efforts to scale for focusing too much on spreading reforms but not enough on mechanisms to embed reforms into “policy and routines.”⁹²

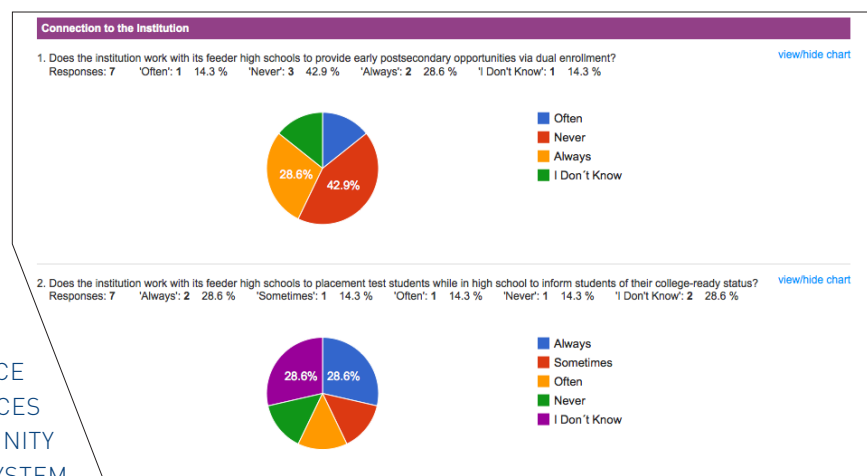
In working with the Ohio Completion by Design cadre colleges, Jobs for the Future has developed a tool for colleges to use in taking a deep look at every institutional practice and policy in light of the goal to improve student success and completion. The tool, called the *DesignForScale: College Self-Assessment Tool* (see Figure 2), analyzes the degree to which business processes, longstanding practices and de facto policies support completion. Dr. Kathleen Cleary, Managing Partner Director of the Ohio cadre, says colleges saw the tool as an “opportunity to take a disciplined approach to evaluating current policies,” allowing the colleges to set the conditions for sustaining Completion by Design reforms.

Launching a self-assessment is a critical exercise. It lets faculty and staff engage in substantive conversations about their institution’s policies and practices and it reveals which areas they cannot tackle on their own due to state laws or regulations. It allows buy-in and heightened self-awareness, reducing the odds that faculty and staff will revert to the “old way” of doing things. It affords a culture change and fertile opportunities for states to align reforms with institutional policies—and vice versa.

Figure 2. *DesignForScale: College Self-Assessment Tool*

**“STATEWIDE CHANGE
WILL NOT HAPPEN IF
EACH CAMPUS IS NOT
READY FOR CHANGE.”**

—SHARON MORRISSEY, VICE
CHANCELLOR OF ACADEMIC SERVICES
& RESEARCH, VIRGINIA COMMUNITY
COLLEGE SYSTEM



Examples of what the *DesignForScale: College Self-Assessment Tool* can reveal

Institutions planning to implement an early alert system should consider:

- If a faculty member sees a red flag indicating that a student is off track, will he/she know what to do next?
- Has the institution implemented the training and business processes that effectively support an early alert system?

If an institution wants to implement meta-majors, designed to provide students with supports and academic advising targeted to their program interest, some questions include:

- How does the institution capture students' academic and career goals?
- Is that information communicated to advisors or faculty? How?
- Does the college require students to declare a meta-major early, set milestones for completion, and monitor progress?
- Are student goals updated if a student changes programs?

If a college wants to change its assessment and placement process to more accurately place students into developmental education by considering high school GPA as well as a placement test score (i.e., multiple measures), the college should consider:

- Does the state mandate a placement policy? Specific placement instruments?
- Can the college collect and review high school GPAs?
- Are students required to take a placement exam when they transition from non-credit programs to credit-bearing programs?

In addition, this self-assessment process can help colleges share effective changes across a state. If, for example, a college changes a withdrawal policy in a way that lowers the course withdrawal rate by 25 percent, other colleges in the state should know about that innovation.

The College Self-Assessment Tool can be used in many ways. One college followed this process:

- > The college invited a broad group of stakeholders—including faculty, staff, board members, and representatives of local school districts and employers—to complete the tool's online questionnaire.
- > JFF staff analyzed initial findings and convened participants to discuss the results.
- > College teams worked together to come to consensus about recommendations to the administration for changes to institutional policies.
- > JFF staff synthesized the results of the tool and college meetings to develop key recommendations for next steps.
- > JFF staff then met with college leadership and boards of trustees to help them develop an action plan for implementing recommendations.

A process of this kind will yield many benefits. For one, each college's stakeholders will engage in a deep conversation about how the college goes about business and why—and whether the college is proactively supporting student success. Is new educational planning software being adequately supported via business processes, for example? Do faculty know how to help students use educational planning software?

The tool also will reveal what faculty and staff need to know about existing policies, eliminating inconsistencies in enforcement. When faculty and staff are not up to date on administrative policies, it can be very challenging for students to get consistent information on how to navigate the college. The audit will result in concrete recommendations for firming up certain policies and practices that are at odds with the college's attempted reforms, and will help the college to distinguish between policies set by the board of trustees, and policies established within the institution by faculty and administration.

To find out more about how your college(s) can use the *DesignForScale: College Self-Assessment Tool*, please email JFF's Gretchen Schmidt at gschmidt@jff.org.

The assessment process also will reveal state policies that impede reform efforts and help colleges focus requests for change. Does a performance-based funding system reward the changes a college is trying to make, for example? Does state policy allow for co-requisite enrollment in developmental education and credit-bearing courses?

MAPPING THE ELEMENTS OF A STRUCTURED PATHWAY TO INSTITUTIONAL POLICY

A full audit of an institution's policies and business practices will cover everything from registration to course syllabi to graduation requirements. In support of creating structured pathways, in particular, we recommend that colleges consider the following institutional policies. These recommendations—and a sample of related institutional policy questions—are in alignment with the state policies and evidence base outlined earlier.

1. **Streamline program requirements and create highly structured programs.** Sample institutional policy questions include:
 - » Are pathways built so that students can efficiently apply courses to their programs (e.g., using general education courses to also satisfy program requirements)?
 - » Does the initial advising session encourage students to enter into a program of study?
 - » How recently/often has the institution reviewed the course catalog for redundancies, out-of-date information, etc.?
 - » Does the institution have clear, articulated pathways for students into and through programs?
 - » Are students advised to choose programs with clear value in the labor market or that lead to further education?
 - » Do pathways include intermediate milestones, such as short-term, stackable credentials?
 - » Do students have clear, articulated pathways into programs at receiving baccalaureate institutions?
2. **Accelerate students through developmental education.** Sample institutional policy questions include:
 - » Has the institution developed an accelerated approach to developmental education?
 - » Are student outcomes tracked, disaggregated, and analyzed?
 - » Do developmental education requirements vary depending on major-program area?
 - » Do developmental education students receive developmental education curricula that are contextualized based on program area?
 - » Are students required to enroll in their developmental education requirements in their first semester?
 - » Are students required to enroll in their developmental education courses sequentially?
 - » Are students encouraged to complete their developmental education requirements within a specified timeframe?

- » Are appropriate academic supports integrated into the developmental learning experiences?
- » Can students enroll in designated college-level courses while still completing their developmental education requirements?

3. Develop a suite of evidence-based student support services and make their use inescapable. Sample institutional policy questions include:

- » Does the institution have an orientation for incoming students?
- » Is orientation mandatory?
- » Does orientation include meeting with an advisor and determining the student's schedule and projected pathway through the institution?
- » What are the consequences for students who do not attend orientation?
- » Does the institution have a student success course for incoming students?
- » Is the student success course mandatory?
- » Is the student success course contextualized for the student's chosen pathway/meta-major?
- » What are the top five content areas in the student success course?
- » Do you think they are the right ones? How do you know?
- » Are students required to develop an academic plan?
- » If so, is that plan used as the basis for advising and enrollment?
- » Is there an advising intervention when students make decisions that diverge from their academic plan?

4. Use real-time labor market information in the areas of program development, curriculum development, and counseling. Sample institutional policy questions include:

- » How do you attempt to ensure that credentials have labor market value?
- » Is advising connected to labor market information, giving students information on state and regional demand and potential salary?
- » Is career counseling embedded into your programs of study?
- » Are internships, clinical placements, or other hands-on, work-based experiences coordinated with employers and integrated into each student's pathway?
- » Does the institution track job placement by program?
- » Does the institution track wage data for its graduates?
- » Do programs use job placement and wage information for student advising?

5. Provide professional development to engage your faculty and staff fully in reforms to increase college completion. Sample institutional policy questions include:

- » Are faculty taking a leadership role in student success initiatives?
- » How does the college provide strategically targeted professional development for faculty and staff? What college resources are used to do so?
- » How does the college communicate about student success initiatives to faculty and staff?
- » Do faculty systematically advise students once they have enrolled in a program of study and completed an academic plan?
- » Are advisors included in the early alert/academic interventions process? If yes, what is their role?
- » Are faculty included in the early alert/academic interventions process? If yes, what is their role?
- » Who is the primary source of information for students about transfer requirements in their specific pathway/discipline?
- » Is there a transition between general advising and faculty advising in the discipline?
- » Do advisors receive professional development on how to use labor market information to counsel students?

STATE-LEVEL STRUCTURE 2.

CREATE STRUCTURES FOR AUTHENTIC STATEWIDE FACULTY AND STAFF ENGAGEMENT.

Transformation happens one conversation at a time. Increasing student success at community colleges requires the ongoing involvement of faculty and staff. Unfortunately, engagement efforts too often fall short. The traditional one- or two-day professional development meeting produces not nearly enough understanding and investment to foster the long-term systemic change needed to improve student outcomes significantly at a single college, let alone to scale such change across a state or the nation. States need to create deliberate opportunities for discussion, sharing, learning, and long-term action among the state's community college faculty and staff. This is what leads to authentic faculty and staff engagement.

North Carolina's Completion by Design cadre is seeking to do just that. North Carolina has designed a Student Success Learning Institute to spread Completion by Design principles and learning to campus-based teams not previously involved in the cadre. Over the course of a year-long engagement, each campus team will develop an action plan for implementing Completion by Design principles. Ed Bowling, executive director of the North Carolina cadre, notes that this planning requires an ongoing process—a series of decisions, choices and changes—not a cookie-cutter replication strategy. The SSLI seeks to emulate that change process to the extent possible.

The core elements of the Student Success Learning Institute include:

- A Student Success Team from each campus comprising the chief academic officer, the chief student development officer, the director of institutional research, and a faculty member, all nominated and supported by the president.
- A two-day meeting for all teams in fall and a two-day follow-up event in spring.
- Regional technical assistance meetings in the winter.
- An ongoing Internet-based Moodle course with webinars, participatory activities and videos featuring "Aha Moments," and "What Not to Do," from the cadre colleges. Topics covered include identifying key performance indicators and their meaning, developing stakeholder engagement, creating structured programs of study, accelerating student entry into programs of study, and redesigning advising systems.
- Access to national experts and supports from the North Carolina cadre colleges, the North Carolina Community College System, and national partners including Jobs for the Future, the National Center for Inquiry and Improvement, the Community College Research Center, and Public Agenda.

The initial cohort of 27 colleges completed their first year of engagement and submitted their action plans in April 2014. A second cohort of colleges began working with the Student Success Learning Institute in fall 2014. The administrators of the SSLI are developing ideas to support the first cohort through implementation, designing a locally deployed technical assistance team, ongoing access to national experts and resources, and more robust plans for encouraging deep presidential involvement in conversations about organizational and cultural change and adaptive leadership.

Deep Learning and Engagement	✓	✓	✓	✓
	Create a cohort-based, long-term engagement of campus Student Success Teams	Create a learning process that seeks to replicate the learning process of implementing CBD principles	Provide ongoing resources, supports and activities	Build to an action plan

STATE-LEVEL STRUCTURE 3.

ENGAGE DIVERSE STAKEHOLDERS SYSTEMICALLY.

The Texas Student Success Council is a diverse group of education leaders and stakeholders that plays a crucial role in ongoing efforts to improve the success of students in the state's 50 community college districts. The council's 36 members represent all of the key players in Texas higher education, including the Texas Higher Education Coordinating Board, the Texas Association of Community Colleges, two-year and four-year colleges and universities, public school districts, employers, workforce agencies, community-based organizations, philanthropy, and the Legislature. The group includes organizations that previously appeared to be antagonistic toward the community colleges, such as the Texas Association of Business, which publicly criticized low completion rates.

The Texas Student Success Council identifies and attempts to resolve policy and funding challenges that are barriers to student success through recommendations at the institutional, state agency, and legislative levels. Specifically, the council aims to facilitate innovative policy that can build momentum for developing clear, structured pathways through college to help students complete a credential or transfer to a four-year institution more quickly.

The concept of a stakeholder board is not new, but the Texas Student Success Council operates on a set of principles that have made it especially effective. Indeed, in 2013, the Texas Legislature adopted most of the council's recommendations, including the implementation of outcomes-based funding, a redesign of developmental math education statewide, a competency-based education pilot program, and new transfer policies.

The council's key principles are:

- Engage policy influencers along the community college completion continuum, with special attention to those with influence at transition points.
- Focus on a small number of strategically selected goals for which there is already significant support across members to take advantage of momentum for specific policy change.
- Embrace a "big tent" philosophy, involving a diverse mix of individuals and organizations with different perspectives on solutions, some of whom have not typically been involved in community college policy deliberations.
- Develop clear and transparent protocols for communications, to manage the inherent tensions associated with diverse stakeholders. These include the regular and effective presentation of data and other evidence to hedge against anecdote and opinion.

By forming the Texas Student Success Council, Texas education leaders accomplished a rare feat—joining forces with business, philanthropic, and nonprofit organizations, sectors whose agendas have not always aligned—to improve the state's low community college completion rates. It is far easier to convince a legislature or state agencies to act on a consensus request from diverse stakeholders than on a controversial issue about which key constituents disagree, and the Texas Student Success Council has achieved impressive legislative results.⁹³

STATE-LEVEL STRUCTURE 4.

CREATE AND SUPPORT A STATEWIDE STUDENT SUCCESS CENTER.

Growing directly out of a decade of work on national reform efforts such as Achieving the Dream, the Developmental Education Initiative, Breaking Through and Completion by Design, Student Success Centers organize a state's community colleges in common action to accelerate their efforts to improve student persistence and completion.

Student Success Centers have been created in seven states to date, with support from the Kresge Foundation: Arkansas, California, Connecticut, Michigan, New Jersey, Ohio, and Texas. In those states, the evolution of Student Success Centers followed a common trajectory. As the student success movement took root and a critical mass of those states' community colleges joined a national reform effort, the colleges and their supporting associations came to believe that their hard work could be strengthened and amplified if there were some statewide, cross-college supports in place.

The colleges particularly noted that they could benefit from more coordination and collaboration across the colleges; alignment of the various, often competing, student success initiatives in the state; common data definitions that would provide comparable information; shared professional development venues; and the time and space to discuss strategy and execution. In essence, the centers were developed to "connect the dots" between the many initiatives underway in their states, thereby maximizing the impact on student success.

Colleges need a supporting infrastructure to drive their efforts. That infrastructure need not be large and bureaucratic. Indeed, Student Success Centers are lean and nimble, operating with an average of about two full-time staff. But they provide several elements that are critical to scaling student success reforms, including: staff with a singular focus on student success, a venue for collaboration, a priority on authentically engaging faculty. They are a critical partner operating at the nexus of state- and college-level reforms.

JFF is working to document the model, describe what works, and understand the impact of Student Success Centers.⁹⁴ Their successes thus far suggest that the idea has great potential for furthering the scale of student success reforms. And there is obvious interest in the concept: in fall 2013, after the Kresge Foundation and Jobs for the Future issued an RFP to fund and create new Student Success Centers, 24 states responded with a letter of interest detailing how a center could benefit their work on improving student outcomes in the community college.

STATE-LEVEL STRUCTURE 5.

JOIN CROSS-STATE LEARNING AND ACTION NETWORKS.

Colleges and states around the nation face similar challenges and state and campus leaders typically benefit from collaborating across state lines to share ideas and co-develop solutions. The creative process is heightened by states comparing and contrasting ideas, problems, and solutions from their local perspectives and conditions.

There are several relevant examples of interstate networks. The states in Jobs for the Future's Postsecondary State Policy Network, for example, work together to develop new ideas and solutions to common problems. Facilitated by JFF, the states regularly share information about challenges and breakthrough solutions, and analyze ideas through the lenses of their differing political and economic contexts. JFF hosts a series of face-to-face meetings, analyzes and disseminates state activities through publications and social media, reviews and distributes the best field research, and maintains communications through newsletters, webinars, and cross-state affinity groups and conversations conducted by JFF staff.

The Postsecondary State Policy Network comprises 13 states at the leading edge of improving student success in the community college. The network includes states with the largest and most diverse student populations in the country, including California, Texas and Florida. The Postsecondary State Policy Network provides access to state lawmakers, faculty, and college leaders in almost 50 percent of the community colleges in the nation. These colleges are educating more than 50 percent of the nation's students in public two-year colleges.

The states in the Postsecondary State Policy Network have worked together for a decade, maintaining—even in the face of staff transitions, changes in governance, and political and economic fluctuations—a community of committed states focused on improving student success. Over the past decade, the Network has driven some of the most watched and talked-about statewide changes to strengthen community college completion, including the redesign of developmental education across all the colleges in North Carolina and Virginia, the adoption of a 100 percent performance-based funding model in Ohio that rewards colleges for student success, and the adoption of meta-majors and a new multiple measures placement process in Massachusetts.

Questions for evaluating your state's or college's DesignForScale

Use these discussion questions to facilitate a meeting about your state's or college's approach to scale.

1. Have you discussed designing innovations for scale (rather than trying out small-scale interventions that you then seek to make larger)?
2. What do discussions about scaled implementation of reform look like in your state or college? Are they serious? Organized?
3. What innovations have you successfully scaled, and what made that scale happen? What was most important?
4. What infrastructure do you have in place to support systemic scale?
 - » Board or council with broad stakeholder engagement?
 - » Comprehensive data systems that facilitate tracking of outcomes?
 - » Incentives or accountability structures?
 - » Professional development?
 - » Regular convenings?
 - » Venues for rigorous collegewide discussions about change?
 - » Venues for intercollege discussions about change?
5. How effective is that infrastructure?
6. What have you stopped doing in order to reallocate resources to support practices that work?
7. Are there mechanisms in place to monitor the implementation and make improvements as needed?
8. What would help your state or college to be more rigorous, organized and systematic about scale?

CONCLUSION: BRINGING STATE LEADERSHIP TO THE COMPLETION MOVEMENT

The past decade of the college completion movement was the right work at the right time. But 10 years of experimentation and research have led to an inescapable conclusion: It is time for both states and community colleges to be more systematic, serious, and organized about designing visionary, integrated reforms to be implemented at scale to achieve meaningful and equitable results for our students. And there is growing impatience with the slow pace of change in student outcomes.

Launching improvement efforts at a scale needed to transform our campuses into pathways to success for low-income students, students of color, and underprepared students will not be easy, but it can and must be done. Researchers and organizations that advance efforts to promote college completion and transformative change have learned valuable lessons that can be put to work nationwide.

“Structured” or “guided” pathways initiatives can bring about significant transformation in the student experience, but they require significant changes in both state and college culture and a broadscale redesign of everything from student intake to graduation, professional development of faculty, and how students link to the labor market.

Effective implementation requires thoughtful policy that includes redesigning program requirements and developmental education, supporting strategic use of data, and creating new financial incentives. States should make every effort to analyze their existing policy conditions, develop policy collaboratively with campus leaders and faculty, and encourage authentic faculty engagement and collaboration within and across states.

State leaders must also continue to fight the uphill battle for state funding for community colleges. State appropriations for public postsecondary institutions dropped from 44 percent of total revenue in 1980 to 22 percent in 2009.⁹⁵ The most promising solutions, such as CUNY's ASAP program that boosts completion and students' success, require extra state support. If politicians believe their own words—that community colleges are the engine of economic development—then it is time for them to show their commitment through public investments.

Israel Mendoza, the former director of the Adult Basic Education Office with the Washington State Board for Community and Technical Colleges, is famous for his role in scaling the nationally renowned I-BEST model across the state of Washington. I-BEST is probably one of the best-known and effective student success reforms that has been scaled in a tangible way, and reflects much of Cynthia Coburn's definition: every college in the state uses I-BEST, it has included deep professional development that has significantly changed how instructors teach, faculty members across the state exhibit strong ownership of and pride in I-BEST, the state has paid particular attention to sustaining I-BEST by building legislative support and dedicating financial aid resources, and I-BEST has been evaluated and regularly improved upon. In short, Washington created structures that dramatically changed culture, and undergirded the scale of I-BEST.

As Mendoza describes it, "To really sustain [an initiative], I have to not just add it 'on top of'; I've got to start embedding it 'within' and changing the culture and beliefs."⁹⁶

If states and higher education don't get this right, they face loss of public faith in community colleges as open-access institutions. Worse still, the nation risks denying opportunity to millions of hardworking Americans who come to our community colleges declaring they want to obtain a credential that leads to a dynamic career and family-sustaining wages. It is not an overstatement to say that structured pathways are the most important on-ramp to financial stability and social mobility we have for half of all students after high school, and the vast majority of the nation's unskilled workers.

Changing culture is hard work, and it cannot be accomplished by tinkering at the margins. It requires strong state leadership focused on transformation. Leaders can show their commitment through consistently emphasizing the importance of student success, designing a transformative agenda, shifting resources, and demonstrating a willingness to make hard decisions. This type of work is never done—leaders must say and show that they are committed for the long haul.

APPENDIX

COMPLETION BY DESIGN NATIONAL ASSISTANCE TEAM (NAT)⁹⁷

- > **Jill Wohlford:** Jill serves as the learning and management intermediary between the colleges, the Bill & Melinda Gates Foundation, and the technical assistance providers. Jill promotes alignment across stakeholders, activities and strategies, while identifying broad themes and lessons to communicate to the field.
- > **National Center for Inquiry & Improvement (NCII):** Led by Rob Johnstone, the NCII brings expertise in the role of inquiry and use of data at 2-year and 4-year colleges, along with expertise in implementation strategy and on-the-ground consultative assistance.
- > **Public Agenda (PA):** Public Agenda helps to build the colleges' capacity in facilitation, engagement, meeting design, qualitative research, communications, and related issues.
- > **Jobs for the Future (JFF):** JFF provides technical assistance to build capacity within the CBD states to advance a completion-focused policy agenda.
- > **JBL Associates (JBLA):** JBLA maintains the cross-cadre student outcomes data set, collects data from colleges twice a year, and provides reports for the colleges, partners, and the Bill & Melinda Gates Foundation on Key Performance Indicators (KPIs).

- > **Community College Research Center (CCRC):** CCRC leads cross-college analyses of the KPIs, provides specialized research projects to help colleges improve implementation at the colleges' requests and conducts independent analysis of CBD data to develop research and tools to help other colleges improve completion.
- > **MDRC:** MDRC works to build an account of Completion by Design's Institutional Change, identifying practical information for the field to consider when aspiring to CBD-like transformation, by drawing lessons from the changes that take place at a subset of participating colleges.
- > **Achieving the Dream (ATD):** Completion by Design will benefit from key aspects of ATD's organizational capacity, taking advantage of opportunities to align and leverage the resources of these two major efforts in the field. Most importantly, ATD staff will support website development and other key initiative-level communications needs for CBD. ATD brings a broad network of practitioners and other experts—many of whom are also participants in CBD.

ENDNOTES

¹ The terms “structured pathways” and “guided pathways” are often used interchangeably. Though the interventions colleges are undertaking are very similar, there are slight differences in meaning. “Guided” is sometimes used to emphasize that students are receiving more guidance, which some prefer to the notion of making education more structured. Jenkins, Davis. *Redesigning Community Colleges for Student Success: Overview of the Guided Pathways Approach*. New York: Community College Research Center, Teachers College, Columbia University, 2014.

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