CCRC BRIEF

Redesigning Community Colleges for Completion: Lessons from Research on High-Performance Organizations

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Community colleges have been designed primarily for low-cost access. Thus, compared to more selective institutions, it is not surprising that their rates of completion are relatively low. Now, however, given the growing importance of postsecondary education—both for individuals seeking family-wage jobs and for a national economy that increasingly requires a more highly skilled workforce—community colleges are being called on to expand their focus beyond enrolling large numbers of students in college courses to ensuring that more students complete college programs.

Community colleges will not be able to count on increased funding to help them meet ambitious national college attainment goals. Recent state budget cuts and skyrocketing enrollments have reduced per-student funding for colleges across the country. Instead, community colleges will have to improve productivity—that is, they will need to graduate more students with the same or even less funding.

Community college efforts to increase completion rates typically involve small programs or pilots that serve relatively few students and often rely on temporary outside funding. However, small-scale innovations, such as learning communities, supplemental instruction, and mentoring programs—particularly if implemented in isolation from larger organizational reforms—will not be sufficient to improve rates of student completion on a large scale. To achieve substantial gains in productivity, community colleges will have to make more fundamental, systemic changes in the way they operate. This Brief summarizes a longer review of the research on organizational improvement and offers guidance on steps community college leaders can take to engage faculty and staff in redesigning their institutions to increase student completion while preserving their "open door" mission.

Practices of High-Performance Organizations

Because the literature on organizational effectiveness in higher education is limited, this review also included relevant studies from K-12 schools and organizations outside of education. Research from these other two sectors consistently identifies eight sets of practices that are characteristic of highly effective organizations. Higher education studies identify some of these eight practices in effective undergraduate institutions but place less emphasis on others. The following are practices consistently found in organizations that achieve superior outcomes and improve their performance over time. Research in all three sectors confirms that these practices have the greatest effect on performance when they are implemented in concert with one another and are well aligned to achieve organizational goals.

Leadership

All three bodies of research literature stress the importance of strong, inclusive leaders who are committed to improving outcomes in accordance with the organization's mission and goals. In a synthesis of the results of more than 10 years of research on Chicago public schools, Bryk et al. (2010) found leadership to be a key feature of schools that were able to improve student outcomes. Effective leadership is also the first principle of the Baldrige National Quality Program, a part of the U.S. Department of Commerce that each year gives awards to organizations able to meet rigorous standards of practice based on the principles of Total Quality Management (Baldrige National Quality Program, 2009b). According to the Baldrige National Quality Program (2009a), effective leaders "communicate with their workforce to develop leadership within the organization and promote organizational learning, ethical behavior and high performance" (p. 7).

Focus on the Customer

Whether it is in terms of a college with a "learner-centered campus" (Kuh et al., 2005), a school with a "student-centered learning climate" (Bryk et al., 2010), or a corporation with a "customer focus" (Baldrige National Quality Program, 2009b), all three literatures emphasize the importance of focusing energy and resources on providing high-quality service to the customer.

Functional Alignment

All three research literatures point to the value of aligning functions to achieve organizational goals. Models of organizational effectiveness that emerge from research on private sector firms stress the importance for firm performance of managing the organization's "core competencies" in a coordinated fashion (Baldrige National Quality Program, 2009b; Kaynak, 2003). Studies

of effective undergraduate institutions emphasize the importance of coordinating instruction and student support services (Jenkins, 2007; Kuh et al., 2005; Muraskin & Lee, 2004; Southern Regional Education Board, 2010). The conception of alignment that emerges from the K-12 research—sometimes referred to as "instructional program coherence"—is even broader, encompassing instruction, academic supports, assessment, classroom management, and professional development. In a study of elementary schools in Chicago, Newmann et al. (2001) found that schools with higher levels of instructional coherence showed test score gains 12–13% higher in reading and mathematics over three years than did schools with lower levels of instructional coherence. Bryk et al. (2010) found that schools with strong curriculum alignment were four times more likely to improve in math and reading. Their results indicate that school improvement frameworks that promote instructional program coherence are more effective than multiple unconnected interventions.

Process Improvement

Ongoing efforts to improve core organizational processes are another feature of effective organizations identified by research in all three sectors. The Baldrige model encourages organizations to analyze organizational processes to ensure that the quality of programs and services improves over time (Baldrige National Quality Program, 2009b). In education settings, the core processes are those encompassed by the "instructional program coherence" concept mentioned above. Interestingly, the emphasis on instructional innovation is not as great in studies of effective undergraduate institutions as it is in research on high-performing K-12 schools.

Use of Measurement

The use of performance measurement is identified in some studies of effective undergraduate institutions, but it does not feature as prominently in studies of undergraduate institutions as it does in research in the other two sectors. For example, in the Comprehensive School Reform (CSR) model from K-12 education, evidence-based decision making is an overriding principle (Boreman et al., 2003). Measurable goals, assessment, evaluation, and use of evidence are mentioned explicitly in five of the 11 components of the CSR model. The use of measurement to inform process improvement is also a central feature of high-performance organizations outside of education (Kaynak, 2003).

Employee Involvement and Professional Development

All three research literatures highlight the importance of involving employees in reform efforts. Studies of organizational improvement efforts in K-12 schools and organizations outside of education emphasize the need for employees to understand the goals of major organizational reforms and believe in the principles that drive them. Distributed leadership is a central principle of the Comprehensive School Reform model, in which administrators, teachers, and staff are expected to share responsibility for improving student outcomes. Bryk et al. (2010) found that schools where teachers were highly committed and inclined to embrace innovation were five times more likely to improve in reading and four times more likely to improve in math than schools with low levels of teacher involvement.

Preparing employees to play active roles in organizational improvement requires training and professional development. Studies suggest that high-performance work systems benefit organizational performance by helping employees strengthen their knowledge, skills, and abilities and by involving and empowering them to use their KSAs for the benefit of the organization (Combs et al., 2006). Studies of reforms that have been implemented at scale in K-12 education emphasize the importance of transferring authority and knowledge of reforms from external actors to teachers, schools, and districts (Coburn, 2003). This is essential to sustaining reforms in the face of constantly changing priorities, turnover among reform leaders, and the likelihood that initial funding will disappear over time. The K-12 research points to practices that can help to bring about this transfer of knowledge and authority. These include structures and mechanisms for ongoing reform-related learning by teachers and administrators (such as teacher study groups), cultivation of deep, reform-centered knowledge among school and district leaders, and use of reform-centered ideas or structures in school or district decision making.

External Linkages

While involvement of both parents and outside communities is a key feature of the models of effective schools that emerge from K-12 research, the literature on effective undergraduate institutions mentions neither. Perhaps more surprising is that studies of effective undergraduate institutions do not mention relationships with K-12 schools—or, in the case of community colleges, with four-year institutions and employers. Research on private sector organizations indicates that firms that strategically manage their relationships with supplier and customer firms perform better on a variety of measures than firms that are not strategic in managing these relationships (Carr & Pearson, 1999; Kaynak, 2003; Sezhiyan & Nambirajan, 2010).

Complementary Effects of High-Performance Practices

Overall, the research on organizational effectiveness strongly suggests that to achieve large improvements in student outcomes, community colleges should implement the practices associated with high-performance organizations in a concerted way. Colleges will need to rethink how they manage programs and services, following the eight practices of high-performance organizations described above. Small programmatic innovations will not suffice. Indeed, the research suggests that even implementing particular programmatic innovations at scale requires changes in a range of related institutional policies. For example, offering learning communities to large numbers of incoming students would require colleges to change how they schedule courses, which has implications

for advising, instructor training and course preparation, and other issues related to institutional policy.

Research indicates that substantial improvements in organizational performance result from implementation of complementary sets of organizational practices. To improve student outcomes, innovations in policy and practice must be implemented together and aligned to support the goals of increasing student learning and completion. Furthermore, colleges should continually evaluate data on student outcomes and adjust their policies and practices to bring about further improvements.

Steps for Redesigning Community Colleges for Completion

Research on community colleges suggests that these institutions are often weak in several areas of high-performance practice, including functional alignment, use of data for improvement, and external linkages. Community colleges also often fail to engage faculty and staff centrally in institutional improvement efforts and provide training and professional development strategically to support reforms. This is the case even though studies in and outside of education indicate that winning the hearts and minds of employees and actively involving them in changing norms of practice are critical to the success of efforts to implement organizational innovations at scale.

Community colleges face substantial barriers to organizational reform, including their heavy reliance on part-time faculty and paraprofessional staff, collective bargaining in many colleges and shared governance in most, and limited incentives for individuals to improve their performance. Despite these impediments, the research literature offers guidance on steps community college reformers can take to engage faculty and staff in redesigning these linchpin institutions to increase student completion while maintaining broad access.

Research on effective organizations emphasizes the importance of strong leadership for organizational improvement. Given the decentralized nature of authority in community colleges, it follows that leadership for reform needs to be cultivated not just among college presidents and other top administrators but also among deans and department chairs, faculty leaders, and student services program directors. Creating deep, sustainable reforms in organizational practice requires changing beliefs and norms of practice. Studies suggest that this is best accomplished by involving employees—in the case of community colleges, faculty, staff, and administrators—as central actors in the organizational redesign process. The following recommendations suggest concrete steps, supported by research on organizational effectiveness, that colleges can take to accomplish this.

▶ **Empower faculty to establish common learning outcomes and assessments for academic programs.**

Studies of effective K-12 schools demonstrate the importance of coherent academic programs in which curricula, teaching methods, assessment, and academic support are well aligned. Given this evidence—and evidence from the literature generally about the importance

to organizational performance of functional alignment— community colleges should establish learning outcomes for core courses, with associated assessments, that are clearly tied to learning outcomes for certificate and degree programs. Faculty in baccalaureate transfer programs should partner with university colleagues to ensure that the learning outcomes for their programs align with bachelor's degree program requirements. Faculty in career–technical programs should go through a similar process with employers to ensure that their programs meet labor force needs in the relevant fields.

Faculty-driven development of learning outcomes would help to foster coherence in community college academic programs by ensuring consistency and alignment of learning outcomes within and across courses in a particular academic program. Accompanied by improvements in program information provided to students, it could also clarify to students what they need to do to succeed in a course and how success in particular courses supports progress toward program completion. Making learning outcomes more transparent would also help ensure that adjunct instructors and full-time faculty are teaching to the same learning goals. To the extent that learning outcome standards are accompanied by recommended strategies for teaching related topics, this could also help to disseminate effective teaching practices. Finally, better defining learning outcomes for programs and courses would help to clarify standards for college readiness. Such standards could in turn be used by colleges to develop more robust systems of placement testing.

▶ **Rethink college policies to help students better negotiate the pathways they take through the institution.**

Colleges should create a cross-functional committee or task force of faculty, student services staff, and administrators to map out the experience of students from the time they first make contact with the college, examine the interactions between students and college programs and services at each point along this "pathway," and assess the extent to which college policies and practices help or hinder students from making progress toward successful completion. As part of this process, the student success committee should track cohorts of entering first-time college students longitudinally to locate places along the path where students tend to struggle and to identify "momentum indicators," such as entering a coherent program of study within one year and passing college-level math within two years, that are associated with an increased likelihood of completing a credential (Leinbach & Jenkins, 2008; Moore, Shulock, & Offenstein, 2009). Colleges should then examine their policies to determine whether or not they promote student progression at each stage of the pathway to completion and implement policy changes that have the potential to improve student outcomes on a substantial scale.

▶ **Engage student service staff in developing protocols of recommended practice.**

Colleges should also convene cross-functional teams of student services staff to develop, in

consultation with faculty, protocols of recommended practice for assisting students at each stage of their experience with the college, including their initial application to the college, first enrollment in college courses, entry into a program of study, program completion, and career placement. Protocols might include sets of supports that are offered to particular groups of students. For example, those entering college soon after high school might benefit from a set of services incorporating career exploration and planning, while older students who have been out of school for a long time might benefit from a math refresher. Codifying effective practices in this way could improve the consistency and quality of support services and their functional alignment with academic programs. It would also facilitate evaluation of the effectiveness of student service innovations.
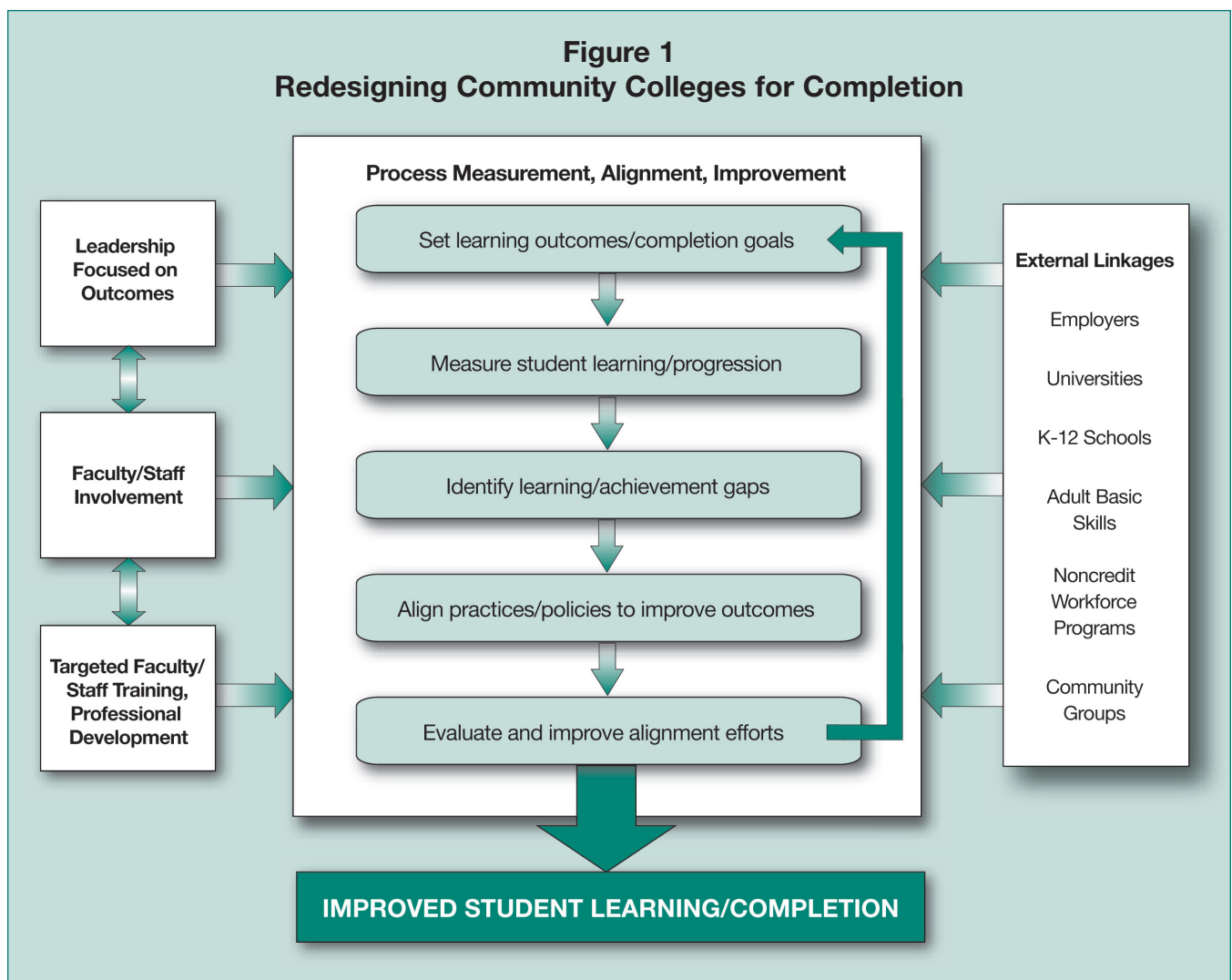
▶ **Partner with high schools (and adult basic skills programs) to align curricula and ensure students are motivated and prepared to succeed in college.**

Community college faculty and student services staff should work to ensure that high school and college offerings are aligned. A key step is for college and high school faculty to compare their respective curricula in core subjects. Colleges should also partner with high schools to offer college readiness activities for students early on in their high school experience. Beneficial services might include providing orientations to college, offering college placement tests so that students can find out if they should seek remediation before they get to college, and providing assistance with college and financial aid applications. Colleges should build similar relationships with adult basic education providers to increase the rate at which students in these programs advance to and succeed in college-level programs of study.

A Continuous Improvement Process

These recommended actions for colleges reflect a continuous improvement process that is at the heart of an overall model of organizational redesign based on the eight practices of high-performance organizations identified above. This model is illustrated in Figure 1. The continuous improvement process consists of five steps, shown in the figure in the box labeled "Process Measurement, Alignment, Improvement."

Figure 1
Redesigning Community Colleges for Completion

Process Measurement, Alignment, Improvement

- Leadership Focused on Outcomes
- Faculty/Staff Involvement
- Targeted Faculty/Staff Training, Professional Development

Set learning outcomes/completion goals
↓
Measure student learning/progression
↓
Identify learning/achievement gaps
↓
Align practices/policies to improve outcomes
↓
Evaluate and improve alignment efforts

External Linkages
- Employers
- Universities
- K-12 Schools
- Adult Basic Skills
- Noncredit Workforce Programs
- Community Groups

IMPROVED STUDENT LEARNING/COMPLETION

1. Set outcome goals.

Colleges should set goals for increased student achievement, in terms of student mastery of academic program learning outcomes and rates of completion by students generally and by particular groups of students (for example, younger students who enter needing remediation). Goals should also include reducing the number of students from local high schools who enter the college needing remediation.

2. Measure student learning and progression.

Faculty should measure progress toward student mastery of program learning outcomes using outcomes standards and common assessments for core courses in each program. Faculty and staff should track the rates at which students attain key milestones (such as entering a coherent program of study or earning a substantial number of credits—12, then 18, then 30, etc.—on their way to a credential). Colleges should pay attention to how long it takes for students to attain particular milestones in order to measure how fast students are progressing. Colleges should track the number of entering students from feeder high schools (and adult basic skills programs) who require remediation and share this information with the high schools (and adult basic education providers), partnering with them to figure out how to reduce the number of underprepared students.

3. Identify gaps in learning and achievement.

Colleges should use the data collected in step 2 to identify gaps in student learning and rates of progression. What course and program learning outcomes do students frequently have trouble mastering? At which points are students most likely to drop out of college? Are there gaps in rates of student progression and attainment among particular student groups by demographic factors, such as age, gender, or race/ethnicity, or by their level of college readiness when they first enroll (as measured by placement test scores and referrals)?

4. Align policies and practices to improve outcomes.

Based on further analysis and diagnosis of the gaps identified in step 3, colleges should review and align their practices and policies to improve student learning and progression toward degrees and close achievement gaps among student groups. This might involve faculty making changes to curricula or instructional methods to strengthen teaching in particular topics on which students consistently perform poorly on common assessments. It might also mean changes in policies and practices to benefit large numbers of students, such as limiting late enrollment; requiring first-time college students to take college-level success courses; or consolidating credential programs to a manageable set of pathways, each with clearly defined steps to completion, further education, and, where applicable, employment. While colleges may want to support exploratory or pilot efforts to increase student success, ultimately colleges should seek to make changes that benefit students throughout the institution. Unless innovations in policy and practice can feasibly be implemented at scale, they are unlikely to be sustained.

5. Evaluate the effects of alignment efforts and make further improvements.

Colleges should evaluate the effects of efforts to improve outcomes. Smaller-scale interventions should be evaluated by comparing outcomes for students "touched by" a given intervention with outcomes for similar students who were not. For practices and policies that affect many students, colleges might need to compare outcomes before and after the change was implemented. Just as important as evaluating changes in practice and policy is using the results to make further improvements.

As shown in Figure 1, this five-step process is designed to be iterative, so that the organizational learning it produces continues over time. Figure 1 also shows that other practices of high-performance organizations are important for making the improvement process work. Leadership focused on improving student outcomes is critical not only to initiating the process but also to sustaining it. Just as important is broad involvement of faculty and staff in the improvement process and providing them with training and professional development strategically targeted to help build the skills and knowledge needed to implement improvements. Finally, external linkages are also key to redesigning colleges—with employers and universities to set academic program learning goals and with K-12 schools, adult basic education programs, and noncredit college and community-based training programs to strengthen the "pipeline" of students entering college-level programs.

To ensure that this improvement process is continuous, it should become a chief responsibility and priority of the academic and student services divisions and at least one college-wide standing committee. Some colleges may need to reorganize their committee structure to sustain the focus on improving student outcomes.

Incentives for Colleges to Change

What will motivate community colleges and their faculties and staffs to undertake the systemic reforms recommended in the previous section? Because some stakeholders are likely to resist reforms and defend the status quo, the process of promoting reform in community colleges may be lengthy and messy, requiring persistent pressure for change from the outside as well as sustained support for organizational improvement from within.

State policies designed to provide incentives for colleges to implement improvements through measures such as performance funding have generally fallen short of their goals. Recent research on performance funding suggests that rather than create small innovation funds that will likely disappear when state revenues decline, policymakers should build incentives for improvement into base budget funding.

The dismal fiscal outlook in most states, combined with sharp increases in enrollments at many colleges, raises questions about where the resources needed to motivate and support community college reforms will come from. The federal government, states, and private foundations have invested large sums to support organizational innovation at the K-12 level. The Obama administration succeeded in encouraging Congress to provide billions for its Race to the Top initiative, which

includes an Investing in Innovation fund for states and schools, but failed to convince Congress to support its full request for the American Graduation Initiative, which would have provided billions for innovation in community colleges aimed at improving college completion rates. This increases the importance of the investments in reform by private foundations, including the Bill & Melinda Gates Foundation and Lumina Foundation for Education.

Based on this review of the literature, foundations, state and federal policymakers, and higher education leaders seeking to promote improvements in postsecondary attainment by community college students should make investments based on a theory of change that encourages colleges to adopt the practices highlighted as effective by research on high-performance organizations. While the research literature provides considerable guidance about what those practices are, reformers will be charting new territory in terms of how to motivate colleges to adopt them. Given their strong historical commitment to expanding educational opportunity, there is every reason to believe that community college educators will rise to the challenge of increasing student completion if they are empowered and supported to accomplish this goal.

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