Drawing on previous chapters in the volume, this chapter identifies crosscutting themes and lessons for those engaged in the development and study of academic pathways. Particular attention is paid to the ways that pathways can increase opportunities for traditionally underserved students.

Academic Pathways and Increased Opportunities for Underserved Students: Crosscutting Themes and Lessons Learned

Elisabeth A. Barnett, Debra D. Bragg

This volume presents a wide array of models and perspectives on academic pathways that create opportunities for students to enter and succeed in progressively higher levels of education. Academic pathways—defined as boundary-spanning curricula, instructional approaches, and organizational structures—are increasingly prevalent in the United States, the result of heightened concerns about the progression of all students through the existing P–16 (preschool through sixteenth grade) system. Some established, some emerging, academic pathways are creating increasingly varied and propitious routes to and through college, potentially allowing students who may not fit the profile of a traditional college-goer to flourish in higher education. Drawing on findings and examples from previous chapters in the volume, this chapter identifies crosscutting themes and perspectives and highlights lessons for those involved in developing or studying academic pathways to and from the community college.

Multiple Pathways and Opportunities

Creating multiple academic pathways to higher education and careers can play a key role in opening doors to postsecondary education for traditionally underserved students. Some students respond well to the concrete
learning and job-related rewards associated with career and technical education (see Chapter Seven), whereas others are attracted to small, personalized educational opportunities, such as the middle and early college high schools discussed in Chapter Five. Students who are bored in high school may become engaged in their education through opportunities to participate in dual enrollment or by attending school on a college campus, whereas others may flourish by engaging in experiential learning that yields college credit, such as career-related internships and externships. Furthermore, distance learning can broaden the range of courses available to students, especially those living in remote rural areas, and can become an academic pathway in and of itself, as discussed in Chapter One.

As well, multiple entry and exit points to the educational pipeline offer students more options and greater flexibility than the traditional college preparatory curriculum. As Chapter Two illustrates, underserved students often are not exposed to a college preparatory pathway at the eighth- or ninth-grade level, which reduces their ability to take advantage of accelerated learning opportunities such as AP and dual credit. Programs such as Tech Prep and those that bridge the GED to a college curriculum provide a greater number of students—including those who may not have considered college to be an option—with multiple points of entry to higher education.

Lesson: Educators and policymakers should establish systems that provide multiple pathways to college and careers in order to meet students’ diverse needs and interests.

Overlapping and Integrated Academic Pathways

Over the years, many academic pathways have achieved success by adopting elements from earlier or similar programs. For example, the early college high school evolved from middle college high schools established in the 1970s. Other pathways have integrated several previously disparate elements. College Tech Prep, for example, integrates CTE with the traditional college preparatory pathway. These and other academic pathways are built on dual credit programs, or use dual credit policies and mechanisms in order to accelerate student progress through the education system. As well, distance education programs are often integrated with other academic pathways, such as Tech Prep, AP, and International Baccalaureate (IB), as discussed in Chapter One.

High Schools That Work and the College and Career Transitions Initiative (CCTI; see Chapters Seven, Eight, and Nine) also integrate a number of academic pathways. Besides extensive use of dual credit, they incorporate a Tech Prep design that includes a college preparatory curriculum. In addition, several of their local sites have developed bridge programs that are available to students in the summer months. Similarly, some early college high schools incorporate GED options that bridge to college, Tech Prep curricula, or AP courses. By integrating elements of many different academic pathways to college, educators strengthen existing programs and build on the successes of others.
Lesson: Consider developing new pathways that build on existing ones, and that can take advantage of established agreements, local knowledge, and practical experience with the creation of academic pathways to college.

Spanning Multiple Levels of the P–16 System

Some academic pathways, such as Advanced Placement (AP) and dual credit, connect high school to two- or four-year colleges, allowing high school students to begin college-level coursework when they demonstrate competency, and aligning the high school and college curriculum, often in career and technical education (CTE) areas. Recently, academic pathways have begun to link the programs and credentials of high schools, community colleges, and four-year institutions; these frequently involve both curricular and organizational restructuring. For example, the community college baccalaureate, discussed in detail in Chapter Six, provides community college students with access to bachelor’s degrees in applied programs that four-year institutions frequently do not offer. Similarly, formal articulation agreements that span educational systems, such as those discussed in Chapters Eight and Nine, allow students to begin a program of study in high school and progress seamlessly through three or more institutions to earn a bachelor’s or other advanced degree. To facilitate transition, some programs simultaneously admit students into two-year and four-year colleges.

Underserved students are likely to benefit from these pathways for several reasons. First, they can lower college costs considerably, especially in models that allow students to earn dual credit while still in high school (see Chapter Four). Through extra guidance and mentorship from instructors, counselors, and other academic personnel, these pathways may also help students develop a greater commitment to attaining a postsecondary credential. Often, academic pathways provide underserved students, who may have little experience with higher education, with greater confidence in their ability to navigate a complex, multilayered educational system (see Chapter Five for examples of how students benefit from participating in a boundary-spanning academic pathway).

Lesson: Where possible and appropriate, pathways that span multiple levels of the education system should be established. They provide opportunities for students to advance their education by providing clear and well-marked routes to higher levels of educational attainment.

The Lead Role of Career and Technical Education (CTE)

As discussed in Chapter Seven, several of the earliest academic pathways involved CTE, and some of its most important features have been widely adopted. Academic pathways that integrate CTE often implement new
curricular and instructional approaches that motivate students to stay in high school and matriculate to college. For example, the integrated and contextual learning approaches emphasized in High Schools That Work and Project Lead the Way, both described in Chapter Seven, emphasize instructional practices that make learning more relevant and engaging for students. Educators developing and supporting other academic pathways can learn much from these and other CTE programs.

In addition, academic pathways that integrate CTE tend to clearly emphasize a goal linked to employment, which is extremely important to many students. For example, students who engage in Tech Prep or the CCTI program (see Chapters Eight and Nine) know that they are obtaining the competencies and credentials that will help them prepare for their career. Compared to the sometimes harder to visualize goals associated with general education, academic pathways that incorporate CTE offer tangible educational and labor market rewards that are attractive to students and can motivate them to persist in their education.

Lesson: Career and technical education programs have important experiences and useful curricula, instructional methods, and materials to share with those engaged in the development of new academic pathways. These approaches may be especially important in meeting the needs of traditionally underserved students.

Beyond the Curriculum: The Role of Student Support

A number of chapters in this volume have acknowledged that although curricular change is important, extensive student support systems are needed if academic pathways are to be effective mechanisms for providing opportunities for underserved students to enter and succeed in college. In some cases, special efforts are needed to ensure that students learn about different pathways and view them as viable options. For example, as several of the authors in this volume point out, many high school students do not know where the nearest college campus is located and do not understand what will be required of them in college courses. Opportunities that allow students to spend time on a campus, get to know faculty and staff, explore the facilities, and engage in hands-on activities are extremely valuable. These opportunities should be strategically structured at different grade levels and stages of the educational process.

Furthermore, as discussed in Chapter Two, the climate of the school, as well as teacher attitudes and assumptions about student ability, can greatly affect student success in an academic pathway. In some cases, teacher dispositions can be influenced through professional development seminars and involvement in faculty-driven projects, such as those discussed in Chapter Three. When executed successfully, professional development can bring teachers together to examine their own practices and develop new ways of thinking about their teaching philosophies and practices to improve student outcomes. Educational structures such as block scheduling, inte-
grated curricula, and opportunities for extra help can also help improve student experiences in academic pathways.

**Lesson:** Pathways can play an important role in helping traditionally underserved students enter and succeed in college. However, thoughtfully designed supports are needed to ensure that students fully benefit from these opportunities.

### The Signaling Role of Academic Pathways

In Chapter Three, Andrea Bueschel and Andrea Venezia point out the perplexing paradox of open access institutions: they send signals that encourage students to matriculate but at the same time convey that preparation for college is not critical. Many students who enter community colleges have absorbed this mixed message, and as a result are unprepared for the demands of college-level instruction and must take remedial and developmental classes before they can progress to the college-level curriculum. Academic pathways help communicate a college’s academic expectations in concrete ways.

**Lesson:** The signaling role of academic pathways should not be underestimated. Schools and colleges should explore ways to use pathways to help students understand what is involved in preparing for college, and what will be expected of them upon matriculation.

### Student Assessments and Academic Pathways

The movement toward competency-based, and more recently, outcomes-based measures of college readiness has gained momentum over the past decade or two, encouraging institutions to assess whether and how students are progressing along an academic pathway. Although fraught with controversy, standardized assessments are increasingly used to determine whether students have achieved success at each level and whether they are ready to move to the next. This information may also be used by high schools to make sure that students are adequately prepared for college before they enroll, and to allow schools to adjust their curricula, instruction, and student supports accordingly.

**Lesson:** Assessments associated with academic pathways provide important information about whether schools are adequately preparing students for college-level course work. Furthermore, assessments can help schools and colleges target extra assistance to students in pathways who are not meeting key benchmarks.

### Pathways and System Alignment

High school and community college curricula become misaligned for many reasons. Traditionally, K–12 and higher education systems have communicated very little with one another. Furthermore, high school teachers are
generally expected to help students meet the standards required for high school graduation, rather than those necessary to enter and succeed in college. Similarly, colleges are not always proactive in conveying their standards and expectations to entering students—or to high school counselors, teachers, and administrators. Additional complications are introduced by the lack of communication between different postsecondary institutions in states (or across the nation), which results in a lack of consensus on the meaning of “college readiness.” Finally, both high school and college faculty work in relative isolation, often with few opportunities to examine how their syllabi and instructional practices align with those used by others.

Academic pathways can play a role in addressing these and other alignment issues. At the local level, establishing academic pathways leads to dialogues among those at the secondary and postsecondary levels that produce greater awareness of mismatched curricula and instructional practices. Awareness alone can be helpful, but as several chapters in this volume have pointed out, explicit efforts must also be made to increase alignment. This generally involves working collaboratively with professionals at other levels of the education system to analyze and improve curricula, instruction, and assessment policies and practices.

Lesson: The creation of academic pathways can lead to productive discussions about overall system alignment. At the local level, cross-institutional faculty discussions about overlaps and gaps in the curriculum can be helpful. State-level discussions should emphasize policy change and statewide alignment efforts.

Changing Power Dynamics in the P–16 System

As academic pathways expand and develop, they sometimes bring to light competing interests—and issues of power and control—in the educational system. In particular, the postsecondary system has historically been stratified, with research universities and private colleges at the top of the hierarchy and community colleges near the bottom. The ability of academic pathways to reach their full potential often depends on the willingness of those at higher levels of the system to cooperate with those at lower levels. For example, AP, IB, and dual enrollment credits have little value unless they are accepted at the colleges and universities where students matriculate. Similarly, faculty have traditionally had a high level of control over course content, especially at the postsecondary level. Although this may be necessary to create an atmosphere of learning and investigation that is free of external constraints and pressures, college faculty may have few incentives to work with high school teachers to discuss ways to improve student instruction.

Recently, some of the traditional relationships between institutions and people in the secondary and postsecondary sectors have changed, partially in response to the need to improve student progress along academic path-
ways. Academic pathways have stimulated a need to rethink existing practices related to local curricular priorities and the awarding of credits. In many cases, secondary and postsecondary faculty and staff have come together to discuss ways to create more seamless transitions for students (see Chapter Three). In others, college leaders are looking at ways to improve transfer of credit. In several cases, the state has stepped in, using accountability and funding mechanisms to require agreements on policies and procedures that affect admissions, prerequisites, transfer of credits, and student support (see Chapters Four and Six). These developments are often creating changes in traditional patterns of interaction that extend well beyond specific academic pathways.

Lesson: Academic pathways are more likely to function well for students, especially underserved students, when institutions negotiate clear agreements on key transition points in the educational system. When local institutions are unable to reach such agreements, state policies may be needed to create incentives for their establishment.

Conclusion

Academic pathways are creating smoother transitions across educational levels for a range of students, including those traditionally underserved in higher education. We expect that as these pathways evolve, they will continue to play an important role in increasing access to higher education. In addition, they are contributing to changes in the configuration of the American education system, and to the ways in which students are taught and credentialed at all levels. Collaboration among education sectors will continue to spur important discussions about policy and practice, and should result in new and better ways to prepare students for the changing world.

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