

Chapter 8

POSTSECONDARY LINKAGES

You feel a push to excel in everything that you do. And you're more encouraged to ... continue education after high school... And you know that there's always going to be someone back here at high school who you can go to, your teachers, because you become like a family. We're all connected.

Student, Health Academy

INTRODUCTION

Preparing high school students for life is the single issue that lies at the crux of every high school improvement effort. The multiple pathways approach holds real promise for improving students' capacity to take full advantage of educational and training options after graduating from high school. In fact, readiness for postsecondary education and high-wage careers is the ultimate goal of multiple pathways programs. Postsecondary education as discussed here includes any form of education or training beyond high school provided by community colleges, colleges, or universities; vocational, technical or professional schools; and military training. Multiple pathways programs seek to improve postsecondary readiness by engaging and motivating all students to maximize their educational and career potential.

Much of the efforts around multiple pathways to date have focused on K-12 education. To prepare students for postsecondary success, collaboration between secondary and postsecondary institutions is essential. Policies and practices of secondary and postsecondary systems often fail to work in unison, sending students conflicting messages about such issues as the relationship between high school graduation standards and expectations for entry-level, credit-bearing college courses. For example, eleventh and twelfth grade assessments often require different knowledge and skills than do postsecondary entry and placement exams, and faculty expectations differ between high school exit and college entrance (Venezia, Kirst, & Antonio, 2003; Venezia, 2008). California has a wide disconnect between the California High School Exit Examination and postsecondary entrance-level expectations for college-level work. Much of the research conducted on the expectation gaps between high school and postsecondary education has focused on traditional academic disciplines. This chapter examines coordination and articulation between high schools and postsecondary institutions given the work currently under way in California to develop and implement multiple pathways.

EFFECTIVE PRACTICE

Multiple pathways programs seek to improve student readiness for all postsecondary education opportunities. This effort includes, at a minimum, providing all students with access to and encouragement to participate in a rigorous, integrated curriculum, work-based learning opportunities, and support systems that will prepare students for success in community colleges, four-year institutions, or other educational and training programs — without remediation. David Conley has written extensively about preparing students for postsecondary education; the following four principles for such preparation are drawn from his research (Conley, 2008):

Principle 1: Create and Maintain a Postsecondary Culture. High schools with a postsecondary culture project the belief that all students can succeed in some form of postsecondary educational opportunities. For example, many schools that Conley studied automatically enrolled students in a program of study designed to prepare them for postsecondary education, posted postsecondary acceptance letters prominently, held award ceremonies focused on students' accomplishments, and recognized students who had been accepted to postsecondary education.

Principle 2: Align the Core Academic Program with Postsecondary Readiness Standards. Schools design their curriculum to prepare students for postsecondary readiness and advanced placement courses, aligning course expectations, assignments, goals, and activities vertically across grades 9-12, using a set of readiness standards as the reference point.

Principle 3: Teach Key Self-Management Skills. Schools design strategies to help students improve their study skills; collect, organize, and retain factual information; take better notes; manage their time more effectively; work in teams; and reflect on the quality of their work and self-assess their performance.

Principle 4: Prepare Students for the Complexity of Applying to Postsecondary Education. Schools provide postsecondary information to first-generation students repeatedly and systematically during all four years of high school. Some schools require all students to take readiness tests, and advisors help students interpret and use the results to improve their preparation for postsecondary opportunities. Many schools provide students and parents with information about financial aid.¹

High school preparation programs should offer a wide range of work-based learning opportunities and career and technical courses, as well as academic courses, to provide all students with the skills they need to pursue postsecondary options. Preparation programs should inform students about certificate, associate, and baccalaureate programs, and the programs' readiness requirements. Multiple pathways seek to provide these wide-ranging opportunities for postsecondary preparation (Gray & Herr, 2000).

Helping Students Navigate the Path to College: What High Schools Can Do looks at effectiveness for various strategies related to improving rates of student attendance at postsecondary institutions (National Center for Education Evaluation & The Institute of Education Sciences, 2009). The guide makes five recommendations:

1. Offer courses and curricula that prepare students for credit-bearing courses at postsecondary institutions and ensure that students understand what constitutes a postsecondary curriculum by ninth grade.
2. Utilize assessments throughout high school so that students are aware of how prepared they are for postsecondary education and assist them in overcoming deficiencies.
3. Surround students with adults and peers who build and support students' postsecondary

¹ California has developed an interactive web site (www.californiacolleges.edu), which can assist students and parents in exploring colleges and careers, planning and paying for college, and the college admissions process.

aspirations.

4. Engage and assist students in completing critical steps for postsecondary entry.
5. Increase families' financial awareness and help students apply for financial aid (Conley, 2007).

Rubrics developed by ConnectEd and others (for example, the National Career Academy Coalition) include the following key characteristics for improving readiness for postsecondary education in multiple pathways programs:

- Formal partnerships that articulate the pathways with local public and private postsecondary institutions, including training programs and apprenticeships
- Articulation that incorporates concurrent enrollment options and allows students to earn substantial postsecondary credit for pathway completion
- Guidance counseling that includes career awareness, career interest surveys, industry-relevant field trips, and visits to postsecondary institutions
- Academic counseling while in high school that ensures that students are making progress toward meeting course requirements for postsecondary success
- Assistance with the processes for completing applications for postsecondary institutions, fulfilling testing requirements, and applying for financial aid
- Formal follow-ups with students for at least four years after high school graduation
- The continuous use of data to improve the program (ConnectEd, 2008; Kirst. & Venezia, 2004)

CURRENT STATUS

A number of strategies exist to facilitate postsecondary transitions so that students have multiple options to continue their education beyond high school.²

College Credit–Earning Opportunities and Multiple Pathways

One way to establish postsecondary linkages is to provide extensive opportunities for a wide range of students to earn postsecondary credits while in high school. Traditionally, concurrent enrollment has been a way for high-achieving high school students to earn college credit. Recently, however, comprehensive concurrent enrollment programs have included a broader range of students. This approach is more structured than the traditional model and is developed through strong partnerships between high schools and local postsecondary institutions. These options can motivate students when they realize they can succeed in college and can save money by earning credits while in high school.

California's high schools and postsecondary institutions partner in many ways to offer concurrent enrollment options for students. These options include Tech Prep; ROCP; California Partnership Academies; 2+2 articulation agreements; credit by exam; and "piecemeal" concurrent enrollment course offerings (one course at a time with no surrounding supports). Early College Schools and Middle College High Schools are comprehensive concurrent

² In addition to the strategies outlined here, many programs in California high schools help prepare students for postsecondary education, such as AVID, the Puente Project, MESA, and The Early Academic Outreach Program.

enrollment models, often located on college campuses, which provide a high school curriculum that includes college courses prior to graduation (Hughes, 2008). Efforts range from those that are historically identified with vocational education or CTE and those that are more traditionally academic. These efforts may, or may not, include multiple pathways programs. The Concurrent Courses Initiative, funded by the Irvine Foundation, is making important headway in the field's knowledge of effective practice. However, no statewide documentation of multiple pathways includes concurrent enrollment or other transition strategies, so it is impossible to determine the extent to which multiple pathways programs are successfully using these approaches to facilitate postsecondary enrollment.

The following are components of exemplary comprehensive dual enrollment programs that support underserved populations:

- All high school students and their parents receive information and opportunities to plan for dual enrollment.
- Participating students are provided with an aligned, scaffolded sequence of rigorous high school coursework leading to capstone college courses (earning high school and college credit), with consistent and jointly established eligibility for college courses.
- The college courses, taught on high school or college campuses, focus on core instructional areas.
- All coursework is accompanied by support services.
- Mechanisms monitor and assess the quality of courses offered and the program's effectiveness.
- Partnerships between high schools and colleges clearly define the roles of the respective institutions through memoranda of understanding (Kirst, Venezia, & Nodine, 2009).

These components could apply to the multiple pathways initiative as well. However, any initiative that offers concurrent enrollment in California will run into several major challenges. These include (Kirst, Venezia, & Nodine, 2009):

- *Minimum daily attendance in high school.* California has minimum time requirements. Each dually enrolled student must attend high school at least 240 minutes per day for the school districts to claim full funding for that student. The minimum attendance levels are inflexible and provide disincentives for high schools to create opportunities for students to take college courses. College classes are often offered in blocks of time on odd or even days, an approach that conflicts with schedules requiring students to attend high school daily.
- *Dual enrollment students receive low priority during registration.* The state requires that high school students who are dually enrolled receive low priority for community college courses during registration, so that they will not displace other community college students. This requirement is particularly problematic now, given course cutbacks in higher education this academic year.
- *Limitations on college enrollment of high school students during summer.* The state caps dual enrollment in summer sessions at California community colleges.

To address these challenges, the state must develop a clear vision of the definition of student readiness for postsecondary opportunities. As *Ramp Up to College* (March 2009) states:

California's policy approach to dual enrollment has largely been focused on guarding against the abuses of finance policies.... The lack of a statewide vision for the role of dual enrollment in college readiness has had a chilling effect on existing and prospective [comprehensive concurrent enrollment] programs and has made them vulnerable to short-term, *ad hoc* decision-making and changing conditions at the local level.

American Diploma Project and the Early Assessment Program

California participates in the American Diploma Project's (ADP) efforts to align high school standards, assessments, and curriculum with the demands of postsecondary education and careers. Recently, the ADP has focused on helping California leaders reach agreement on the use of a common assessment as an indicator of progress toward postsecondary readiness. The proposed instrument is the augmented eleventh grade California Standards Test (CST), which is the cornerstone of the Early Assessment Program (EAP) that the California State University system developed to improve student preparation for CSU curriculum and reduce the need for remediation. Students who perform satisfactorily on the augmented CST are exempted from remedial coursework at CSU. The California Community Colleges are developing a plan for implementing EAP, and the UC is conducting an analysis of its possible use (PACE, 2009).

A-G Issues

Another mechanism that is an integral part of the multiple pathways initiative is the use of a-g requirements.

Although the UC campuses use a wide range of criteria when assessing applications, the requirement for passing a-g courses is the primary signal that prospective students currently receive about readiness for four-year, public postsecondary institutions in California. However, using a-g requirements in this way is not without controversy, as is evidenced by the recent unsuccessful statewide effort to require a-g as the default curricula for high school graduation, and the successful adoption of it as district-level policy in places such as Los Angeles and San Jose. In addition, the current completion of a-g curricula varies substantially by ethnicity, which has broad implications for equity. For high school graduates, 40 percent of white students and 58 percent of Asian students complete the a-g curriculum, compared to only 25 percent of African American and 22 percent of Latino students. Of the students who start ninth grade (including students who later drop out of high school), only 14 percent of African American and 12 percent of Latino students complete a-g requirements. Currently, however, a-g remains the most widespread and recognized criteria across the state.

The longstanding tension between CTE and a-g is receiving new attention. Efforts are under way to resolve concerns that students who take an applied course sequence cannot be eligible for the UC or CSU, and that students who complete the a-g sequence will have no room in their

schedule for CTE courses. The multiple pathways approach works to relieve that tension by providing pathways that combine CTE and a-g curricula.

Over 6,500 CTE courses are approved by the UC for a-g, representing over 25 percent of the total number of CTE courses statewide. However, most CTE courses are still not eligible, and very few are in core areas such as English, mathematics, and history/social science.

Summary of California High School Career Technical Education Courses Meeting University of California A-G Admission Requirements from 2008-09 (CDE, 2008)								
Categories ³	AG	BUS	HC	HE	IT	AE	OT	Totals
Number of Schools with UC-Approved CTE Courses	320	411	544	140	251	799	270	---
Number of CTE Courses Meeting the A – History/Social Science	25	10	2	0	0	0	5	42
Number of CTE Courses Meeting the B – English	4	11	6	0	0	1	3	25
Number of CTE Courses Meeting the C – Mathematics	0	5	0	0	0	1	0	6
Number of CTE Courses Meeting the D – Laboratory Science	312	0	541	2	19	0	159	1033
Number of CTE Courses Meeting the E – Language Other Than English	0	0	0	0	0	0	0	0
Number of CTE Courses Meeting the F – Visual Performing Arts	9	39	0	35	195	3014	0	3292
Number of CTE Courses Meeting the G – College Preparatory Elective	558	642	234	143	238	122	174	2111
Total Number of UC-Approved CTE Courses		908	707	783	180	452	3138	341
Number of Schools with No UC-Approved CTE Courses Offered	---	---	---	---	---	---	---	152
Number of Schools Unable to Retrieve Information or New School – No Listing	---	---	---	---	---	---	---	18
Number of Schools with UC-Approved CTE Courses	---	---	---	---	---	---	---	981
Total High Schools Reviewed	---	---	---	---	---	---	---	1151

The UC has, on average, approved approximately 900 CTE courses per year since 2007-08. UC’s goal is to have 10,000 CTE courses approved by the end of the 2011-2012 school year.⁴ The UC and CSU are developing a UC Curriculum Institute to train teachers and develop courses for a-g approval. In addition, the UC has extended “program approval” status to certain programs (e.g., agricultural education), streamlining the approval process for courses in those programs. The CDE, UC, and the California Association of Regional Occupation Centers and Programs are currently discussing the creation of an ROCP statewide certification system.

To achieve the goals of the multiple pathways initiative, close the achievement gap, and increase student completion in postsecondary education, students must have access to courses that better prepare them for multiple postsecondary options. Whether a-g is the best approach, or a proxy, is

³ Categories are Agriculture Education (AG); Business Education (BUS); Health Careers (HC); Home Economics Careers and Technology (HE); Industrial and Technology Education (IT); Art, Media, and Entertainment (AE); and Other Career Technical Industry Sectors (OT).

⁴ It is important to note that not all CTE courses, given the “hands-on” focus, are appropriate for meeting the requirements for university admission. In fact, adopting a more theoretical or academic approach could defeat the purpose of many courses and compromise their value to students.

under debate, but there is concern that it is not sufficient (Grubb & Oakes, 2007). The CSU adopted the a-g requirements to reduce remediation, but its remediation rates barely changed after the adoption. The CSU developed the EAP as another approach to reduce remediation. This program calls into question the efficacy of a-g as an indicator of college readiness. For example, Stanford's Bridge project found that high schools sometimes have different college preparatory tracks that meet a-g requirements – a higher level track that UC-bound students tend to follow, and a lower level track that CSU – and California community college-bound students tend to follow (Venezia, Kirst, & Antonio, 2003).

A recently enacted law (SB 147, DeSaulnier) encourages CSU to include more CTE classes as eligible for admissions requirements. The new law requires that the CSU Board of Trustees develop and implement a process whereby high school CTE courses can satisfy a general elective course requirement for admission to CSU. To the extent possible, the costs associated with these activities are to be covered by the Perkins Career and Technical Education Improvement Act or by other non-state funds.

Articulation of CTE Programs

SB 70 seeks to build stronger relationships between educators and employers to increase career exploration for middle school students and provide opportunities for high school and older students to apply classroom learning in real-world settings through internships, apprenticeships, and other work-based learning. The initiative also seeks to create seamless pathways that coordinate career and technical education programs across K-12, ROCPs, community colleges, and four-year institutions, utilizing such strategies as career exploration and model articulation agreements.

Regional Occupational Centers and Programs

As a result of AB 2448 (Hancock), ROCPs are required to articulate 90 percent of their state-funded courses to the community colleges. This requirement, along with the requirement to provide a "Course Sequencing Plan," provides both students and parents with a pathway that can assist students in reaching their career goals.

Community Colleges

Community colleges offer several types of CTE programs that provide easy access to education at convenient locations and times.

Community college credit-bearing occupational programs. The community colleges offer college-level courses in more than 270 occupational program areas, ranging from accounting to Internet administration, many of which lead to certificates or licenses based on industry standards. These programs range in length from a few courses to two years. More than 5,740 credit CTE programs of 18 or more units are currently offered in community colleges.

Programs on most campuses are overseen by vocational deans or deans of vocational education and economic development. All new CTE programs must be approved through the district

curriculum committee process and demonstrate a sufficient labor market demand for graduates. Programs that require 12 or more credits and appear on students' transcripts must also be approved by the Chancellor's Office. In new or emerging areas, programs are also sent to the California Postsecondary Education Commission for review.

Beyond meeting college course and program standards, courses and programs must meet standards set forth in the *Program and Course Approval Handbook* published by the Chancellor's Office, Title 5 of the *California Code of Regulations*, and the *California Education Code*. Additionally, the regular and systematic review of instructional programs is mandated not only by Title 5 regulations and *Education Code* statutes, but also by the standards of the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges (WASC).

In addition, all of California's community colleges offer Cooperative Work Experience Education (Co-op), work-based learning that integrates classroom knowledge with productive work experience in a business or industry, guided by a learning plan. Co-op programs help students clarify career goals; reinforce academic skills, workplace competencies, or occupation-specific technical skills; and assist in transitions to employment. Co-op courses are not restricted to students in occupational programs.

ROCPs, Adult Education, and Community College-Based Apprenticeships. To provide quality classroom based Related and Supplemental Instruction (RSI) to approximately 70,000 apprentices annually, training committees partner with ROCPs, adult schools, and community colleges. RSI classes typically occur after work or in one or two week blocks, when apprentices are not participating in the on the job training (OJT) requirement of their apprenticeship. Training programs are either affiliated with ROCPs and adult schools through the California CDE or with local community colleges and the CCCCCO. The CDE and CCCCCO work closely with the Division of Apprenticeship Standards to support, monitor, and evaluate apprenticeship training statewide, as directed by the *Labor and Education Code*. Many apprenticeship programs require three to five years of training and in some instances are equivalent to a BA degree in terms of classroom and OJT training time.

Tech prep programs. Tech Prep programs link high school and two-year college programs in specific technical fields and occupational areas. The programs are defined as planned sequences of courses in technical fields that combine a minimum of two years of secondary education and a minimum of two years of postsecondary education in a non-duplicative sequenced course of study or in an apprenticeship program of not less than two years. The sequence culminates in an associate degree or a certificate (U.S. Department of Education, 2006).

The Perkins Act requires Tech Prep programs to include seven elements (U.S. Department of Education, 2006):

- An articulation agreement between secondary and postsecondary consortium participants
- A 2+2, 3+2, or a 4+2 design with a common core of proficiency in math, science, communication, and technology
- A specifically developed Tech Prep curriculum

- Joint in-service training of secondary and postsecondary teachers to implement the Tech Prep curriculum effectively
- Training of counselors to recruit students and to ensure program completion and appropriate employment
- Equal access for special populations to the full range of Tech Prep programs
- Preparatory services, such as recruitment, career and personal counseling, and occupational assessment

In addition, states must give consideration to Tech Prep programs that do the following:

- Offer effective employment placement.
- Transfer to four-year baccalaureate programs.
- Are developed in consultation with business, industry, labor unions, and institutions of higher education that award baccalaureate degrees.
- Address dropout prevention and reentry and the needs of special populations.
- Provide education and training in an area or skill, including an emerging technology, in which there is a significant workforce shortage.
- Demonstrate how tech prep programs will help students meet high academic and employability competencies.
- Demonstrate success in, or provide assurances of, coordination and integration with eligible recipients of Title I.

Community colleges – four-year articulation in CTE. There have been numerous efforts since the 1980's directed toward community college and four-year institution articulation. Some students attend community colleges to prepare for transfer to a four-year university. Much attention has been devoted to building pathways connecting high schools to community colleges. Less attention has been placed on extending the educational pathway further from the community college to four-year institutions. The Articulation with Four-Year Institutions Study (also called the CTE Two-Four Year Transfer Research Project) explores how to ensure that students can continue to four-year colleges or universities while pursuing their career interests in the first two years of community college. The project assesses the state of transfer between community colleges and four-year institutions for CTE students.

The project was launched in 2007 with support from the California Community College Chancellor's Office and continues with additional funding from the James Irvine Foundation. The project is implemented by the Center for Student Success of the Research and Planning Group for California community colleges. Below are findings that faculty, administrators, and students participating in the CTE transfer study identified.

- California does not, like some states, specify general education requirements for CTE students. For example, 23 states **require** that CTE programs include transferable general education coursework, and California is one of 17 states that only encourages such action. Requiring CTE programs to include transferable general education coursework *may* mean more options for students who complete the program and want to transfer to four-year institutions. However, additional course requirements could also burden students who only seek CTE-program specific certificates.

- California is exploring new ways to award CTE baccalaureate degrees, but no system connects or assesses existing projects. In the past decade, several states, including Florida, Texas, Nevada, and Washington, approved a process for community colleges to award Applied Baccalaureate Degrees in disciplines or geographical areas experiencing serious workforce shortages. With a \$100,000 investment in the 2006-07 Community College Baccalaureate Partnership Act, California began encouraging collaboration between two- and four-year institutions to facilitate students' completion of a baccalaureate degree on community college campuses in areas with low baccalaureate attainment and specific labor market demands. Two CSU campuses (Dominguez Hills and Stanislaus) offer the Applied Studies Baccalaureate degree. Both are interdisciplinary and housed in the host colleges' business departments. Two additional Applied Studies Baccalaureate degree models are offered at four-year colleges around the country.

In California, nursing and child development are the only disciplines that have made significant progress in developing a statewide infrastructure for 2/4 CTE transfer. The CSUs agreed to a standardized curriculum for the B.S. degree in nursing. A community college effort created a foundational core of child development courses; it parallels a CSU initiative to award full credit to transfer students who complete the courses.

The CTE Transfer Research Team conducted surveys and interviews to identify barriers to and opportunities for 2/4 CTE transfer. Effective practices supporting CTE students in their pursuit of transfer included:

- Regional or statewide agreements between community colleges and the CSU/UCs to streamline and support transfer in one or more high growth disciplines (e.g., nursing)
- Regional agreements, often between one CSU and several local community colleges, around one CTE program
- Bridge or connector courses for students interested in transfer designed to increase their preparedness for university-level instruction
- Incorporation of transfer information (e.g., through outreach, recruitment, field trips) into courses so students are aware of opportunities to transfer to four-year institutions
- Dedication of advisors or counselors to CTE programs to provide information and technical assistance related to specific transfer paths and opportunities
- Connections with mentors, including faculty, counselors, employers, and peers
- University partnerships to offer baccalaureate-level courses at the community college to address distance issues

Private Postsecondary Colleges and Universities

Private colleges and universities account for about 16 percent of undergraduate students. While this percentage is small compared to other large states, student enrollment in California's private institutions has increased in the past decade, particularly in state-approved private colleges not accredited by WASC. These institutions include the University of Phoenix, which enrolls over 140,000 students across the state (Johnson & Sengupta, 2009). These enrollment increases and innovative delivery models suggest that partnerships with local private institutions—and online education opportunities—are important for multiple pathways.

Examples of Postsecondary Linkages

Some examples of current postsecondary linkages with multiple pathways could potentially be used as models for others beginning to explore these relationships.

In March 2007, the Long Beach Unified School District's (LBUSD) Board of Education adopted the Academic and Career Success Initiative (ACSI) to increase the college and career readiness of all students and ensure that students graduate from Long Beach high schools with as many postsecondary options as possible. The initiative includes efforts to educate students and parents about a-g courses (without requiring that all students complete the a-g curriculum) and about career options as early as sixth grade; collaboration between K-12 and higher education to establish criteria for guaranteed college admission; and identification of various college pathways for students and aligning these higher education initiatives with CTE to ensure that students have as many options as possible upon graduation from high school.⁵ Specific examples of practices in Long Beach include:

- **Collaboration among leaders across educational segments:** In March 2008, leaders from LBUSD, Long Beach City College (LBCC), and California State University at Long Beach (CSULB) signed the Long Beach College Promise (<http://www.aypf.org/publications/documents/TheLongBeachPromise.pdf>) — a joint commitment to make college an attainable goal for all students. This promise includes a tuition-free first semester to all incoming LBCC students by 2011, and the offer of admission to CSULB to students who complete minimum college preparatory requirements or minimum community college transfer requirements. While this was not specifically a multiple pathways initiative, its development helped perpetuate the model.
- **Collaboration across segments regarding core content:** LBUSD and LBCC faculty jointly developed the articulation agreement for a beginning carpentry course. They put together all of the requirements for students to complete the course. Upon course completion, students are referred for enrollment in the college course. Since attaining the appropriate level of mathematics skills is a challenge for many students, teachers provided a study guide to help students pass the exam. (Site visit at Jordan High School for statewide evaluation of CTE Pathways Initiative. Spring 2009.)

Some promising practices for utilizing postsecondary linkages are a key component of multiple pathways. For example, representatives from community colleges, four-year institutions, and business and community organizations visit middle schools and talk to students about preparing for college and the workforce. In another example, Santa Barbara City College has used counselors to directly connect with high school students. A designated CTE counselor supports all of the high school academies and multiple pathways. This counselor meets with high school teachers and counselors and hosts a fair on campus that brings both college and high school students together to meet college department chairs and faculty.

⁵ To find out about the Academic and Career Success Initiative, go to LBUSD's website: http://www.lbschools.net/Main_Offices/Superintendent/Success_Initiative/

CHALLENGES

Creating a Postsecondary Culture in High School

A key issue in the success of multiple pathways will be ensuring that high schools (and, ideally, middle schools) have a culture that encourages postsecondary education and life-long learning.

David Conley (2005) argues that this culture requires that students receive information about several key factors: the knowledge and skills necessary for postsecondary success, admissions requirements and processes, financial aid and testing requirements, and habits of mind — the non-academic knowledge and skills necessary to thrive in postsecondary education. A postsecondary culture enables students to not only be eligible for admissions, but to be prepared to succeed in postsecondary coursework.

California-specific issues related to a postsecondary culture include increased awareness of a-g requirements, increased awareness of UC/CSU testing requirements, and increased expectations among teachers about how many students might advance to (and succeed in) postsecondary education (<http://collegetools.berkeley.edu/>). Equally important, it would be useful for students to have increased awareness of community college expectations, but those are not as clearly communicated as are those for the four-year segments. The reason is important; namely, community colleges must serve everyone in their communities and do not want to diminish access by appearing to have standards that are too high. The reality, though, is that all community colleges have standards in place for students to be able to enroll in college-level courses, yet those standards are not communicated clearly to high school students. This issue is critical for the multiple pathway initiative since many pathways link directly to community college pathways.

Currently, many California schools are not well equipped to provide postsecondary information or to have these expectations and opportunities for all students. In addition to caseload problems, counselors often have so many immediate fires to put out (e.g., discipline problems, testing, psychological counseling) that college counseling — particularly for students who are not viewed as college-bound — falls to the back burner or never occurs at all. (Venezia, Kirst, & Antonio, 2003)

Further, in a multiple pathways environment, promoting and supporting postsecondary education opportunities must strike a balance between encouraging high aspirations and conveying information about all options, including training programs, military options, community colleges, and four-year universities — and the benefits of each in light of the students' interests and goals.

AVID is an example of a successful program that creates a postsecondary culture for students in the middle who are often economically disadvantaged and underachieving. The program enables disadvantaged secondary students to succeed in rigorous curricula, enter mainstream activities in school, and increase their opportunities to enroll in four-year colleges.

Eleven AVID regional centers in California provide financial assistance for professional development activities, regional technical assistance and quality control, coaching, special tutor training, mentoring, curriculum, data collection, annual certification, regional academic outreach and Advanced Placement awareness, and student support services to AVID schools.

Monitoring Student Progress

Information on student progress both during and after high school will be critical to the successful implementation of a postsecondary transition component of the multiple pathways initiative. For example, schools will need to conduct better monitoring of whether students are meeting a-g requirements, so that students can be aware of any deficiencies with sufficient time to change their schedules.

The Transcript Evaluation Service (TES), administered by the UC Office of the President and available to public high schools upon application, might help schools have a better sense of how well their students are progressing towards meeting a-g requirements. The TES electronically examines the transcripts of a high school's students. Schools can use information from TES reports to determine whether individual students are on track to meet a-g course requirements or reach postsecondary goals for work. In addition, schoolwide reports can also help schools determine whether they are offering a sufficient number of a-g in each subject. A recent pilot test found that schools using the TES were actually able to increase the proportion of students, particularly in grades nine and ten, who were on pace to meet the UC and CSU requirements (Sanchez, et al., 2009). The study researchers recommended that TES should be made available to more high schools, as it currently exists in only 80 high schools. TES could be modified to show whether students have taken CTE courses that have been approved for a-g credit; tracking completion of all CTE courses would require significant changes to the TES.

A successful postsecondary transition component of multiple pathways must also gather information on what happens to students who go on to postsecondary education and then enter the workforce, and for students who enter the workforce directly after high school. Often, schools are only concerned about how many students they send to college – not if they complete college.

Cal-PASS (the California Partnership for Achieving Student Success) (<http://www.cal-pass.org/>) collects, analyzes, and shares student data from elementary school through postsecondary education for institutions that sign annual agreements to participate in data sharing. Over 6,800 K-12 schools and postsecondary institutions over 50 counties currently participate in Cal-PASS. It is a regional approach to collecting and utilizing data, although the potential for statewide data use is strong; the main foci are to track student performance and improve student success rates throughout California's educational systems.

A second “prong” of Cal-PASS’ is to develop and utilize — regional councils comprised of teams of discipline-based faculty from elementary school, middle school, high school, community college, and university segments. The councils discuss curriculum, teaching practices, instructional materials, and performance measures, using the transition data to frame the conversations. Current councils focus on language arts, mathematics, English learners, career

preparation, science, and counseling. If multiple pathways participation was identified on students' high school transcripts, Cal-PASS data could potentially be disaggregated by that factor to help policymakers, researchers, and educators understand the effectiveness of the pathways in relation to high school graduation, postsecondary entrance, and postsecondary completion. Cal-PASS is currently enhancing its capacity to include workforce data.

System Structure

The segmented nature of California's education system poses a major challenge to establishing strong postsecondary linkages as part of multiple pathways. The three-tiered higher education system tends to focus on distinctions among the segments rather than on statewide needs (Richardson, et al., 1999; Callan & Finney, 2003).

CONCLUSION

Readiness for postsecondary education opportunities in community colleges; colleges; universities; and vocational, technical, or professional schools and ultimately high-wage careers is the ultimate goal of multiple pathways programs. While California has several programs designed to improve students readiness and access, California must continue to address a number of challenges for students to have full access to these options.

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