Ramp-Up to College in California:

A Statewide Strategy to Improve College Readiness and Comprehensive Dual Enrollment

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EXECUTIVE SUMMARY

California faces several major challenges affecting educational opportunity and the future of its economy: severe state budget constraints, a substantial increase of low-achieving students in the education pipeline, an increasingly diverse population, and the need to grow the state's knowledge-based industries. During this pivotal time, innovative high schools, colleges, universities, and others have created promising partnerships to improve the college readiness of high school students throughout the state. While these programs offer many benefits, they have developed without the support or alignment of a statewide policy vision that encourages college readiness.[1]

This lack of an overall vision for college readiness prevents California from taking advantage of recent innovations, particularly those made by comprehensive dual enrollment programs—referred to in this paper as Ramp-Up to College programs. Unlike dual enrollment programs in the past, Ramp-Up projects actively recruit middle- and low-achieving student populations that historically have been underrepresented in colleges and universities.

All high school students in California can benefit from aligned coursework and supports that smooth the transition to postsecondary education and training.

These programs provide students with the motivation of receiving college credits while in high school; the cost savings can be particularly appealing to low-income students. In addition, Ramp-Up programs create high school-college partnerships to develop aligned, scaffolded sequences of rigorous high school coursework leading to capstone college courses. These courses, in turn, introduce high school students to college-level expectations and academic work. All high school students in California can benefit from aligned coursework and supports that smooth the transition to postsecondary education and training.

Many of California's policies and practices, however, have been crafted under the assumption that dual enrollment is primarily an opportunity for academically advanced students to gain college credits while still in high school. Partly because of some dual enrollment practices in the past, the state has erected barriers that inhibit the creation and growth of programs that use dual enrollment as a strategy to improve the college readiness of a broader range of students. It is time to reimagine dual enrollment in California.

[1] There are many kinds of postsecondary options for students, including career and technical paths, certificates, and degrees. This paper refers to all of these options when discussing preparation for "college" or "postsecondary education."

Early research suggests that Ramp-Up approaches not only provide smoother transitions to postsecondary education, but also offer the following outcomes in comparison with local traditional educational programs:

- increased average proficiency on state assessments;
- increased retention rates in high school;
- increased on-time graduation rates;
- increased college credits earned in high school; and
- reduced time-to-degree for students.

There are additional costs associated with Ramp-Up practices—for example, the costs of paying average daily attendance (ADA) at high schools and full-time-equivalent (FTE) enrollment at colleges; aligning curriculum between the segments; providing student supports; and offering professional development for teachers and instructors across the high school-college divide. Despite these costs, projections suggest that these programs may decrease overall costs to college completion, primarily due to lower remediation rates and faster time-to-degree after high school graduation.[2]

Ramp-Up programs may decrease overall costs to college completion by lowering remediation rates and promoting faster time-to-degree.

Based on these findings, this paper offers many specific recommendations that seek to transform California from a state that inhibits students from getting a jump start on their college education to a state that uses Ramp-Up practices as key components in its overall effort to expand postsecondary opportunity to a greater proportion of students. Some of the recommendations have no additional costs. The recommendations fall into two overall areas:

1. **Open doors to college opportunity and success** by encouraging Ramp-Up approaches to thrive. California's current policies and practices often prevent Ramp-Up programs from reaching meaningful scale.

2. **Create a statewide vision and strategy for college readiness** that makes California a leader in encouraging practices that improve student preparation for postsecondary education and training, particularly for populations that have traditionally been underrepresented in college.

Ramp-Up practices offer California a strategy for complementing and enhancing the work that is already being done throughout the state to improve college readiness. This approach is not a magic bullet, but rather one piece of a larger state strategy to improve high school to postsecondary transitions for all students. Given today's financial

[2] For information on these outcomes and costs, see section III of this paper.

climate, California cannot afford to overlook innovative opportunities to improve the college readiness of its diverse population—particularly those opportunities that can reduce the need for remediation and accelerate degree completion.

I. INTRODUCTION: A NEW VISION FOR COLLEGE READINESS

For several decades, California has faltered in preparing high school students for postsecondary education or training—particularly for students entering the California Community College (CCC) and California State University (CSU) systems. The well-documented symptoms include elevated dropout rates in high school, startling remediation rates in college, and stagnant college completion rates (*see sidebar*). The negative effects of having a poorly educated population are also well documented; they include projections of a poorly trained workforce (*see Appendix I*). Meanwhile, there is evidence of a growing awareness of these symptoms and their devastating effects, as college readiness projects have sprung up throughout California—some supported by taxpayers, others by foundations, and still others by school districts, colleges and universities (*see Appendix II*). While these programs offer many benefits, they have been developed without the support or alignment of a statewide policy infrastructure for college readiness.

Poor College Preparation

- For every ten students in California who start high school, seven graduate, just over three go on to postsecondary education, and fewer than two complete a degree within six years (Ewell, Jones and Kelly 2003).
- More than half of the first-year students who enter the California State University and far more than half of those who enter the California Community Colleges need at least one basic skills or remedial education course (CSU 2008; CCC Academic Senate 2003, p. 2).

At least one promising national trend, however, appears to be resisting the drift toward poor preparation for college, a trend that is consistent with most college readiness projects already under way in California, and that may offer the state a pathway forward in developing a statewide policy framework for college readiness: A growing number of high school students across the country are earning college credits while still in high school (Karp and Jeong 2008; Karp *et al.* 2007). In the past this practice—which has been called dual enrollment, dual credit, articulated credit, or concurrent enrollment—was relatively uncommon and was used primarily by academically advanced high school students who needed additional challenge. The students who participated were typically from populations that were likely to attend college anyway, and in most cases these students had to petition for special permission to enroll concurrently in college courses.

Recently, however, the practice of offering college-level courses to high school students has undergone a substantial transformation, as broader programs have been developed in many locations—and supported by state policy in some states—to target

underserved student populations that historically have been less likely to attend college. The most promising programs in reaching these broader populations appear to be comprehensive rather than piecemeal in approach. That is, these programs build partnerships between high schools and postsecondary institutions to develop aligned coursework and support systems for middle- and low-achieving high school students. Students enrolling in these aligned pathways proceed through a sequence of classes that culminates in earning college credits during their junior or senior years. Participating high school students, instead of facing barriers, are provided with smooth transitions to, and experiences in, college.

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For example, Middle College High Schools (MCHSs) and Early College Schools (ECSs) offer comprehensive dual enrollment programs. They use similar intensive supports, partnerships with postsecondary education, and dual enrollment offerings to prepare underserved students for postsecondary education.[3] Exemplary comprehensive dual enrollment programs include the following kinds of practices to reach and support underserved populations:

- All high school students and their parents, including those from underrepresented populations, 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, which are taught on high school or college campuses, are focused on core instructional areas;
- All coursework is accompanied by a range of support services to increase and sustain student success;
- Mechanisms are in place for monitoring and assessing the quality of courses offered and the effectiveness of the program; and
- Partnerships between high schools and colleges clearly define the roles of the respective institutions through memoranda of understanding and ongoing collaboration. (*For more information, see Section II of this paper.*)

Comprehensive approaches that include these kinds of practices and that target middle- and low-performing students are referred to in this paper as Ramp-Up to College

[3] Middle College High Schools are located on college campuses while most Early College Schools are not. Many ECSs also promise the opportunity to earn a high school diploma and associate's degree in five years.

programs,[4] to distinguish them from other dual enrollment models which have typically served a narrower segment of the student body and have been more unfocused in nature. In contrast, a Ramp-Up approach is defined as follows:

> Ramp-Up practices are specifically designed for all students—including those typically underrepresented in college—to enroll and succeed in a sequence of high school coursework and supports leading to and including college-level classes.

Many high school students think that graduating from high school will automatically prepare them for college, and that enrolling in college means that they are ready to take credit-bearing courses (Venezia, Kirst and Antonio 2003). These assumptions are incorrect, but few students learn this until they take placement tests as incoming freshmen and are required to enroll in remedial courses in core subject areas. It makes intuitive sense that high school students in California who participate in a scaffolded sequence of coursework leading to college classes during their junior or senior year gain a better understanding of what's required to succeed in college. After all, they experience the coursework themselves and benefit from the pace, homework expectations, and other habits of mind associated with credit-bearing college work.

Ramp-Up practices are specifically designed for all students—including those typically underrepresented in college—to enroll and succeed in an aligned sequence of high school classes leading to and including college-level coursework.

What may be less intuitive, however, is whether Ramp-Up practices are appropriate for broader student populations in California that have traditionally been underserved in terms of college attendance and completion. A growing body of knowledge—for these practices are in their early stages of implementation—reveals that Ramp-Up practices appear to be effective in supporting postsecondary readiness and success for broad student populations. (*For more information about impacts, see Section III of this paper.*) This is particularly important in California, given population projections that show continuing growth in the state's low-income and first-generation college-going population (Martinez 2007).

In addition, it appears that the process of developing and supporting Ramp-Up practices gives high schools and postsecondary institutions incentives to align their coursework and create smoother transitions from high school to college—which helps all students. For example, Ramp-Up practices present unique opportunities for the K-12 system and the state to receive feedback on whether college preparatory courses are meeting their intended purpose.

[4] An alternative term is Fast Track, which is used in Fast Track legislation introduced in the House of Representatives during the 110th U.S. Congress. (See Appendix III.)

Compared with traditional high schools, Ramp-Up programs do require additional upfront and ongoing costs when viewed in the short term—a prime concern during the current budgetary crisis in California. For example, these costs include developing better-aligned coursework between high schools and postsecondary institutions, providing student supports to meet the needs of the targeted population, and covering tuition charges for students. Despite these additional costs, however, early cost-to-degree projections reveal that Ramp-Up programs may save the state money in comparison with traditional educational programs. These projections are based on early outcomes from Early College Schools showing increases in the proportions of students completing high school courses and getting a head start in earning college credits—indicators that also make students more likely to complete a certificate or degree.[5] (*For more information about costs, see Section III of this paper.*)

Ramp-Up to College, because it reaches a broad student population, offers an approach that supports other strategies for college readiness and success.

Many college readiness initiatives are currently under way in California. Ramp-Up to College, because it reaches a broad student population, offers an approach that supports other strategies for college readiness and success. Besides the Middle College High Schools (MCHSs) and Early College Schools (ECSs) in California, other programs that could be consistent with a Ramp-Up approach include the James Irvine Foundation's Concurrent Courses Initiative (including ConnectEd and other programs to develop multiple pathways), California Partnership Academies, the California Department of Education's High Performing High Schools Initiative, the Early Assessment Program (EAP) for the California State University (CSU), and many high school reform efforts statewide. (*For more information, see Appendix II.*) In addition, California has several large-scale dual enrollment programs run by high school-postsecondary partnerships. With a statewide policy framework supporting them, these programs could provide a central core for a college readiness initiative in California.

Currently, however, California lacks a comprehensive vision and strategy for college readiness. In addition, partly because of a history of improper *ad hoc* dual enrollment practices in some locations, the state has erected barriers that inhibit the creation and growth of more comprehensive Ramp-Up practices. These include financial and programmatic barriers that make it difficult to for programs to build and sustain the ongoing partnerships needed to create seamless transitions between high school and postsecondary education. (*For more information about these barriers, see Section IV of this paper.*)

[5] Studies have shown that the more college credits earned, the bigger the impact on college graduation. For traditional-age students who completed 20 credits, their chances of graduating increased by seven times as compared with a similar traditional-age student who had not reached that milestone (Calcagno *et al.* 2006).

This paper explores the relatively new and growing body of knowledge about Ramp-Up efforts and their costs, identifies the key policy barriers for these kinds of programs in California, and offers short- and long-term recommendations to assist the state in taking advantage of Ramp-Up practices as part of a statewide vision for college readiness. (*See Appendix IV for methodology.*)

II. CRUCIAL ELEMENTS OF RAMP-UP TO COLLEGE

Unlike traditional dual enrollment programs that have primarily served students who are advanced academically, comprehensive dual enrollment programs—that is, Ramp-Up to College—serve broad student populations that have been underrepresented in college. These kinds of programs have been in operation in the United States since at least 1974, when the first Middle College High School (MCHS) was inaugurated at LaGuardia Community College in New York.[6] A similarly comprehensive model was developed by the Early College High School Initiative, implemented in 2002 under the leadership of the Bill & Melinda Gates Foundation.[7]

The promise of earning college credits while in high school helps to motivate students and offers them a jump start on gaining college credits.

As of 2008-09, there were 202 Early College Schools (ECS) in the United States.[8] California has 39 ECSs, the second largest number in the country after North Carolina's "Learn and Earn" schools, which likewise offer comprehensive dual enrollment as part of a scaffolded course of study for grades 9 to 14. But whereas California's ECSs have developed without a strong state policy framework, North Carolina has created state finance policies that use early college experiences as part of an overall college readiness approach. Likewise, the Texas Legislature has recently provided funding to help districts offer all students the opportunity to earn at least 12 college credits by high school graduation. Other states such as Ohio, Georgia, and Utah are using similar strategies to develop comprehensive dual enrollment to support strong pathways to college success for all young people (Hoffman, Vargas and Santos 2008).

Given the variations of local and state educational governance, structure, and policy in the United States, there is no single model for the effective delivery of comprehensive dual enrollment for underrepresented students. There are emerging practices, however, that span existing Ramp-Up programs and that build from the literature of effective educational

[6] Bard College at Simon's Rock is an early college that was begun in 1966.

[7] Whereas all MCHSs are located on a community college campus, some ECSs are on college campuses and others are on high school campuses or other locations. In addition, ECSs offer their students the opportunity to earn an associate's degree (or up to two years of college credit) and a high school diploma within five years, whereas that is not a major tenet of MCHSs.

[8] Based on Jobs for the Future (JFF) data.

programs for underrepresented students and effective dual enrollment practices generally.[9] These practices feature the following six common elements.

1. Broad Student Recruitment

All high school students and their parents receive information and opportunities to plan for dual enrollment, including recruitment of underrepresented populations.

In serving as a bridge to college for students who are not typically college-bound, programs that include Ramp-Up practices reach out to all students during their first year of high school—or earlier—to provide information about and planning for dual enrollment. This approach requires outreach to and recruitment of low-income and minority populations, and specifically middle- and low-achieving students. For these programs, recruitment into a rigorous, scaffolded series of courses leading to and including college courses does not depend on previous academic performance. Most students in their first years of high school would take high school courses that prepare them for the rigors of college. As the next section describes, the curriculum is connected, or aligned, between high school and college, providing transparent pathways into college-level work once students are academically and socially ready for those experiences.

The promise of earning college credits while in high school helps to motivate students and offers them a jump start on gaining college credits. This opportunity can be particularly appealing to low-income students and their families, who may think they cannot afford college.

2. Aligned Curricular Pathways

Participating students are provided with an aligned 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.

As part of recruitment and outreach processes, students are informed of and enrolled in scaffolded coursework that builds toward enrollment in college courses during their junior and/or senior years. Establishing a limited number of curricular pathways—for example, high school courses that build toward and culminate in English and math college-credit-bearing courses—offers a promising way to meet the needs of students from a broad range of academic experiences. The pathways, in turn, can serve to connect high school and postsecondary educational structures, with college courses both as a

[9] More research needs to be completed about best practices in comprehensive dual enrollment programs. This section draws from the expertise developed through the Early College High School Initiative and from related educational research. For example, see Gates and JFF 2008; Hoffman, Vargas and Santos 2008; information from the National Alliance of Concurrent Enrollment Partnerships (see www.nacep.org); and a wealth of research currently under way at Columbia University's Community College Research Center (see http://ccrc.tc.columbia.edu).

capstone to rigorous college preparation and as an entryway to further college-level education (Hughes *et al.* 2006).

A primary benefit of Ramp-Up programs is that they provide incentives and opportunities for high schools and postsecondary education to align their coursework in more transparent ways—which benefits all students, whether or not they participate in college credit-bearing courses during high school. The overall aim is to provide instructional activities along specific pathways through a sequence of high school courses that prepares all students for postsecondary education in at least one area. As students demonstrate their readiness for college credit-bearing work, they enroll in college courses. For those students who may not take college courses in high school, they can still benefit from the college preparatory sequence.

For example, College Now, which began in 1984, now operates dual enrollment programs at all 17 colleges of the City University of New York (CUNY) (*see sidebar*). As the program has sought to expand its reach to include more lower-achieving students, it has developed pre-college courses and activities for younger students in order to build their college knowledge. As part of this approach, College Now has developed foundation courses that are now provided in high schools in order to help these students prepare for the rigors of college. The courses were developed by high school teachers and college faculty as part of a curriculum and professional development project. Each course, which earns high school credit, is designed to introduce students to a particular field of study (Meade and Hofman 2007).

Similarly, in California, the Early Assessment Program developed by the California State University (CSU) and the California Department of Education (CDE) began primarily as an assessment of 11th graders' readiness for CSU. The CSU has now begun to develop new 12th-grade courses, student supports, professional development, and in-service trainings, all aligned with the college readiness expectations (Spence 2000). Currently, however, there are not

A Ramp-Up Approach in New York

CUNY's College Now offers an example of comprehensive dual enrollment program. College Now provides free college-level and college preparatory courses and related activities to more than 30,000 high school students from over 280 public high schools in New York City. Courses and activities are offered before and after school, on college and high school campuses, and over the summer. In addition, the program has a focus on helping students meet high school graduation requirements.

In 2005, about 14,600 high school students enrolled in college classes (15 percent of the juniors and seniors in New York City). Eighty-one percent of the students completed the course(s) successfully. To reach students who are likely not on track to participate in college-level work, College Now provides multiple options, including pre-college courses and activities for younger students to help them prepare for college.

enough EAP-sponsored 12th-grade classes to prepare students for college in California, and diagnosis and preparation efforts need to start before 11th grade.

For Ramp-Up programs, eligibility of high school students for college-level courses is best determined jointly by secondary and postsecondary sectors. For example, instead of having a single, state-mandated test in a subject area, Ramp-Up programs offer the benefit of providing multiple ways for high school students to demonstrate readiness, including a combination of tests, grades, teacher recommendations, and portfolios. In addition, it is important that high school students be able to enroll in a college course based on the prerequisites for that course; students need not meet all college-admission requirements. In most cases, students are encouraged to take college courses in their strongest academic areas. In general, dual enrollment students should not be taking remedial education classes in college.[10]

The National Alliance of Concurrent Enrollment Partnerships (NACEP), which provides accreditation for dual enrollment programs, offers the following standards for dually enrolled students:[11]

- High school students enrolled in college courses through a dual enrollment program are officially registered or admitted as degree-seeking, non-degree or non-matriculated students of the sponsoring postsecondary institution.
- Dual enrollment students are held to the same standards of achievement as those expected of students in on-campus sections.
- Dual enrollment program students are assessed using the same methods as are students in "regular" college courses. (NACEP 2002)

3. College Courses in Core Instructional Areas

The college-level courses, which are taught on high school or college campuses, are focused on core instructional areas.

It is crucial that Ramp-Up practices lead toward and include enrollment in college courses in areas that are integral to students' course of study and that count toward high school graduation as well as college credit. Traditionally, many dually enrolled students have taken elective courses at the college level that may give students a "feel" for the college experience but may not improve their readiness in core instructional areas. Ramp-Up practices, in contrast, seek to improve college readiness by focusing on core academic

[10] It may be appropriate in some special cases—such as overage, under-credited students who have left high school—to take a remedial college course in order to accelerate toward college readiness in a motivational college setting.

[11] NACEP-accredited programs are ones in which high school instructors teach college courses during the school day. This is likely not the route many schools in California would take, but many of NACEP's standards are relevant for Ramp-Up programs that offer college classes taught by college faculty.

subjects. In California, these courses could include those identified in the a-g course list for UC and CSU admission, including career-technical courses. At a minimum, they include those subjects for which remediation continues to be a challenge at the postsecondary level, particularly mathematics and English.

In addition, however, Ramp-Up programs are enrolling high school students in "student success" courses—that is, courses that help students acclimate to college expectations, faculty, campus life, study skills, time management, and other crucial nonacademic issues related to success in college. Exposure to habits of mind associated with academic success is crucial for traditionally underserved students. Whereas students who are generally considered college-bound receive information about how to succeed in college from parents, peers, courses, or teachers, underrepresented students typically do not. Student success courses can provide these high school students with the cultural capital they need in order to enter college ready to succeed, both in academic and nonacademic realms (Conley 2005).

NACEP offers the following guidelines for college courses taken by high school students through dual enrollment programs:

- The college courses are catalogued and approved through the regular course approval process of the college or university. These courses have the same departmental designation, number, title, and credits; additionally, these courses adhere to the same course description.
- The college courses are recorded on students' official academic record of the college or university.
- The college courses reflect the pedagogical, theoretical, and philosophical orientation of the colleges and universities sponsoring faculty and/or academic department.
- Postsecondary institutions outline specific course requirements and prerequisites. (NACEP 2002)

4. Robust and Well-Aligned Support Services

All coursework is accompanied by a range of support services to increase and sustain student success.

While it is clear that academic readiness is the most important indicator for postsecondary success (Adelman 1999), Ramp-Up programs will not succeed to their full potential without comprehensive support services. Opening doors to college readiness for a broader range of students necessitates additional supports. High schools and colleges that serve large concentrations of students who are traditionally underrepresented in college have found that providing support services is crucial in helping these students succeed. These supports can include academic assistance and tutoring; emotional and social supports; career exploration activities; assistance in selecting courses of study, understanding requirements, and staying on track; peer support networks; student success

classes incorporating basic study and organizational skills; and a safe environment for asking questions (Woodrow Wilson National Fellowship Foundation 2008; Hughes *et al.* 2006; Cunningham and Matthews 2007).

In order for Ramp-Up practices to be successful, secondary and postsecondary institutions must identify clearly their respective responsibilities for providing student support through a well-defined partnership that includes a memorandum of understanding as well as ongoing meetings among teachers, faculty, staff, and community partners.[12] Many Ramp-Up programs provide an adult liaison between the high school and college in order to advise students, arrange course schedules, and link students to support services in the high school and college settings. In addition, Hoffman, Vargas and Santos (2008) recommend that

> high schools and postsecondary institutions together select a limited number of "high-support" pathways leading to credit in general education or a career certificate, and [that] they counsel students needing such support to participate.

These high-support pathways can be focused to support high school enrollment in college gateway courses such as English and mathematics.

Even during times of severe budget constraint, it is crucial that high school and postsecondary institutions set priorities and preserve important services like tutoring, counseling and other supports. Whether students are taking college-level courses in high school or on college campuses, exposure to at least some support services on college campuses provides students with experience functioning in a college environment and accessing college facilities and services, which can lead to improved success rates for at-risk students (Hughes *et al.* 2006).

By having college courses serve as the capstone of high school coursework as well as a transition to the next step, Ramp-Up projects are uniquely placed to provide a direct way to get feedback on and improve the alignment of college-preparatory course sequences with college courses.

5. Provisions for High-Quality Instruction and Coursework

Mechanisms are in place to monitor and assess the quality of courses offered and the effectiveness of the program.

Ramp-Up practices must be academically rigorous; they can never become "college lite." Because Ramp-Up programs include large numbers of middle- and low-achieving students, programs must have procedures to ensure that the scaffolded high school coursework prepares students for the academic rigors of college and

[12] The Core Principles identified by the Early College High School Initiative are particularly attentive to the need for strong partnerships between high schools and postsecondary institutions (Gates and JFF 2008).

that the vast majority of postsecondary courses are set at the level that earns transferable college credit at two- and four-year institutions. This includes ensuring that all courses are taught by qualified instructors; that the courses are rigorous by common standards; and that there are procedures in place monitoring quality and effectiveness. By having college courses serve as the capstone of high school coursework as well as a transition to the next step, Ramp-Up projects are uniquely placed to provide a direct way to get feedback on and improve the alignment of college-preparatory course sequences with college courses.

Assessment. NACEP standards require that every section of a course offered through a dual enrollment program be reviewed annually by faculty from that discipline. NACEP also specifies key assessments:

- The dual enrollment program conduct an annual program assessment and evaluation of its practices including at least course evaluations and follow-ups with graduates. Qualified evaluators/researchers conduct and analyze evaluations and assessments.
- The dual enrollment program conducts, every five years, a follow-up of graduates who are seniors in postsecondary education.

Beyond these minimum quality assessment procedures, exemplary Ramp-Up programs require that high school teachers and college faculty meet regularly to improve curriculum development, alignment and delivery of instruction, and provision of support services. For these discussions to be fruitful, it is important that state K-12 and college data systems be able to provide information at the local and statewide levels about current and former concurrent enrollment students, including such metrics as the percentage of high school students completing college courses in English and mathematics, and

Examples of Quality Control in California

Interviews with administrators and teachers associated with Early College Schools in California indicated that quality control practices often led to increased interaction between sectors.

According to a CSU dean, his CSU campus, in partnering with an Early College School, required that the CSU campus be responsible for certifying faculty; determining the level of preparation that students need for each college-level course; determining the release units faculty members receive for their work as departmental liaisons (to approve syllabi, methods for grading, and construction of exams and assignments); and providing the final review of grades.

According to the president of a private postsecondary institution, his institution uses the following quality control mechanisms for curricula and instruction associated with Early College School: "There is a faculty liaison who works with the high school. Syllabi are submitted [using a template developed by the postsecondary institution]. And then they are mentored by a faculty member here in terms of the particular course that they are teaching and any concerns about what needs to be covered in the syllabus."

changes in the percentage of students requiring remediation. From a state-level perspective, Ramp-Up programs are provided with information through state databases and analyzed as part of the state's accountability efforts.

Teaching and learning. NACEP's standards for instruction state that instructors teaching college or university courses through dual enrollment must meet the academic requirements for faculty and instructors teaching in postsecondary institutions as stipulated by the respective academic departments. While both secondary and postsecondary faculty can teach dual enrollment courses, there are differences in certification for the different levels. For academic disciplines and many areas of Career and Technical Education (CTE), community college instructors must have a master's degree in their subject area. It is important that high school teachers who wish to serve as adjuncts meet the same criteria. At the same time, it is important that college instructors collaborate with high school teachers to better understand appropriate pedagogies for teaching younger students.

College courses that are part of dual enrollment programs need to involve the same measures of student competency as other college courses, including requiring the same readings, assignments, and examinations.

6. Secondary and Postsecondary Alignment

Partnerships between high schools and colleges clearly define the roles of the respective institutions through memorandums of understanding and ongoing collaboration.

Ramp-Up programs provide a framework within which secondary and postsecondary institutions, along with other community partners, work across institutional divides to improve the college preparation of high school students. This dependence on partnerships requires the institutions to clearly define their roles—including access to college courses, facilities, and support services—through memoranda of understanding (which can be modeled at the state level). It also requires ongoing discussions among dedicated high school teachers, college faculty, and support personnel around planning, implementation, and sustaining Ramp-Up to College, to ensure that coursework, instructional practices, and expectations are linked. When this linkage is not present, poor results will be apparent in the success rates of students in both taking and passing college-level courses.

Ramp-Up practices are created and sustained effectively not in isolation but through on-the-ground collaborations among local education agencies, higher education institutions, and communities—with the guidance of supportive state policy. Inherent in those activities is both the challenge and opportunity of Ramp-Up practices: to align institutions around the needs of students in order to improve college participation and completion.

III. THE POTENTIAL IMPACTS OF RAMP-UP PRACTICES

In 2005-06, approximately 115,000 high school students—about 6 percent of the state's public high school students—were enrolled in dual coursework with the California Community Colleges (Golann and Hughes 2008).[13] Based on the experience and results of existing comprehensive dual enrollment programs in California and nationwide, what is the promise of Ramp-Up practices for California? These programs have been shown to provide a range of benefits:

- **A motivational force for students** who do not see themselves as traditionally college-bound (ECS 2001; Krueger 2006; Lieberman 2004; Hoffman, Vargas and Santos 2008).
- **Smoother and more successful transitions** to postsecondary education (Hughes et al. 2006).
- **Improved college readiness** to students from a range of academic backgrounds by increasing the rigor of a sequence of courses or pathways leading up to dual enrollment courses (NACEP 2002; Hoffman, Vargas and Santos 2008).
- **Increased access to college coursework and credit** for students from a range of academic backgrounds (NACEP 2002; Hoffman, Vargas and Santos 2008).
- **A way for students and their families to save money** on college costs (NACEP 2002; Hoffman, Vargas and Santos 2008; Palaich et al. 2006; ECS 2001).
- **A coordinated approach** for assessing high school students' eligibility for college courses through multiple measures (NACEP 2002; Hoffman, Vargas and Santos 2008).
- **On-the-ground partnerships** between high schools and postsecondary institutions focused on improving student transitions and success (NACEP 2002; Hoffman, Vargas and Santos 2008; ECS 2001).

Interviews with staff and teachers of Early College Schools in California confirmed most of these findings. For example, several people described the increased motivation of high school students taking college classes. A principal at a rural high school said, "Our third-year students definitely have a more outward vision. They don't feel like high school students anymore." A high school Spanish teacher said, "An advantage that I see with the students with whom I work, they're really hungry to do challenging work." Other teachers described the effect of the dual enrollment offerings on the senior year of high school, making the senior year more "relevant" and challenging

[13] Of the high school students participating in dual enrollment in 2005-06, about 29,000 enrolled in Career and Technical Education (CTE) courses.

for students. A principal at an alternative high school emphasized the transformation of her high school as a whole:

> It's a college immersion model … that's very powerful. You're not just changing the building on the students. They are becoming college students.
>
> The impact this had on our campus climate is that 12 students [taking dual enrollment] has turned into 120… My first few months I was here, it was like, "Why do I have to take this class? This is hard." To now it is, "How do I get enrolled in this college class?" Because they are beginning to see the benefits of it.

Similarly, a community college leader described the impact on remediation rates for the college: "Since we put the rigorous [dual enrollment] program into place, we've had stunning improvements… We have a 244 percent increase in students placing into college-degree-applicable math and 227 [percent increase] in students placing into Freshman Comp."[14]

In terms of dual enrollment generally, college credits earned while in high school reduce the time-to-degree of postsecondary education and increase the likelihood of graduation (U.S. Dept. of Education 2004a). In addition, researchers at Columbia University's Community College Research Center examined the influence of dual enrollment participation on Career and Technical Education (CTE) and non-CTE students in Florida, and on CTE students in New York. In Florida, dual enrollment was positively related to the following outcomes:

- earning a high school diploma,
- postsecondary enrollment,
- full-time postsecondary enrollment,
- persistence into the second semester in postsecondary education,
- higher grade point average one year after high school graduation,
- persistence in postsecondary education two years after high school graduation, and
- more credits earned three years after high school graduation.

In addition, the relationship between dual enrollment and postsecondary outcomes was particularly strong for males and low-income students. In New York, dual enrollment was positively related to the pursuit of a bachelor's degree, higher first-semester grade point average in postsecondary education, and more credits earned three and a half years after high school graduation (Karp *et al.* 2007).

In terms of specific results for Ramp-Up programs, American Institutes for Research and SRI International reached the following conclusions in a nationwide study of the Early College High School Initiative from 2003 to 2007:

[14] At this community college, "college-degree-applicable math" refers to courses that count toward an associate's degree, which are one level below courses that count toward a bachelor's degree.

- Students in Early College Schools (ECSs), on average, scored proficient on their state assessments at higher rates than students at other high schools in the surrounding districts;
- On average, 85 percent or more of students in ECSs progress to the next grade rather than dropping out or being retained; and
- On average, ECSs had on-time graduation rates higher than their geographic districts and states.

Data from the Middle College National Consortium (13 MCHSs serving 3,866 students) show the following for 2006-07:

- 63 percent of all students were enrolled in a college course or courses;
- 79 percent of 12th graders were enrolled in a college course or courses;
- 12th graders earned 31 credits on average;
- There was a 92 percent pass rate in college courses; and
- 56 percent of students earned an A or B in the college courses. (Kim and Barnett 2008)

Potential Cost Savings to the State

One key indication of the redundancies and financial inefficiencies in California's education systems is the percentage of students who matriculate directly from high school to postsecondary education and need to take remediation classes (also known as basic skills instruction). While postsecondary education will always need to provide some remediation courses, high college remediation enrollments among students who come directly from California high schools represent an expensive method of providing basic education to large segments of the population—and serves as one indicator of the extent to which the state's high school students are not being adequately prepared for college.

More than half of the first-year students who enter the California State University and far more than half of those who enter the California Community Colleges need at least one basic skills or remedial education course (CSU 2008; CCC Academic Senate 2003, p. 2). Moreover, there is not a strong relationship between completing a basic skills class in a community college and completing a transfer-level course. In 2005, just one-quarter of the students who first enrolled in a reading fundamentals course in community college in California ever went on to enroll in a transfer-level English course, while only 10 percent of students who started in a basic math course enrolled in a transfer-level math course (Moore and Shulock 2007). According to the director of the Carnegie Foundation's project, Strengthening Pre-Collegiate Education in Community Colleges, "Basic skills courses are not seen as on the edges anymore. They are not for a select few. They are front and center at every community college in California" (Asera 2008).

This high level of basic skills coursetaking in postsecondary education is expensive to the state and to students. By providing high school students with aligned, scaffolded coursework that leads to and includes college courses, Ramp-Up programs can save money to the extent that:

- More students become college ready, thereby reducing costs of remediation and time-to-degree.
- Fewer students drop out before completing their degrees because they already have an entryway to, and experience with, college.
- Students complete transferable college credit that can be applied toward a degree.

At the same time that the outcomes of Ramp-Up programs can save money, there are also additional upfront and ongoing investments for these programs, including the costs of developing better-aligned coursework, providing the associated support systems that the targeted student populations need, and offering dual enrollment tuition-free. These additional investments have been estimated for Early College Schools—one Ramp-Up approach—and the findings suggest that the costs of these schools range from 10 to 20 percent above the average daily attendance (ADA) rate of home district high schools. These estimates are based on national and California-specific research of Early College Schools and their surrounding districts. (*See Appendix V for additional information on estimates and sources.*)

Given these additional outlays, does the amount of money saved through Ramp-Up programs justify the added costs? Estimates developed for Jobs for the Future by Augenblick, Palaich and Associates, a national education finance firm, suggest that the answer is yes. Using costs of 20 percent higher than ADA (the expensive end of the average range), early outcomes from Early College Schools suggest that Californians could save as much as $1,662 per student who completes an associate's degree and $9,178 per student who completes a bachelor's degree. At these rates, for every ten Early College Schools serving 300 students, the state would be projected to save $5 million in costs to the associate's degree.

These cost-to-degree estimates are based on Early College Schools continuing to serve a diverse, low-income student population—a population that is overrepresented in remedial education courses. The estimates are also based on the following average outcomes of existing Early College Schools:

- Students graduate with an average of 20 college credits, at least half of which are transferable toward a degree.[15]
- Students complete the high school courses required for UC/CSU admission at a rate 13 percent higher than the average state rate.

[15] In order to arrive at conservative estimates, the calculations assume that half of the college credits earned are for Introduction to College and other classes that may not be transferable toward a degree.

Having begun in 2002, Early College Schools are young, and these cost estimates will be accurate to the extent that the above early outcomes are maintained or surpassed as these types of programs mature. (*See Appendix V for additional information about cost-to-degree-completion calculations and sources.*)

Based on these estimates, Ramp-Up programs appear to offer a cost-effective approach to preparing middle- and low-achieving students for college, particularly over the long term.[16] The state stands to gain the greatest benefit by having Ramp-Up programs target students from groups that are typically underprepared for college because their lack of success currently adds much to the existing overall cost of per-student degree completion. In addition, these students stand to gain much in terms of additional earning power represented by higher levels of educational achievement, which in turn would favorably affect state tax revenues.

[16] As identified in the recommendations, further research is needed to examine the extent to which existing comprehensive dual enrollment programs help high school students avoid remediation classes in college—research which may reveal additional savings to the state.

IV. CALIFORNIA'S UNFRIENDLY POLICY ENVIRONMENT FOR RAMP-UP PRACTICES

While some states have adopted a policy framework for college readiness that supports Ramp-Up approaches, California has not. The state has some favorable preconditions that have created opportunities for the initiation of several local programs, but these programs have been more the product of entrepreneurial district, school, and college leadership than of a state vision or strategy. In fact, many of California's policies serve as inhibitors to using Ramp-Up practices to help underserved high school students get a jump start on their college education.

Overall, California's current policies cannot grow or sustain Ramp-Up approaches at any meaningful scale because they leave programs and their students vulnerable to idiosyncratic implementation, uneven quality, and *ad hoc* cutbacks or closure. Consequently, there are few incentives for creating new pathways from grades 9 to 14 that use dual enrollment to put more low-income and first-generation college students on the path to a degree or credential.

Some State Policies Support Ramp-Up Practices

California has a number of policy conditions that have been conducive to the development of Ramp-Up programs. Most importantly, community college fees are relatively low, and the state reimburses these colleges for the enrollment of dual enrollees on the same FTE basis as a regular college student. Community colleges can also grant Board of Governors fee waivers to income-eligible high school students who take college courses. In addition, some outside grants, primarily from the Bill & Melinda Gates Foundation, have helped to support the development of Early College Schools—one Ramp-Up model. These factors have put paying for college course costs within reach of some high school-community college partnerships.

It is no coincidence that, in California, start-ups that use Ramp-Up practices have largely been created in cooperation with community colleges. For example, of the 39 Early College Schools in the state, 35 involve community colleges. Although two CSU and two UC campuses have started such schools, they have little or no encouragement to do so because state policy provides no mechanism to cover the cost of college courses for low-income students. In addition, there are many more community colleges that could be involved but are not.

State Vision for College Readiness Lacking

California's policy approach to dual enrollment has largely been focused on guarding against the abuses of finance policies by some in the past, rather than on a vision of college readiness for the future. It has not been about establishing opportunities for a broad section of the high school population to gain early college experiences that will improve their chances of attending and succeeding in higher education. The lack of a statewide vision for the role of dual enrollment in college readiness has had a chilling effect on existing and prospective Ramp-Up programs and has made them vulnerable to short-term, *ad hoc* decision-making and changing conditions at the local level. Ironically, the guardedness and incoherence of state policies overall may represent a lost opportunity to expand cost-effective strategies to improve college readiness.

The current policy climate for dual enrollment can partly be explained by a 2002 incident, when *The Orange County Register* began investigating allegations of improperly claimed state funds for high school students enrolled in dual enrollment courses. From that and subsequent investigations, Californians learned that a small number of community colleges were taking advantage of open enrollment policies by enrolling high school students in college courses without the students' and parents' full understanding, enrolling them in physical education courses for college credit, and/or receiving state funding for the students at the same time that high schools were receiving full funding for the same students (CCC Chancellor's Office 2003).

These findings led to further investigations, audits, sanctions, and changes in the California Ed Code, as well as creating an environment in which the California Finance Department has become very cautious of funding dual enrollment programs. Existing policies that carefully differentiated high school and college services became ensconced, and new policies were created to reinforce them.

These policies make sense in preventing abuses of programs that were not designed to advance state education goals. But they are problematic—and counterproductive—in that they create barriers for Ramp-Up programs that rely on high schools and colleges to pool and share resources in new ways to make the transition between them seamless. Examples include the following:

Minimum daily attendance in high school. California established minimum amounts of time that dually enrolled students need to attend high school for their school districts to receive state funding based on average daily attendance (ADA). Each dually enrolled student must attend high school at least four hours (240 minutes) per day in order for the school districts to claim full funding for that student. School districts can claim 75% funding for dually enrolled 11th and 12th graders who attend high school for at least three

hours (180 minutes) daily and a prorated amount for 180-240 minutes of attendance (Education Code 46146).

Barrier for students and schools: While this requirement was meant to prevent high schools and colleges from receiving full funding based both on ADA in high schools and full-time-equivalent (FTE) enrollment in college, the minimum attendance levels are so inflexible that they 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. In addition, the attendance requirement limits the ways that Ramp-Up programs use time, since it does not count support activities, such as counseling or tutoring, towards high schools' instructional time.

Recognizing that dual enrollment represents an upfront investment in improving preparation for college and degree completion rates, other states such as Texas and North Carolina hold secondary and postsecondary institutions harmless or almost harmless for serving dual enrollees—providing either full payment or a high percentage of payment for ADA and also FTE costs for colleges. The rationale is that by providing incentives for the creation of Ramp-Up approaches, more students will be ready for college and the state will save money in the long run.

"The state … will let a student take Algebra I four times through high school: in 9th, 10th, 11th, and 12th grades. They'll fund that. They'll fund all the remedial education in the world."

—High School Principal

According to interviews with Early College teachers and staff, this requirement presented challenges for almost every high school included in the research; some high schools only allowed students to take college courses before and after the regular school day so that attendance in those courses would not interfere with claiming ADA. Teachers indicated that the requirements in turn place hardships on students having to arrive early and stay late in school, particularly those who have to work outside of school. Several interviewees emphasized that the state policy in this area seems shortsighted. According to a high school principal in South Central Los Angeles, "The State of California will let a student take Algebra I four times through high school: in 9th, 10th, 11th, and 12th grades. They'll fund that. They'll fund all the remedial education in the world." In contrast, the state currently will not fund high schools for full ADA based on the wide array of support services they provide for underrepresented students actually taking college credit-bearing classes.

Dual enrollment students receive low priority during registration. The state requires that high school students who are dually enrolled receive low priority for college courses during registration, so that they will not displace other community college students (Education Code 76001).

> ***Barrier for students and schools:*** Because of the challenges that dual enrollment students face in trying to coordinate high school and community college schedules, they are not able to attend a wide variety of section times.
>
> Moreover, when community college courses are overenrolled, this provision makes it very difficult for dually enrolled high school students to gain seats in the college courses they need. The campuses operate in an environment in which California's finance system provides few incentives for higher education to participate when they are over-enrolled. When campus enrollment is below capacity, many interviewees indicated, the restrictions are more likely to be waived by the college campus. When campuses are facing enrollment surges, administrators are in many cases less likely to waive the restrictions. While this is a logical response from administrators who see their primary role as accommodating "regular" college students, it makes it difficult to create and sustain quality Ramp-Up programs over time.

Limit in college enrollment of high school students during summer. The state caps dual enrollment in summer sessions at the California Community Colleges at 5 percent of any grade level (Education Code 4880). An exemption that has been helpful for Ramp-Up programs is for students to take Intersegmental General Education Transfer Curriculum (IGETC) or CSU general education breadth courses in the summer—that is, lower-division general education requirements that are transferable to most UC and CSU campuses.[17] However, this exemption expired on January 1, 2009.

> ***Barrier for schools and students:*** This cap on dual enrollment during summer sessions prevents Ramp-Up programs from using year-round schooling and other programming in the summer to prepare large numbers of underserved students for college through dual enrollment. It prevents dual enrollment students from seeking education year-round.[18]

Given the financial and other policy barriers in California, the Ramp-Up programs that have been developed in the state have done so through establishing waivers and exceptions that have been time-consuming, labor-intensive, short-term solutions. While the policy landscape has been shaped by legitimate concerns about past

[17] The exemption does not apply, however, to certain occupational courses or to some older students who have not passed the California High School Exit Examination. See parts (B) and (C) of this section of Education Code for more information.

[18] A.B. 78, introduced in the current legislative session by California Assembly member Anthony Portantino, would eliminate this 5 percent cap on summer enrollment.

abuses of *ad hoc* dual enrollment practices, it threatens the sustainability of some of the promising, but still nascent and fragile Ramp-Up approaches that have started in the state. Furthermore, the lack of a clear vision for dual enrollment as a college readiness strategy for more students precludes the expansion of existing programs—whether they be Early College Schools or other models that employ similar uses of college courses and student supports. This environment is more disabling than enabling: high schools and community colleges have notable disincentives to participate, and neither the CSU nor UC system has a clear role or stake.

The Current Landscape in Innovative States

California lies in stark contrast to several states that are intentionally creating policy environments to support Ramp-Up approaches targeting students with low educational attainment. A prime example is North Carolina, which is positioned to reach a substantial number of students statewide as a result of strategic investments in policies and pathways that use early college experiences to meet state education goals.

North Carolina recognizes that its economy is transforming rapidly. As the traditional economic engines of textiles and tobacco are waning, other enterprises, such as R&D-based business and banking, are taking their place. Increasingly, getting a job with family-sustaining wages requires postsecondary education or training. The state's education system, however, has not been producing a sufficiently educated workforce.

One way the state has tried to meet this challenge is by bolstering and redesigning its high schools. A key strategy in high school redesign has been to encourage college-high school partnerships that promote early college coursetaking by high school students. The most visible example is the state's support of 60 "Learn and Earn" schools since 2004—high schools designed so that students can graduate high school and earn up to two years of college credit or an associate's degree within five years. The state's goal is to start more than 70 such schools, all of which use some dual enrollment as part of a blended course of study in grades 9 to 14.

State support for these schools comes in the form of start-up funding, the provision of technical assistance, and policy. Start-up funding ensures that schools engage staff in professional development, obtain assistance from instructional coaches, participate in evaluation activities, and hire staff who work with the college partner and high school to design and coordinate standards, curriculum, instruction, and guidance systems. With public and private funding, the state has established a school development organization to provide technical assistance that promotes high-quality, statewide implementation of 150 local high school redesign efforts, including Learn and Earn.

North Carolina's policies are also supportive. The Innovative Education Initiatives Act of 2003 authorized support for cooperative education programming between high schools and colleges, including Learn and Earn and similar efforts. The Act includes provisions to streamline implementation of these programs, including waivers from restrictive previous dual enrollment policies.

Although these efforts are relatively new, they are showing promise. A 2008 report to the North Carolina Legislature examining the first 33 Learn and Earn schools found:

- They are serving a population demographically reflective of their home districts.
- In comparison to their home districts, more of them met "expected growth" targets (82 percent vs. 77 percent) and reached "high growth" targets (52 percent vs. 34 percent) according to the state's accountability system.
- All but two of the first 12 Learn and Earn schools for which promotion data were available reported 9th grade promotion rates higher than the statewide 9th-grade rate of 85 percent. And all 12 of the schools reported lower 9th-grade dropout rates than the statewide average.

In addition, a pilot study in which students were randomly assigned to a Learn and Earn school or their district high school revealed that the Early College School raised rates of rigorous math course taking and success for all students, including low-income students. This pilot is part of a federally funded study that will eventually include a substantial number of Learn and Earn schools (NC State Board of Education 2008).

North Carolina is not alone in developing policies to support college coursetaking for broad populations of high school students. In recent years, the Texas Legislature provided funding to help districts implement a policy that all students are given the opportunity to earn at least 12 college credits by high school graduation. Additionally, since 2003, the Texas High School Project—a partnership between the state and a variety of private organizations—has initiated more than 30 Early College Schools. In 2008, the Texas High School Completion and Success Initiative Council, a statewide committee established by the Legislature, confirmed these schools as a strategic priority for increasing college-readiness and success rates across the state (Texas High School Completion and Success Initiative Council 2008). Other states that are trying to use similar strategies include Ohio, Georgia, and Utah.[19]

[19] For more information, see Hoffman, Vargas and Santos 2008.

V. RECOMMENDATIONS FOR CALIFORNIA

California currently faces the convergence of several major issues affecting educational opportunity and the future of its economy: severe state budget constraints, a substantial increase of low-achieving students in the education pipeline, an increasingly diverse population (*see sidebar*), and the need to grow the state's knowledge-based industries, which rely on a highly skilled workforce. During this pivotal time, the state cannot afford to overlook innovative opportunities to increase the educational attainment of its young people—particularly those opportunities that can lower the cost-to-college-completion by reducing the need for remediation and reducing time-to-degree.

California's Equity Challenges

The students who are most adversely affected by poor preparation for college are those who are Latino, black, Native American, or low-income. According to the most recent data:

- Seventy-seven percent of white, non-Latino students passed the math section of the California High School Exit Exam in 2006, compared with 49 percent of Latinos and 40 percent of African Americans (CDE 2006).
- Estimates of high school drop-out rates also point to large disparities among ethnic groups. For example, a recent study found that 84 percent of Asian students graduate from high school in California, compared with 78 percent of white, 60 percent of Latino, 57 percent of black, and 52 percent of Native American students (EPE Research Center 2008).
- Nearly half of California's population of is black or Latino, but only one quarter of undergraduate degrees and certificates are awarded to black or Latino students. Black and Latino students are less likely to be enrolled in college preparatory courses as well (Moore and Shulock 2007).

There are many college readiness initiatives currently under way in California (*see Appendix II*), and there are many pressing state policy needs for improving educational achievement for Californians. Ramp-Up to College, because it reaches a broad student population, offers California an approach that supports other strategies for college readiness and success. Recently, for example, the three public higher education sectors announced a joint effort to improve college opportunity by boosting transfer rates from community colleges to four-year institutions in the state (UC 2009). Ramp-Up practices that align core academic pathways between high schools and colleges can assist in boosting transfer rates by preparing broader populations of high school students for college.

As another example, the Early Assessment Program (EAP), which was developed originally to provide high school students with an assessment in 11th grade that indicates

their readiness for the CSU system, has been expanded to include the California Community Colleges (CCCs) through passage of SB 946. A useful link between the EAP and Ramp-Up practices would be to use scaffolded and supported academic pathways as a way to prepare more students for college, and to have the EAP provide diagnostic information to students and their teachers about student proficiency levels and needs—which in turn could help to identify appropriate coursework for the students whether at the high school or college levels.

Building from these kinds of examples, the recommendations that follow seek to transform California from a state that inhibits students from getting a jump start on their college education to a state that uses Ramp-Up practices as key components in its overall effort to expand postsecondary opportunity. The recommendations fall into two overall areas and build upon work already being done in the state:

1. **Open doors to college opportunity and success** by encouraging Ramp-Up approaches to thrive. California's current policies and practices often prevent Ramp-Up programs from reaching meaningful scale.
2. **Create a statewide vision and strategy for college readiness** that makes California a leader in encouraging practices that improve student preparation for postsecondary education and training, particularly for populations that have traditionally been underrepresented in college.

Given today's financial climate, the recommendations include both short-term steps that the state can take now to lay the groundwork for a comprehensive plan that includes Ramp-Up practices and longer-term steps that California can take once its fiscal outlook stabilizes.

1. Open Doors to College Opportunity and Success

California can begin by protecting and supporting Ramp-Up practices that have already been implemented by existing high school-college partnerships, and by encouraging similar programs to develop and thrive. (*See Appendix VI for a list of key principles for state policy in this area.*) Generally, this includes providing such programs with flexibility in the context of inhibitive statewide policies. In exchange, the state can require increased performance accountability.

Short-term recommendations:[20]

- Extend the exemption of the 5 percent summer school enrollment cap that recently expired, so that students in Ramp-Up programs can enroll in college courses year-round.[21]

[20] The final draft of these recommendations will identify what parties should be responsible for each one.

[21] A.B. 78 introduced by California Assembly member Anthony Portantino would eliminate this 5 percent cap on summer enrollment.

- Exempt students participating in Ramp-Up projects from the current credit-limit cap of 11 college units per semester.
- Allow students in high schools that offer a diploma and an associate's degree within five years to apply for transfer to the UC or CSU if they are projected to have their associate's degree before matriculation. Currently, they are required to have their associate's degree before they apply.
- Initiate a coordinated information campaign to ensure that all high schools and their students, regardless of academic background, know about Ramp-Up options and other college readiness options.
- Issue clarifying statements about statewide support for Ramp-Up practices and other college readiness practices. For example, the Chancellor's Office of the CCC should issue a statement to all the community colleges, informing them that the 11-unit cap for dually enrolled students does not apply to those in Ramp-Up programs.

Long-term recommendations:

- Hold harmless—or almost harmless—schools that participate in Ramp-Up programs that effectively serve broad populations of students and that align coursework building toward college credits. This would require a waiver from the state's minimum daily attendance requirement and could be connected to performance accountability—for example, increased student outcomes and savings in cost-to-degree-completion that outweigh the upfront costs to the state.
- Allow UC and CSU to claim FTE apportionment for participation in Ramp-Up partnerships, following the financing rules used for the CCCs.

2. Create a Statewide Vision and Strategy for College Readiness

California can do much more to create state leadership and a clear vision for college readiness that is student-centered and that leverages existing Ramp-Up practices as well as other college readiness approaches in the state—including multiple pathways and ConnectEd, the Early Assessment Program, and other projects. How can California encourage K-12, CCC, UC, and CSU to work together so that every student in the state is informed about and has early access to supported sequences of aligned secondary school coursework that lead to college courses by the 12th grade—courses that are predictive of postsecondary completion?

Short-term recommendations:

- Create a joint council (including UC, CSU, CCC, California Department of Education and other relevant entities), or reframe the purpose of an existing council, to provide

leadership for developing a statewide vision and coordinating a statewide infrastructure for college readiness.

- Develop a statewide agenda for college readiness that is student-centered and that leverages Ramp-Up practices as well as other promising and aligned approaches. This can be a primary charge of the joint council, but the state should not wait for the creation of a joint council to begin the following agenda-setting activities:
  - Gather and share information about promising practices in the state, including about the costs and cost-savings of the programs, and the effects of program participation on remediation rates.
  - Develop a statewide plan for expanding, leveraging, and aligning appropriate Ramp-Up approaches and other related college-readiness state efforts.
  - Establish policies to ensure quality and performance feedback mechanisms, including the possible need for certification or accreditation of Ramp-Up programs.

Long-term recommendations

- Create clear roles and appropriate funding for K-12, CCC, CSU, and UC to participate in Ramp-Up approaches. Current estimates for Early College Schools suggest that the costs are about 10 to 20 percent higher than traditional high schools, but that this investment is more than recouped in savings in cost-to-degree. (*See Section III of this paper.*)
- Invest in the start-up of effective college readiness approaches such as Ramp-Up, as well as strong technical assistance and professional development.
- Ensure that the state data system flags students participating in Ramp-Up and similar programs, and can evaluate outcomes.
- Enable qualified students in Ramp-Up programs to access Cal Grants under appropriate conditions, such as those students who take 50 percent or more of their coursework at the college level.
- Build a statewide system to create more qualified teachers to deliver these courses, including professional development.

VI. CONCLUSION

California's policy approach to dual enrollment represents a realistic and practical reaction to past abuses in *ad hoc* dual enrollment practices. The state's regulatory framework appears to have succeeded in preventing similar inappropriate uses of dual enrollment. Since the creation of the state's regulatory framework, however, a new vision for comprehensive dual enrollment—or Ramp-Up to College—has emerged, and these programs appear to be showing positive results in improving college readiness for broad student populations that have historically been underrepresented in college enrollment and completion. While there are additional costs—for example, costs associated with aligning curriculum between the segments, offering student supports, and providing professional development of teachers—the programs appear to be showing promise in decreasing overall costs to college completion, primarily due to lower remediation rates and faster time-to-degree after high school graduation.

In light of these developments, California's policy approach to dual enrollment needs to be overhauled—so the state can take advantage of Ramp-Up practices that provide diverse high school student populations with crucial supports:

- information and motivation to succeed,
- exposure to college expectations and curriculum, and
- tangible rewards for success (college credit and decreased tuition expenses).

Considering the historical divisions between K-12 and postsecondary education, California can benefit from Ramp-Up practices that give high schools and postsecondary institutions incentives to form strong on-the-ground partnerships focused on improving student transitions and success. For example, all high school students need access to scaffolded, aligned coursework that builds toward postsecondary education and training. As a liaison for an ECS in California stated, Ramp-Up approaches "can be a catalyst or leverage point to get at a host of issues, such as curriculum alignment and teacher expectations, and … can create opportunities for students."

Ramp-Up approaches "can be a catalyst or leverage point to get at a host of issues, such as curriculum alignment and teacher expectations, and can create opportunities for students."

—A liaison for an Early College School in California

Finally, Ramp-Up practices offer California a strategy for complementing and enhancing the work that is already being done throughout the state to improve

college readiness. Ramp-Up to College is not a magic bullet, but rather one piece of a larger state strategy to improve high school to postsecondary transitions, particularly for traditionally underserved students. Mechanisms to ensure high-quality instruction of dually enrolled students need to be enhanced at the state level, and accountability structures need to ensure that student success in college courses serves as feedback for high school preparatory sequences. Given the potential impacts of Ramp-Up approaches for students, however, it is time for the state to develop a new vision and policies for college readiness, so that Californians can benefit from improved college preparation and success for broader student populations.

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Appendix I

Projections of a Poorly Trained Workforce

Many of the problems facing California education are familiar and cyclical. The number of young adults in the state is projected to rise dramatically—by about 1.5 million between 2000 and 2015; state funding is becoming increasingly constrained; costs for education are growing; and access to postsecondary education is being limited (Shulock and Moore, 2004). These general conditions could be used to describe many of California's recent economic downturns, and they certainly apply now, during one of the state's most serious financial crises. Shulock and Moore note that, "[c]ompared to other states, we observe in California a lack of understanding or awareness of the extent of performance shortfalls, and most certainly a lack of urgency… We do little or nothing to project the dire consequences to the state of failing to educate the tidal wave of students that is upon us, to say nothing or those who are not even completing high school or pursuing education beyond high school" (p. 36).

According to a recent report from the Public Policy Institute of California:

> If past trends in worker education within and across industries and occupations were to continue, the demand for college-educated workers in 2025 would be equivalent to 41 percent of California workers… Workers who are currently ages 50 to 64 have the highest levels of college education and these workers will reach retirement age by 2025. Furthermore, the share of Latinos in the working-age population is increasing, and this group has relatively low levels of educational attainment… In sum, our analysis shows that the supply of college-educated workers will not meet projected demand… Although it would take unprecedented increases in the number of young adults earning bachelor's degrees to fill the gap, California should look for ways to reduce the size of the gap. Effective reforms and investments today will improve opportunities for California's workers and create a workforce that will help fuel future economic growth (Reed 2008).

Appendix II

Projects to Improve College Readiness in California

College readiness activities are burgeoning in California, yet there is no agreement on a statewide policy infrastructure to connect or support college readiness statewide. The following programs, schools, initiatives, and organizations are not a comprehensive list, but are indicative of the level of activity so far in seeking to build meaningful bridges between secondary and postsecondary institutions.[22]

The American Diploma Project. California is the 31st state to join Achieve's American Diploma Project. The objectives of ADP:

- Align high school standards and assessments with the knowledge and skills required for success post-high school.
- Require all high school graduates to take rigorous courses that prepare them for life post-high school.
- Reform assessment systems so that the tests students take in high school also can serve as readiness tests for postsecondary education and the workforce.
- Hold high schools accountable for graduating students who are ready for postsecondary education or work, and hold colleges and universities accountable for their students' success. (www.achieve.org)

The Early Assessment Program (EAP). In 2001, the CSU worked with the California Department of Education to augment the 11th-grade California Standards Tests in English and mathematics to add items that indicate readiness for the CSU system. Students receive the results the summer before their senior year so that they can use their final year in high school to improve their readiness for the CSU. The CSU then developed new 12th-grade courses, student supports, professional development, and in-service training, all aligned with the college readiness expectations (Spence 2000). In 2008, the Governor signed SB 946 to expand the EAP to include the CCCs.

Save Me a Spot in College. In 2008, the Governor signed SB 890, or the Save Me a Spot in College bill, which established the Early Commitment to College program, a voluntary program for students, school districts, and postsecondary institutions designed to increase college readiness for low-income K-12 students. Participating districts will have to provide activities to increase high school completion rates and motivate students to take

[22] Of the programs listed that use dual enrollment, the activities range from the provision of single courses to the comprehensive Ramp-Up approach.

rigorous college preparatory or career and technical education courses. Participating students commit to meeting all high school graduation requirements, enroll in college preparatory or CTE coursework, and apply for financial aid (http://gov.ca.gov/press-release/10659/).

Statewide P-16 Council. In 2004, Superintendent Jack O'Connell established California's P-16 Council. The main goals are to: improve student achievement throughout P-16 and eliminate the achievement gap; link all education levels to create a comprehensive, seamless system; ensure that all students have access to qualified and caring teachers, and increase public awareness of the link between a healthy economy and an educated citizenry (http://www.cde.ca.gov/eo/in/pc/).

Tech Prep. Tech Prep is funded by the federal government and seeks to improve the alignment between high school and two-year postsecondary programs in Career Technical Education (CTE). It utilizes a 2+2 sequence that connects two years of high school coursework in a particular CTE area with two years of postsecondary work, culminating in an associate's degree or certificate. There are 80 Tech Prep consortia in California and they include each of the CCCs and 1,253 high schools. Approximately 350,000 students were served in 2005-06. As Golann and Hughes (2008) write, "In some cases, students can earn college credit retroactively, or 'in escrow,' for their articulated high school courses if they go on to complete one or more specified courses at the partner college. However some research has found that few students actually claim their college credits or continue on to the college program. For these reasons, several Tech Prep programs have shifted to a credit by examination model or a dual enrollment model" (p. 5).

Regional Occupational Centers and Programs (ROCPS). ROCPS were established in 1967 to provide CTE training to high school students and adults. Most ROCPS provide CTE courses at high schools or business facilities. There are 74 ROCPS in California and, in 2005-06, they served approximately 375,000 students. Funding for ROCPS is through Proposition 98 based on students' average daily attendance. In 2005-06, more than 630 ROCP courses were eligible for college credit. In the future, ROCPS will likely play a larger role in career and college readiness for high school students because Assembly Bill 2448 requires that (1) no more than 10 of the ADA be claimed for students who are not in grades 9-12 and (2) 90 percent of the courses offered at ROCPS be part of occupational sequences by 2010 (Golann and Hughes 2008).

California Partnership Academies (CPAs). CPAs were started in 1984 as a way to help at-risk students persist in, and graduate from, high school. There are 336 CPAs in 225 high schools in the state. They are usually school-within-a-school models that serve about 100 to 150 students per school in grades 10 to 12. CPAs are theme-based, use small learning

communities, integrate CTE with academics, and establish work-based and postsecondary partnerships. In 2004-05, approximately 20 percent of CPA juniors and seniors in 114 CPAs enrolled in college credit courses. Most of those credits are earned through capstone courses and not dual enrollment (Golann and Hughes 2008).

High School Reform Efforts. Many of the high school reform efforts are focusing on structural change, such as creating small schools or breaking large comprehensive schools into smaller units, as a way to provide greater personal connections for students. Small schools have limitation in terms of the types and numbers of courses offered. Dual enrollment offerings can help small schools increase the array of courses available to students. Some examples of high school reform efforts in California that are focusing on creating a (pre)collegiate environment for their students:

> Early College Schools (ECS) and Middle College High Schools (MCHSs). ECSs and MCHSs use similar models of intensive supports, connections with postsecondary education, and dual enrollment offerings to provide opportunities for underserved students to prepare for postsecondary education. Middle Colleges started at LaGuardia Community College in 1974 and Early Colleges started in 2002 under the leadership of the Bill & Melinda Gates Foundation. The major differences between the two models are that MCHSs are always located on a community college campus, while ECSs are not. In addition, ECSs offer their students the opportunity to earn an associate's degree and a high school diploma in five years or fewer, while this is not a major tenet of MCHSs. There are 13 MCHSs and 39 ECSs in California (Golann and Hughes 2008; the number of ECSs provided by Jobs for the Future).
>
> Alliance for College-Ready Public Schools. The Alliance for College-Ready Public Schools is a nonprofit charter management organization that runs a network of small public schools (grades 9-12 and 6-8) in historically underachieving, low-income, and overcrowded communities in Los Angeles. The main goal is for the schools to significantly outperform other public schools in preparing students to enter and succeed in postsecondary education (http://www.descom.org/testing/mission.html).
>
> Aspire Public Schools. Aspire is a nonprofit charter management organization. It focuses on offering small, multigrade classes; teachers who stay with the same cohort of students for multiple years; extended school days and years; and Saturday school. Its schools use a college preparatory curriculum that emphasizes interdisciplinary projects, individualized learning plans, and longer-than-average classes. (www.aspirepublicschools.org).

The Irvine Foundation's Concurrent Courses Initiative. In 2007, the James Irvine Foundation funded the Concurrent Courses Initiative: Pathways to College and Careers to build on the foundation's interest in multiple pathways (such as ConnectEd). The Initiative is funding eight partnerships that are using the grants to "strengthen college and careers pathways for students by developing, enhancing, and expanding supportive and challenging career-focused dual enrollment opportunities. The targeted population is comprised of low-income young people who are struggling academically or who are within populations historically underrepresented in higher education" (Golann and Hughes 2008, p.16).

A statewide focus on improving high schools. Improving California's high schools has been at the forefront of many of the state's reform initiatives in recent years. The Public School Accountability Act has been the main driver; out of that came the California Standards Tests and the High School Exit Exam. In 2005, through its High Performing High Schools Initiative, the California Department of Education (CDE) asked high schools to improve students' transitions from high school to postsecondary education and the workforce. As part of that initiative, the CDE proposed that several strategies be expanded, including the EAP, ECSs, career academies, integrated career pathways, regional occupational programs, and Tech Prep programs (www.cde.ca.gov).

Pre-college outreach programs (both private programs and those sponsored by the state/education tiers). The National College Access Program Directory, a resource created and maintained by the National College Access Network and the Pathways to College Network, lists 239 programs in California (www.collegeaccess.org).

Non-profit organizations:

ConnectEd: The California Center for College and Career identifies, supports and expands pathways that prepare students for college and career (www.connectedcalifornia.org). Ramp-Up practices are consistent with ConnectEd's focus on multiple pathways that connect high schools and postsecondary education.

The Campaign for College Opportunity focuses on ensuring that students will have access to postsecondary education in California, as stipulated by the Master Plan (www.collegecampaign.org).

The Education Trust-West focuses on closing the achievement gap and improving the academic achievement of all students at all levels, kindergarten through postsecondary education, in California (www2.edtrust.org/edtrust/etw).

CCC-to-four-year-university "dual enrollment." Community college students can enroll in credit-bearing courses at UC and CSU institutions. Students pay the same fees that they would to the CCC to take the course(s), and they earn CCC credit (not UC or CSU credit). In return, they get exposure to a four-year institution; they gain an understanding of the expectations and level of work required in a course at a four-year institution; and, if they pass the class, they get the satisfaction of knowing that they can succeed at a UC or CSU. The CCCs vary in terms of whether students are allowed to do this kind of dual enrollment and how many courses they can take. The instructor teaching the course must approve of each CCC student's registration (correspondence with Gail Kaufman, Director of UC Berkeley's School-University Partnerships, December 9, 2008).

Cal-PASS and the UC's Transcript Evaluation Service. Cal-PASS is not a program or a school that uses dual enrollment; it is an organization that collects and analyzes data that span the education systems, and bring together representatives from K-12 and postsecondary education to identify barriers and work together to find solutions (http://www.cal-pass.org/). Similarly, the UC's Transcript Evaluation Service includes data about students' a-g and postsecondary course taking (https://www.transcriptevaluationservice.com).

Appendix III

Federal Legislation for Dual Enrollment

In September 2008, U.S. Representatives Dale E. Kildee (D-MI), Rahm Emanuel (D-IL) and Senator Herb Kohl (D-WI) introduced a bill (H.R. 6926) to authorize the Secretary of Education to award grants to high school and postsecondary partnerships to establish dual enrollment programs and ECSs. The legislation was in line with Ramp-Up programs because it would have given priority to applicants: (1) that supported or established a dual enrollment program for a student body of which at least 40% was impoverished; and (2) from states that provide assistance to dual enrollment programs, such as defraying the costs of higher education. Other notable points of the proposed legislation included the following:

- Students would not be required to pay tuition or fees for postsecondary courses;
- The courses must be taught by faculty who meet the partner postsecondary institution's normal standards.
- Grants will be made to plan and implement statewide strategies to make dual enrollment programs more accessible to underrepresented students and to provide technical assistance to local dual enrollment programs; and
- Dual enrollment programs will be evaluated and best practices disseminated.

(http://www.govtrack.us/congress/bill.xpd?bill=h110-6926)

Appendix IV

About This Paper

This paper grew from a partnership between many organizations. Initially, Jobs for the Future (JFF), the Foundation for California Community Colleges (FCCC), and the Woodrow Wilson National Scholarship Foundation—organizations that are intermediaries for Early College Schools in California—were concerned about state-level policy barriers for creating effective comprehensive dual enrollment programs in California. Several administrators in Early College Schools had expressed concern to those organizations that several of California's policies were at odds with a crucial part of ECSs' missions: to provide the opportunity for students to earn an associate's degree and a high school diploma in five years. Due to restrictions in school funding based on average daily attendance (ADA) and in college credit accumulation, the schools faced barriers in offering a comprehensive set of dual enrollment courses. In 2003, JFF and FCCC partnered to unearth some of the main policy barriers affecting ECSs. Since then, JFF has continued to work with FCCC and other intermediary organizations to identify and advocate for improved policies through research, the documentation of needs articulated by school and college leaders, and education of policymakers.

Concurrently, the Woodrow Wilson Foundation hired researchers at WestEd and Stanford University to undertake a similar project examining statewide policy barriers to the development of comprehensive dual enrollment practices. In 2008, the organizations jointly developed a larger research project. Researchers from WestEd, Stanford, and JFF interviewed 18 teachers and administrators in eight ECSs throughout the state.[23] Urban, rural, and suburban schools were included, as were schools that had just started and schools that had been operating as an ECS for several years. Interviews were conducted between April and June 2008.

Based on those interviews and conversations with education leaders in California, as well as a review of relevant research in the state and nationwide, it became clear that the restrictions on dual enrollment—and the lack of a statewide vision for dual enrollment—created an impediment not just for ECSs, but for a host of other high school reform efforts and programs that seek to create a college-going environment for students. The schools most affected by these problems are often schools that educate traditionally underserved students—schools that are using innovative methods to engage students with rigorous curricula. Thus, the ECS-focused research turned into an effort to illuminate problems for all those who were seeking to use dual enrollment for broad student populations.

[23] Most interviews were done in person, but some were done over the phone.

Appendix V

Cost-to-Degree-Completion Analysis for ECS

The cost-to-degree-completion (CTC) estimates provided in this paper were generated based on cost-benefit modeling done for Jobs for the Future (JFF) by Augenblick, Palaich and Associates, an education research and finance firm in Denver.

A cost-to-degree-completion (CTC) analysis is a measure of the costs associated with the attainment of a particular education goal by a particular student or set of students—in this case, students from a sample of Early College Schools in California. In such an analysis, two important calculations are made. First, the total costs to develop, produce, and deliver the program are computed. This was provided by JFF based on national research on the start-up and ongoing costs of early adopters of Early College Schools. Second, the time it takes a student to achieve the degree goal is computed. Generally, the longer it takes for a student to reach a degree goal—for example, including by spending time in remedial courses—the greater the cost to completion, as the associated costs of education continue to accrue. Also, efficiency is gained when fewer students drop out before the completion of a goal because dropouts represent lost investment that does not result in completion. Issues like the demographic backgrounds of entering students are controlled. JFF provided demographic and income figures for Early College Schools, based on publicly accessible state data and data from an annual survey of early college schools nationally.

Because most Early College Schools in California are too new to have students already graduating from college, the CTC modeling uses projections based on estimates of the college readiness of early college students—a prime predictor of future college success controlling for student demographics—and national data about the college credits earned on average by these students by the time of their high school graduation.

Finally, the resulting CTC figure is then compared to the CTC for those students who did not participate in the particular learning option, using the same methods. The costs and student progression rates for non-Early College students uses projections based on national longitudinal data and national data about the costs of K-12 and postsecondary education by state (in this case, California).[24]

Sources of information input into the CTC model: The estimates use national data about state costs for K-12 and postsecondary education from the National Center for Education Statistics Common Core of Data and the Delta Project's analysis of NCES

[24] This explanation of the CTC methodology is based on descriptions provided to JFF by Augenblick, Palaich, and Associates.

IPEDS data from 2005-06. They also use an analysis of students' education trajectories by Optimal Solutions Group, LLP, based on the National Education Longitudinal Study (1988), to assist in estimating education completion rates and time to completion. Data for California ECSs and state comparisons are drawn from various sources including: the California Department of Education "Dataquest" system, JFF's national ECS Student Information System, and other research by JFF on early college costs.

Appendix VI

Key Principles for Supportive State Policy

Hoffman, Vargas and Santos (2008) identify the following key principles that state policies should reinforce and clarify in order to encourage the development of effective Ramp-Up practices.

Purposes of concurrent enrollment:

- Programs serve as a bridge to college for students not already college-bound and as a head start on college for those already committed to a postsecondary credential. Programs continue to serve academically advanced students.
- Policies help to better align and integrate grades 9-14, and programs provide a feedback loop on student performance and academic standards in the last two years of high school and first two years of postsecondary education.

Setting eligibility:

- High school students can enroll in a college course based on meeting the prerequisites for that course alone. Students need not have met all high school graduation requirements or overall college admission standards.
- The secondary and postsecondary sectors together determine eligibility requirements.
- Rather than a single, state-mandated test, there are multiple ways to demonstrate readiness, including a combination of tests, course grades, teacher recommendations, and portfolios.

Ensuring equitable access:

- All high schools provide a state-defined minimum number of dual enrollment courses or credits.
- All public postsecondary institutions participate in concurrent enrollment.
- All qualified students have the option to build dual enrollment into their individual learning plans.
- The state requires that high school/college partnerships are structured to help students prepare themselves for concurrent enrollment—including preparation for students who need support in becoming eligible.

- All students and families must be informed of the availability and benefits of dual enrollment.

Quality:

- College courses taught at high schools use the same syllabus, assign comparable work, and give the same examinations as the equivalent courses taught on the postsecondary campus.
- The kind and number of college courses offered is limited in order to monitor quality efficiently.
- Higher education sets minimum instructor qualifications.

Providing supports:

- Each partnership between secondary and postsecondary institutions specifies student support responsibilities in a memorandum of understanding (MOU). The state may provide a template for the MOU.
- Each partnership provides a liaison between the high school and college, with responsibilities for advising students, arranging course schedules and linking students to support services.
- High schools and postsecondary institutions together select a limited number of "high-support" pathways leading to credit in general education or a career certificate, and they counsel students needing such support to participate.
- Provisions are made for students at risk of dropping out of high school to participate in on-campus, credit-bearing courses.
- A "college preparatory" strand is designated for students with risk factors—for example, those who are overage and undercredited, or who are reentering the system. These students may take noncredit developmental or remedial courses to help them prepare for college-level work or special preparatory courses.

Finance:

- Secondary and postsecondary institutions are compensated for each student's education in such a way that both are held harmless or almost harmless.
- Courses are provided either to all students or to low-income students free of charge.
- Funding streams are flexible enough that money can be used for professional development, books, lab fees, and student transportation.

Data systems:

- State K-12 and postsecondary data systems can identify current and former concurrent enrollment enrollees and distinguish participants and outcomes by social and academic characteristics.
- Unit-record databases with unique student identifiers allow the K-12 and postsecondary sectors to share data and monitor the progress of concurrent enrollment enrollees from high school to and through postsecondary education.
- Data collection and analyses are designed to provide evidence about whether a state is meeting its specified goals for dual enrollment.
- The state reports annually on dual enrollment participation and impact.

Governance, accountability, and alignment:

- A state body representing education leaders across grades P-16 has the authority and responsibility for guiding concurrent enrollment policy.
- Concurrent enrollment programs have a state-level administrative structure that can provide assistance with collecting data, designating dual credit courses, monitoring program quality, and making improvements.