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January 31st, 2004

Addressing the Development of College Knowledge: Concepts to Improve Student Transitions from High School to College

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The normative expectation for schooling among today's high school students is not a high school diploma, but the attainment of a college degree. Educational aspirations have never been higher – 88 percent of 8th graders expect to go to college (NCES, 1996) – and about 75 percent of high school graduates attend some form of postsecondary education within two years of graduation (Berkner & Chavez, 1997). Whether this high level of aspirations is a result of an economy that increasingly demands a college-educated workforce, the success of continuing efforts to increase access to postsecondary education, or a belief that a high school education is not “what it used to be,” one reality is clear-- our separated educational systems are not designed nor equipped to fulfill students' aspirations.

This is particularly true for students who are traditionally underrepresented in postsecondary education, and for students who attend broad access institutions – institutions that admit almost every student who applies. Broad access institutions comprise about 85 percent of all postsecondary schools and educate the majority of the nation's college students. For example, community colleges enroll 45 percent of all first

year postsecondary students and are the place where the majority of students of color and economically disadvantaged students start their postsecondary paths. Approximately 80 percent of first-year students attend minimally-selective and nonselective two- and four-year institutions.¹

There are many reasons why many students are not able to attend or complete some form of postsecondary education. Many students are not academically prepared to be successful in college. In the California State University System, for example, nearly 50 percent of freshmen taking placement tests require remediation in English or mathematics (Penner, 1996). Since remedial courses are not considered college-level work and consequently are not offered for college-level credit, remediation often has a negative impact on students' success. Remediation not only leads to longer time-to-degree, but more critically, it also significantly decreases the probability of degree completion (NCES, 2001). At the same time, many students may not be able to fulfill their postsecondary aspirations because they are simply unaware of entrance requirements, were never able to take the proper classes and tests, and therefore were ineligible to even apply to college. Students who attend their local community college often find that, while the institutions are open-access, they are still subject to placement tests and remedial work if they are not well-prepared. While many institutions do not publicize what it means to be ready for college-level work, all postsecondary institutions have such standards.

Kirst and Venezia (2001) and others have argued elsewhere that, while it is true that students are finding it difficult to fulfill their postsecondary educational aspirations because they are poorly prepared academically, their lack of preparation and knowledge

of what to do in order to prepare for college is due in large part to highly disconnected K-12 and postsecondary education systems. With little history of collaboration, today's K-12 and postsecondary education systems are characterized by divergent missions, virtually no communication, and most recently, two separate and increasingly complex testing and accountability systems. K-12 systems are charged with providing all students with a sound basic education and that has never included the mandate to prepare all students for college. A belief behind this work is that the current systems must change, given that the vast majority of high school graduates attend some form of postsecondary education and many are unprepared.

Given current budget crises and politically-driven mandates (such as No Child Left Behind and related state-level reforms), state governments might be less inclined to make changes that they could perceive to be more expensive in the short term (e.g., offering Advanced Placement courses to more students). In addition, there are many perverse incentives created by current policies, such as education finance systems that often pit one education sector against the other. The signals sent by different education systems to students and families regarding successful pathways to postsecondary education are likely to be confusing at best. For example, curricular requirements for high school graduation send one signal for educational success to students, while requirements for less selective colleges send another and those for the most selective colleges send yet another. In many states, high school graduation plans do not require the same level of knowledge and skills as do the public postsecondary education entrance and placement requirements. This, in effect, tells students that, when they graduate from high school they need to know a certain set of knowledge and skills and, for many

students, three months later, they need to know an entirely different set of knowledge and skills.

Testing practices and materials may also send mixed signals regarding academic preparation. The dominant entrance admission exams in higher education, the SAT-I and the ACT, are comprised of primarily abstract questions, while approximately 33 percent of the items on high school assessment tests are framed in realistic situations (Le, 2002). Many states are instituting 10th grade assessments that are the last statewide high school assessment students must take. Therefore these can, in effect, signal to students what they should know and be able to do to graduate from high school. While some are high-level, they are still 10th grade-level exams. Thus, a sound and adequate high school education (as measured and signaled by tests) often leaves a large gap between high school learning and college preparation. In this era of high-stakes accountability systems, teachers must prepare students for success in one system (the K-12 system); this can sometimes be at the expense of preparation for college.

In this article, we report selected results of a national study of K-12 and postsecondary education policy connections and present two conceptual tools to consider for future policy efforts aimed at improving secondary-to-postsecondary transitions for students. First, we provide an overview of Stanford University's Bridge Project. Second, we present a typology of college-college cultures in high schools, based on our California research and supported by other Bridge Project cases. Finally, we discuss our conceptual framework from our project that can lead to improved state and regional policymaking. We believe this work can help educators and policymakers at all levels of education (local, regional, state, federal, K-12, and postsecondary).

A Lack of College Knowledge

In our recent work, we found disturbing patterns of evidence indicating the possible fallout of disconnected educational systems (Venezia, Kirst, & Antonio, 2003). In that study, The Bridge Project (<http://bridgeproject.stanford.edu>), we surveyed students and parents in six states to assess their knowledge of placement test policy, curricular requirements, and admission criteria. Across all states (California, Georgia, Illinois, Maryland, Oregon, and Texas), we found very poor levels of what McDonough et al. call, "college knowledge" (McDonough, 1994). The following describes just a few of our findings.

Placement tests are the gateway to college-level, credit-bearing coursework. In a disconnected K-16 (K-12 through four years of postsecondary education) system, students may not know how college-level work is defined and will therefore be unaware of what they need to do to prepare themselves for postsecondary education. They focus more on getting into college than on being ready for college, academically. They need to know, for example, in which high school courses to enroll and whether their current courses meet college-level expectations.

As a very rough measure of student knowledge of these tests in each of the case states, we asked students to name the subjects in which placement tests were required at two of their local public universities. Generally, we found that students knew very little about placement tests. Across all six states, less than half the students knew the placement policies for their local institutions. In Illinois, for example, less than 17

percent of the students knew correctly the placement policies at their local "flagship" university, the University of Illinois at Urbana-Champaign. Across all states, approximately 30 percent knew the specific subjects in which they were expected to demonstrate college-level readiness.

Students also need to understand the differences between the course-taking patterns that will assure them a high school diploma, those that will minimally qualify them for admission to the various colleges they aspire to attend, and those that will provide them with the best chances for postsecondary success. As Adelman (1999) has most persuasively shown, the strength of a students' high school curriculum plays the most important role in determining postsecondary educational attainment, especially for underrepresented minority students. Again, a lack of compatibility among these various sets of requirements likely increases confusion over the proper courses students need to fulfill their postsecondary aspirations. To further complicate matters, most postsecondary institutions have different entrance, placement, general education, and graduation standards that are not well publicized. Not surprisingly, very few students in our study could accurately state the course requirements for either the selective or less selective four-year college in their area. In Georgia, where students knew the requirements best, only 11 percent knew the requirements for the University of Georgia and just 10 percent knew them for the State University of West Georgia. Student knowledge in California, Illinois, Maryland, and Oregon was even poorer. Students could often distinguish less selective institutions from more selective institutions, but they could not provide accurate examples or specific information about admissions-related policies. This was most surprising in California, since the University of California Systems has a well-articulated

set of eligibility standards known as the "A through F" requirements²; no other state in the study articulated eligibility standards so publicly.

Across all the states, student knowledge of these requirements was also stratified by socioeconomic background and academic track. Predictably, students from lower socioeconomic backgrounds and those not taking honors-level courses understood these requirements much less well than their other classmates. Often, students in nonhonors courses reported that they followed their schools graduation plans, believing that, if they did, they would qualify for admission to a less selective postsecondary institution. The honors students usually took a more difficult curricular path, but both groups expressed concern about whether or not they would be prepared academically for college.

We also found that most students understand that high school grades and SAT-1 or ACT test scores play prominent roles in college admissions processes generally, but the increasingly complex array of criteria that institutions take into account for their admissions decisions is less well known. The University of California (UC), Davis, for example, ranks grades, test scores, special talents, and volunteer work as "very important" criteria for admission. In our California case, over 90 percent of students recognized grades and test scores as important criteria, but only about half understood that the latter two criteria are considered strongly as well. Almost all students (99 percent) believe letters of recommendation play a role in admissions at UC Davis, when in fact, the letters are optional and seldom come into play in admissions.

² When we conducted the research, there were six disciplinary areas in which there were course requirements (labeled A through F). The University of California and California State University Systems have merged their eligibility requirements, added one to the original A through G, and now they are known as the "A through G" requirements.

This substantial lack of specific knowledge among students must certainly detract from their abilities to progress successfully to postsecondary education and be academically prepared once they get there. Solutions to this unfavorable set of conditions can be both cultural and structural.

Next, we use insights drawn from the Bridge Project to develop our typology of high school cultures. The typology allows us to describe the micro-level conditions within schools that work (with varying degrees of success) to bridge the disconnected systems in providing college knowledge to students.

A Typology of College-Going Cultures

Given this contemporary picture of high postsecondary aspirations and the continuing problems of unmet aspirations, inadequate preparation, and inequitable stratification of students across postsecondary destinations, a body of research has grown rapidly to address the issue of poor college knowledge among students. What follows is a typology of three school cultures, derived from qualitative data collected from public high schools in our California case and further illustrated with data from the Texas and Oregon cases. To develop the typology, the California researchers analyzed transcripts of individual interviews with 37 teachers, counselors, and administrators, and focus group interviews of 60 [shouldn't it be more like 120+ students, since there were 2 focus groups of at least 10 students each per school?] students in the six case study schools. A purpose of the interviews and focus groups was to seek out the informants' understandings of college knowledge and the how that knowledge was obtained, transferred, or transmitted. Using a grounded theory approach (Strauss & Corbin, 1990), open codes were generated and then inductively analyzed to produce the typology

described below. We selected schools based on a variety of factors – such as free and reduced-price lunch; parental income and education; student race and ethnicity; SAT and ACT scores; college-going rate; location, such as rural, urban, and suburban; and region (part of the overall feeder pattern of the institutions in the project) – to ensure a diverse sample, given the small number of schools in the study (24 in total).

The typology reflects a range of cultures that differ in the extent to which a school supports student preparation for, and transition into, postsecondary education. We term this a typology of college-going culture. We chose this term over similar ones such as "college preparatory" because we want to emphasize that a college-going culture encompasses favorable values and attitudes toward all aspects of transitioning to postsecondary education in addition to those concerned with academic preparation. We constructed this typology as a conceptual tool, one that highlights differences in a neat, categorical fashion. We do not wish to over-generalize or create blanket statements about types of schools. Its utility is in identifying cultural elements of schools that do and do not support successful transitions to postsecondary education. It is not meant as a method of classifying "good" or "poor" schools. Our objective here is to illustrate cultural variation among schools that arguably exists everywhere in the country. While such variation is due to a large number of factors such as economic conditions, teacher supply, and local policy context, we argue that it is also a result of disconnected educational systems that, at best, provide little structural support for reducing vast differences in college-going culture.

College-going culture includes the intangible qualities and sustaining values or ethos of a school that can motivate and advocate for students to attend postsecondary

education, but can also prevent them from pursuing postsecondary options. A high school's college-going culture cannot be measured fully via simple, visible, or discrete indices such as standardized test scores, honors and advanced placement courses, and postsecondary placement. This typology ranges from a strong college-going culture to a minimalist college-going culture to a non-college-going culture.

Not surprisingly, the two schools that we categorized as high-performing schools at the onset of the research based solely on standardized board scores were the two schools that displayed stronger college-going cultures. They are also the schools with the fewest number of students who receive free or reduced lunches. Furthermore, the two middle-performing schools displayed a rather minimalist college preparatory culture. Finally, while the two low-performing schools displayed some elements of a minimalist college preparatory culture, they were also challenged by elements that were counter to college-going cultures. Below we describe elements of each culture type and then describe specifically how each of the schools in the California case embody that type of college-going culture. Exemplars from Texas and Oregon schools round out each type.

We focus on issues that relate to major high school exit- and college entrance-level policies that impact students' lives (e.g., assessments, course and college counseling offerings, postsecondary placement procedures, postsecondary admission requirements). We focused primarily on student-centered issues that are amenable to state policymaking. We did not include factors such as teacher and counselor preparation and professional development, or educators' personal experiences (such as where they attended college).

Strong College-Going Culture

In schools with a strong college-going culture, almost everyone and everything is geared toward college preparation and the expectation is that virtually all students will continue directly to college (McDonough, 1997). This culture fosters a high level of expectation for academic achievement such that the conversations around postsecondary options focus more on which college students would attend, not whether they would attend college. Support in the form of advice, information, and resources is provided by the school in a proactive manner, minimizing the burden carried by students for gathering, and acting upon, college knowledge. There are many factors at play in these schools – many of the teachers and administrators likely attended relatively selective postsecondary institutions, and a large proportion of the parents probably attended college; this study does not explore factors that are exogenous to the school environment.

At these schools, counselors and teachers are well-attuned to the weight given to standardized testing and implement specific strategies for enhancing their students' preparation. It is typical for such schools to require all students to take the PSATs in the 10th grade and then again in the 11th grade to enter the National Merit Scholarship competition. Faculty and administrators explicitly and repeatedly encourage students to take achievement tests (SAT-IIIs) immediately upon completing a specific subject or class.

Typically, all counselors at elite college preparatory schools are extremely credible and competent, and go to great lengths to provide their students accurate and up-to-date information. They are hired armed with degrees from elite colleges and have developed a broad network of professional contacts. Though it was not the case in our case study schools, more affluent schools may even have full-time dedicated college

counselors within their employ. Counselors and teachers at such schools explained that parents were very involved with the college search and preparation process and helped to convey knowledge, attitudes, and expectations about college. Because parents at these schools exert a great amount of pressure on their children to succeed academically, the school counseling efforts are directed at both students and parents. Counselors at schools with the strongest college-going cultures exercise sensitivity to the pressures of admissions and counsel seniors about including "safety schools" on their college list and forming an admissions management strategy that also fosters a healthy rejection management strategy.

Students rely heavily on their teachers for college advice, especially when having to choose among the various offers of admission. Teachers are integrally involved in the college knowledge process, often crafting junior appraisal forms that the college counselors then use to orchestrate the school statement/counselor letters of recommendation for each senior.

Within the schools in our study that exhibited strong college-going cultures, teachers and administrators repeatedly described their school as "college preparatory" and often spoke in superlatives, such as "the best math program" and "the highest UC placement." Often, educators at these schools are preoccupied with the rationale, coherence, and integrity of their academic curriculum. The high-performing schools in our sample often anticipated state and national assessment and curricular standards changes and developed school-wide benchmarks and assessments to meet these new external demands. Despite many solid reasons to be proud of the school's academic accomplishments, faculty and administrators are rarely content with being simply "good

schools" and strive to be much better. As Sarah Lawrence Lightfoot found in *The Good High School* (1983), "goodness" is inextricably linked with self-criticism; while the school recognizes its exemplary qualities, it also points to its vulnerabilities which it hopes to confront directly and worked with over time. Strong college preparatory schools search for ways to improve their student services and college success.

Three Palms.³ As was clearly evident in the décor of its main office, which contained elaborate displays of impressive college matriculation statistics, college pennants, and college posters, Three Palms is a school with a strong college-going culture. The school's SAT-9⁴ and SAT-I averages are well above the district and state averages, and nearly 40 percent of all graduates matriculate directly into 4-year colleges and universities. Despite the fact that Bridgeport, the other case school in the same district as Three Palms, also offers a wide array of Advanced Placement (AP) courses (approximately a dozen AP courses each), Three Palms students earn AP credits at a rate twice that of Bridgeport and twice that of the State's average.

McLaughlin (1992) defines an "academic high school" as one that has a more homogenous student body in terms of student academic interests, family expectations, and socio-economic status. Such a school is able to devote more attention to "academic excellence" and less attention to "basic skills" than what McLaughlin calls a "typical" high school. Three Palms, a high-performing and relatively affluent school in our sample, nicely fits McLaughlin's description of an academic high school.

According to the senior class counselor, standardized test preparation is an important facet of his counseling program. This counselor quickly notified all the

³ Names of schools are pseudonyms.

school's faculty of UC Berkeley's new policy to weigh SAT-II's more heavily than the SAT-Is. He urged teachers to advise their students to take the SAT-II subject exams as close to the end of a course of study as possible so that students will have the best chance of retaining the subject matter. Teachers were instructed to teach their students how to "bubble-in" a scantron form properly and how to narrow and eliminate choices on a multiple-choice exam.

Teachers play an advocacy role at Three Palms through formal advising duties. Each teacher advises a group of students throughout the students' four years. One teacher worried, however, that she was not well trained in college counseling and is not well-versed on the ever-changing policies and procedures for helping students navigate the college matriculation process successfully. She said:

... it's just unbelievably frustrating. It's whether they'll go to college or not, it's a pretty important thing and so I have really huge concerns about the way that that's run. I think I'm more conscientious about it than a lot of teachers and don't blame them because it's really tiring, I mean it takes a lot of time to be able to go through every student's registration form. Takes at least 20 minutes to go through an make sure, "Okay, what has this student failed? What has this student passed? What do they still need for high school and ok, where does that leave them in terms of UC recs.? ...What do they need to do next year?" And it's a big responsibility I'm not really trained to do...

This concern demonstrates the responsibility that teachers have assumed for college counseling in a culture that strongly emphasizes postsecondary success. It also demonstrates the self-critical nature of a faculty who does well by its students but strives to do better.

Bellview. Bellview High, which is located in an upper middle-class residential neighborhood, is known for its rigorous academic program and high academic

⁴ The SAT-9 is a statewide assessment in California, used to assess the academic performance of public

achievement. Bellview has consistently earned the highest SAT-9 scores in the district. These factors, along with other indicators such as the school's high UC eligibility rate (~37%), are indicators of a strong college-going culture. In fact, all of the students in the 11th grade Honors English course who participated in a focus group indicated that they would apply to UC Davis.

Bellview administrators and teachers expressed great pride in their "college prep" school. Teachers explained that the school is much more "academically conscious than the rest of the schools in the district," that the community is "well-educated" and "[parents] motivate their kids to go to good college(s)," and that the school has "very low grade inflation compared to the state average." Said one of the counselors, "We have a community which has high aspirations for their children. The students are very motivated." He also said, "Despite all the lack of what appears to be school services, it just seems to work, continues to work and kids make it through." In response to questions about how the three school counselors are able to serve such a large student body, he said, "We stay open on Saturdays, we're open on Easter vacation, we stay late in the evening, we come early in the morning."

At Bellview, teachers spoke proudly of the high-achieving student body. At the same time, some spoke of the disproportionately high numbers of low-SES and minority students in the lower-level courses. One teacher expressed her agreement with the University of California's consideration of abandoning its policy of awarding an extra grade-point for honors and advanced placement courses because she believes the policy adversely impacts underrepresented minority students. As this teacher explained,

schools relative to each other and to a national sample of students.

The one thing that I do agree with is that they are taking away the one additional point for honors because if you look at the --to be perfectly honest with you --at the college prep courses, and particularly the higher courses, the APs and the HPs, you don't see very many students of color in there.

By "students of color" this teacher was referring to the African-American and Latino population at Bellview and not the large Asian-American population.

Strong college-going cultures were evident in other studied schools as well. For example, Vista High in Oregon clearly possessed characteristics similar to Three Palms and Bellview. It is a largely White, high-performing school that is often viewed as preparing students well for college; 80 percent of its graduates go on college. Seventy-three percent of Vista students take the SAT-I exam. It is school that exemplifies the proactive nature of a culture geared toward preparing students and transitioning them successfully to postsecondary education. In recent years, Vista's administrators and staff have developed and implemented innovative programs aimed at postsecondary transitions. For example, Vista has established a partnership with Portland State University (PSU) in which faculty from PSU and Vista teach 60-90 seniors in good standing a thematic, interdisciplinary course called Capstone.⁵ In this program, each staff and faculty member is an advisor for a group of students, and most discussions with advisors center around college preparation. Parent volunteers also help staff the college center. Students are aware of the unique educational opportunities that Vista provides to them. As one student said, "Vista is an environment where you can pretty much act on your own desires for your own education. It's all up to you. Every door is open."

Minimalist College Preparatory Culture

⁵ The name of the program has been changed to protect the anonymity of participating schools.

In schools that displayed a minimalist college preparatory culture, counseling efforts were reactive, as counselors responded to student or parent demands for specific counseling but did not proactively promote special advising or discussion programs. All six of the schools in our California sample had student-to-counselor ratios of approximately 700-to-1, and counselors at all six schools lamented that they were unable to advise all of their students, let alone guide the efforts of every “college-bound” senior. But the schools that exhibited a minimalist college-going culture were less aggressive about changing the status quo than the schools that exhibited strong college-going cultures.

Counselors at minimalist college-going culture schools said that they devote more time to class scheduling and helping students meet the high school graduation requirements than to postsecondary counseling. Counselors spoke of advising students in their classes about registering for high school courses and posting deadlines for college applications and college entrance exams, and financial aid forms. They provided printed materials, such as application and financial aid forms and campus promotional materials. Essentially, they acted as information providers, not as aggressive advocates or college motivators. Unlike the schools with strong college-going cultures, minimalist schools did not hold their students' hands through the college admissions process; the burden of the college choice decision-making process rested on the students. In one minimalist school, the duties of postsecondary advising were divided between the counseling staff and the career center staff, and the lack of collaboration between the two staffs resulted in a few gaps and some confusion as to who was in charge of what aspect of postsecondary affairs.

Students' aspirations for college and their school's postsecondary matriculation statistics were fairly average among comprehensive California high schools. The college preparatory and honors students at these schools expressed interest in their local public four-year universities (UC Davis and California State University at Sacramento) and in their local community colleges. A few students expressed interest in private four-year colleges. In recent years, a handful of the top students matriculated at elite east coast colleges, like Harvard and Amherst, but the counselors spoke of these students as being extremely self-motivated and resourceful, implying that the students negotiated their college search without much assistance from their high schools. Unlike schools with strong college-going cultures that serve the top students well and fully support these students' desire to enter elite colleges and universities, schools with minimalist college-going cultures cater primarily to students who aspire primarily to local colleges and universities.

The two comprehensive high schools in California that fit this type, Applewood and Haverhill, are both "middle-performing schools" in the state. Academic performance indicators place the two high schools squarely in the middle of the state achievement levels and in the middle of their respective "similar schools" cohorts. About one-fifth or less of their graduates complete the "A through F" requirements for the University of California, and approximately one-fifth matriculate directly to a four-year college or university. About one-third of the students at each school take the SAT-I, and average verbal and math scores for each hovers around 500, the national average.

Applewood. We had difficulty finding counseling staff who were confident with their knowledge of college admissions and the local colleges. The counselor at

Applewood diverted many of our questions about testing and college placement to the career center, yet the career center staff person confessed that she was "not in AP loop" and thus not fully knowledgeable either. She confessed that she could not fully communicate to college representatives the strength of the school's curriculum, and that she was not involved in the senior survey enough to know where Applewood students matriculated after high school. The vice principal at Applewood spoke of a specific goal set by the district's school board that by the year 2000, 50 percent of their students should be "CSU ready," and 35 percent should be "UC ready," with "ready" meaning that students will have completed all of the curriculum requirements for admission to the California State University (CSU) or the University of California. This administrator also worried that the school had not established a working relationship with the local CSU campus and UC Davis to achieve better UC and CSU matriculation rates. She further mentioned that there was no connection between the AP teacher and the colleges and wished that colleges would give the school more information on what colleges look for in students.

Students at Applewood explained that some of their English teachers helped them inside and outside of class to write their college essays. Overall, however, the students complained that the school's attention had not been on college preparation. These students believed that the push for adopting a year-round schedule and a disruptive teacher strike negatively affected students, "especially the ones who want to go to colleges," as one student articulated. Another student spoke of the school's inability to prepare students fully for college:

I think they should prepare us better for the placement tests so that we don't get stuck in basic classes. I think we should have the opportunity to know, not necessarily what's on the test, but have a good idea of it so that we know what to expect.

At Applewood, students wanted their school to take a more proactive role in helping them to prepare for college success and the college admission process. They spoke of wanting better preparation for what they perceived as the highly consequential SAT exams. However, the minimalist college-going culture did not support these expectations.

Haverhill. Haverhill students expressed similar concerns indicative of a college-going culture that is not fully coherent within the school. In focus groups, many told us that teachers do not care about preparing students for college, while others stated that some teachers encourage them to attend. One Haverhill teacher expressed the view that the school doesn't "wholly support" students' dreams. Several teachers worried that counseling did not start soon enough and that there were not enough counselors. As one honors English teacher said:

I think up at the counseling office you don't find enough counselors, I think you don't find enough time for counselors to come into our classrooms and talk to my kids about what they should be doing. Instead I am doing it.

The vice principal, who had been at the school for several decades, chronicled of the school's dwindling counseling resources: "At one time we had six counselors, and once, in the golden ages, we had eight. Now we have two really working with academics." One teacher spoke of how the sole counselor for seniors basically "catches" the 585

seniors. However, this teacher lauded the counselor's effort to offer workshops on completing college applications and financial aid forms.

One Haverhill student complained, "If you're in the top 10 [percent] of the class, he'll [senior counselor] help you with college, but other than that, you're on your own." Said another student, "They're focusing on what's happening when you're in high school, and once you're in college you're on your own." Haverhill's counselor of seniors justified the minimal attention given to students by arguing that the school encourages students to be "a little bit more industrious and self-sufficient" than other schools. Lamenting the minimal efforts to comply with state funding regulations to provide counseling to 10th graders and their families, this counselor said, "I think we're just meeting the legalities." Students articulated that in an ideal world of college counseling, all students would be assigned to a counselor who gives students good advice and ensures that students register for the required standardized tests.

In Texas, Riverbend High School exhibited the same difficulties in achieving a very strong and pervasive college-going culture. While Riverbend has a counselor who devotes his time only to post-secondary issues (specifically, scholarships and job placement), he spends most of his time on placing students in the labor market. And although approximately 30 to 35 percent of the high school's students take all honors, pre-AP, or AP courses, administrators and teachers reported that the military has a much stronger presence on campus than do postsecondary education institutions. As a school with a minimalist college-going culture, some aspects of the school support students' postsecondary aspirations, while others may actually disrupt their aspirations. A primary example of this culture can be seen in the counseling limitations honestly acknowledged

by very well-meaning teachers. One teacher told us that most of her students, who are typically on a lower academic track, have expressed an interest in attending college, but admitted that she is not aware enough of college requirements and policies to give them accurate advice. Another teacher, who supports her honors students by discussing college-related issues with them consistently over the course of the year, also told us that she was unsure of the admissions requirements for the two four-year colleges to which most students aspire.

Non-college-going Culture

At schools with non-college-going cultures, teachers and administrators spoke of “minimal expectations,” “low teacher morale,” “student attendance problems,” “and low student performance.” These problems have forced these schools to worry more about maintaining discipline, keeping students in high school, and helping students to graduate from high school instead of also helping them to pursue postsecondary opportunities. They typically have a less wealthy, more urban, and more racially diverse student population. In the California case, the two low-performing high schools exhibited a non-college-going culture.

Like the teachers at the higher-performing schools with strong college-going cultures, teachers in the schools with non-college-going cultures schools displayed self-criticism. However, this criticism was of a different sort. These low-performing schools were less secure and less certain of their goals and teachers spoke of persistent complaints, nagging disappointments of chaos and disintegration, and hopelessness in their ability to improve their situation. More “finger pointing” happened at these schools, as teachers, counselors, and administrators directed their complaints outwards at “the

system" instead of on the school itself. Teachers battling the educational malaise at the low-performing schools placed blame on the bureaucratic, inconsistent administration, on apathetic families, and on the faulty standardized testing system

Students at the schools that displayed a non-college-going culture were relatively unsophisticated about negotiating the college admission process. Local community colleges and less-selective state universities were very common postsecondary destinations among students who matriculated directly into postsecondary education but more selective and distant institutions were not as common. Students spoke with less specificity when communicating their knowledge of the admission and placement requirements and they expressed more doubt about their chances of attending the UC and CSU than the students in the minimalist and strong college-going schools. According to the counselors at the schools that exhibited non-college-going cultures, out-of state colleges were not as popular and it was a rare student who applied to an Ivy League college or small liberal arts college. At Center City High School, for example, the college counselor expressed her frustration that the few students who were UC eligible were often reluctant to go away to college:

Because it comes down to economics. For our kids, we have such a, you know, lower socioeconomic base, really... I have kids that qualify now that don't go. They choose to stay closer to home because they need to stay with their families to help, either economically support or just because the emotional support is there.

Center City. Among the six schools in our California sample, Center City is the only school that can be easily described as a school with a non-college-going culture. In contrast to Bellview, Center City High School has been one of district's lowest

performing high schools. Center City High could aptly be described as an “assimilating high school,” which McLaughlin (1992) defines as one that experiences significant shifts in goals associated with rapid change in the character of the student body. As McLaughlin explains, the challenge for such a school involves decisions about the fit, or lack of fit, between existing curricula and policies and the changing student body. At Center City, for example, teachers lamented the highly transient student population. The vice principal shared a statistic that one-third of the students were failing algebra. The college counselor complained, "We call ourselves the college preparatory school but we have less time devoted to college and postsecondary counseling and paraprofessional than any other school in our district."

This counselor lamented her students' low college board scores, which she felt limited their chances of gaining admission to a highly selective university. "Do you know how many kids at our school are 1100 or higher? Not even five," she stated. This counselor expressed frustration about her uninvolved parent body; she cited poor attendance at college nights and financial aid assistance workshops. She also complained that students did not process the information they were provided. The 11th grade Honors English teacher stated that only two students in the 12th grade Honors English course passed the college English placement exam that was sponsored by the local community college.

The vice principal said that Center City is a low performing school with a “transient” student population, sources of frustration for both the administration and teachers. Regarding the pressures of standardized testing, this vice principal said:

I think teachers here are a little frustrated with the fact that so much weight is being placed on the standardized test right now, but it is

something that we have to live with and we make some attempt to do that. We had a series of Monday classes that was especially set aside where teachers could go over test taking skills with students, particularly, there was a section on math and a section on reading, ideas about how you might take a test so that you would do better, in math, going over some concepts and things like that. I don't think that we really got to the point where we spent a lot of time...

One teacher described the school's resources as "dismal," noting that the school textbooks as "dinosaurs." Another teacher spoke of a scandal in which a school counselor allegedly engaged in dishonest behavior (helping students to cheat on standardized exams).

In the focus groups Center City students were quick to describe their school as "ghettos," meaning "run down, not smart kids, not bright, immature, bad teachers." But some students admitted that these were misperceptions. One teacher described the student culture as a place where "...it's not cool to express enthusiasm about your school. A lot of times they feel defeated." Another teacher said that the students feel like "prisoners," referring to the closed-campus and the newly-installed barbed-wire fence that prevents students from re-entering the parking lot. As one student commented, "Nobody carries the Center City jacket," a phrase that carries connotations of disassociation and possibly shame.

When students were asked if they would go to a teacher for college advice, the students in the college preparatory class laughed and the honors students said that they simply did not discuss college with their teachers. The honors students estimated that a competitive applicant for UC Davis would have to have at least a 3.7 GPA and a 1250 SAT-I. However, when asked if students at Center City had achieved these numbers,

students were reluctant to respond. “A few do. One or two. One or two got in,” explained one student in a solemn and somewhat discouraged tone.

Bridgeport. As in most typologies, the categories used are often too few or narrow to fairly capture each entity. Bridgeport High School was an anomaly in our sample because it straddles two college-going culture categories. On the one hand, because it had the lowest SAT-9 scores among the five comprehensive high schools in its district, Bridgeport should merit a “low-performing” rating. On the other hand, Bridgeport had experienced a certain level of success in postsecondary placement that resembled middle-performing schools.

One Bridgeport teacher, who had studied the founding of Bridgeport and Three Palms for her doctoral dissertation, explained that while the racial diversity of the two schools was similar, the socioeconomic diversity was very different. “Our kids are poorer... first generation,” explained one of her Bridgeport teaching colleagues. Another teacher explained that the consequences of being first generation college and poorer is that families are more reluctant to send their kids away to college.

One student at Bridgeport spoke of attending an informational session at CSU Sacramento on his own, and discovered that this was the best way to get accurate information on college admission. He stated, “And a lot of times our counselors don’t tell us the right things. They tell us what we should get for certain colleges but not necessarily the college we want.” Like the students at Applewood and Haverhill, the students at Bridgeport complained that the only time they had contact with a school counselor was when they needed to change their course schedule or to register for classes. On the other hand, students spoke of a counseling manual to which counselors

and students refer each time students register for classes. These manuals list the high school graduation requirements as well as the UC and CSU entrance requirements.

The honors students in our Bridgeport focus groups expressed serious worry about standardized testing. One student's comments revealed that even students understand the politics and the importance of his school's standardized test scores: "Our SATs are a lot lower than everyone else's because they encourage everybody to take the SATs so ours are a lot lower than everybody else." Teachers at Bridgeport acknowledged that while the school does not have the highest test scores in the district and does not send as many students directly to the 4-year colleges as Three Palms, the school places more kids in college (typically community college).

Eastside High School in Oregon is another relatively poor, low-performing school with little in its culture to support postsecondary aspirations. Teachers and administrators simply do not see the school as one with college preparation and transition as part of its mission. One teacher described Eastside in this way: "It's pretty blue collar. Low to middle [income]. [Students are] not necessarily expected to go to college." Teachers also described the student body as fairly transitory, as many students withdraw from courses and eventually leave school completely sometime during the school year. And the principal provided perhaps the most telling statement with regard to the administration's frustration with the school's culture as embodied by students: "The mindset for some students, which is probably a reflection of family, [is that] learning stops at 12th grade."

Although this typology describes a set of somewhat idealized school cultures, its heuristic value is in providing administrators a descriptive picture of the inner-workings

of schools that are less or better able to overcome the problem of the K-12/postsecondary education disconnect. School culture plays an important role in encouraging, socializing, and even mandating that students, counselors, teachers, and families take the task of collecting and transmitting college knowledge throughout the school seriously. To state it starkly, school culture can dictate that the job of providing college knowledge that bridges the systems is either proactive and universal or reactive and individualistic. At the same time, it is telling that the relative wealth of the school seems to coincide with the type of college-going culture present in a school.

A Conceptual Framework for Connected Policymaking

A major focus of this study was, by understanding stakeholders' college policy knowledge, to propose new alternatives for states' roles in the student college preparation and transitions processes. There are many exogenous factors that are not amenable to state policymaking; we focused on those that are possible to change through state-level reform. This next section connects what we learned from schools with our knowledge of state policymaking, and proposes a conceptual framework to help guide state policymaking. While disconnected state policies are not the root cause behind different types of college-going cultures in schools, this paper posits that connecting policies and programs will benefit all high schools, and particularly ones with weak or non-college-going cultures. For students who do not have an in-school or outside-of-school resource for college knowledge, aligned policies and programs can send signals regarding the knowledge and skills required for successful college preparation. As our framework indicates below, policy communication and lack of signals to students and parents is a crucial part of the preparation problem.

There are many other factors that affect student preparation for college and college enrollment and completion; however, there are many state policy-level disjunctures that help promote and sustain the separation between K-12 and postsecondary education. The numerous (and conflicting) nature of these policies often cause confusion among students, parents, and K-12 educators. Below, we outline some of the main state policy arenas in which there are disjunctures between K-12 and postsecondary education.

- **Multiple and Confusing Assessments.** State K-12 standards have swept across the country with scant participation by postsecondary education institutions or systems. Postsecondary institutions utilize course placement exams and many faculty administer their own placement exams; these do not relate, content-wise, to K-12 assessments. Postsecondary admissions and placement officials overwhelmingly report that they were unaware of K-12 standards and assessments, and K-12 educators are usually unaware of specific postsecondary admission and placement policies.
- **Disconnected Curricula.** Most states require that teachers teach, and students learn, a certain set of knowledge and skills by the time students graduate from high school. Usually, state- and school-level graduation plans vary, depending upon whether a student intends to attend college or not. Consequently, many high school graduation standards do not meet the demands required by college entrance or placement requirements -- a fact not usually publicized by high schools or colleges.

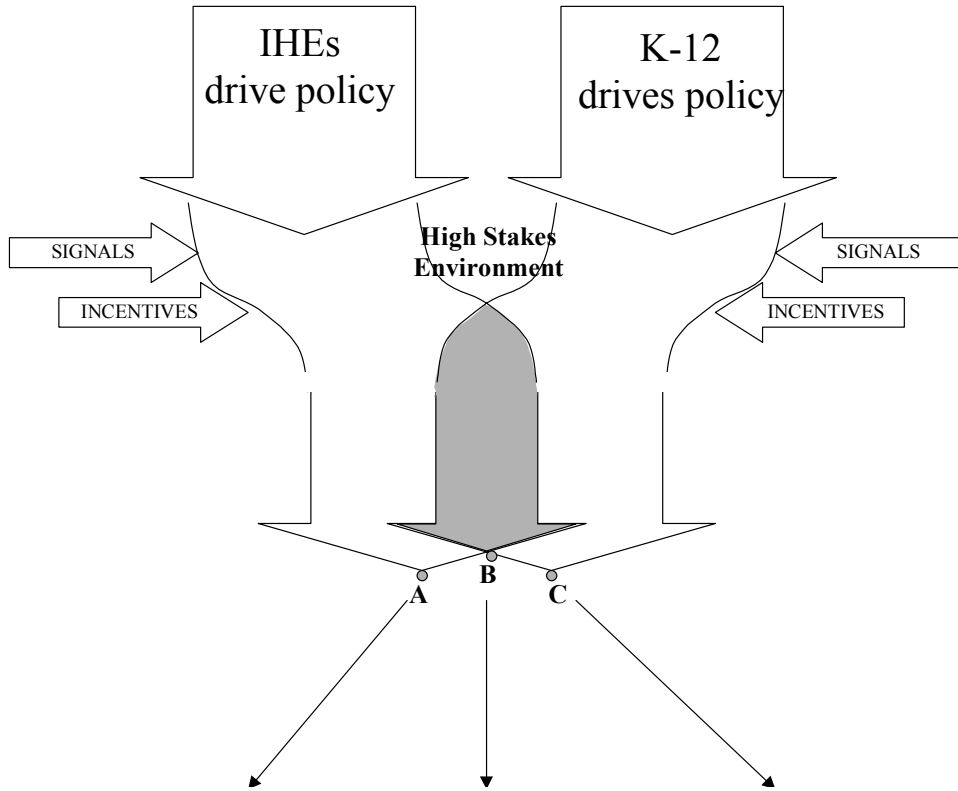
- **Lack of Longitudinal K-16 Data.** Almost no state can answer questions such as: What percentage of students who enrolled in an early childhood education program entered college and what percent graduated from college? Few states can accurately determine their high school drop-out rates. The lack of longitudinal K-16 data leaves a state ill-equipped to improve successful transitions to postsecondary education.
- **Few K-16 Accountability Mechanisms.** No state has implemented a comprehensive K-16 accountability system that includes incentives and sanctions for postsecondary institutions, and mechanisms that connect the levels. K-12 entities across the country face a variety of accountability measures, but postsecondary education has remained untouched.
- **Insufficient K-16 Governance Mechanisms.** In traditional state education systems, no one is held responsible for K-16 reform, and the education sectors often act independently, without regard to each other's reforms or needs. Few states have K-16 governing boards or councils, and when they do, they often have no legislated authority to develop and implement policies.

A central assumption underlying this framework is this: If these aspects of the education systems were reformed, students, their parents, and K-12 educators would receive more consistent signals about college readiness. School cultures would necessarily have to be transformed to accommodate pressures for alignment between the systems. And furthermore, rather than mandating cultural change (in terms of school

cultures) – which is likely untenable -- state policies can send straightforward messages about academic expectations, standards, and processes to schools, families, and students. While such policymaking would not take away the need to have informed purveyors of college knowledge in high schools, we can certainly expect state-level policy alignment and reform to reduce, simplify, and more effectively communicate the amount and kinds of college knowledge students need to make successful postsecondary transitions. Improved data and accountability systems would further help highlight problems and needs throughout systems and schools.

The conceptual framework developed for the Bridge Project captures the dynamics of alignment of the K-12 and postsecondary education systems. The model first assumes that signals and incentives are crucial drivers of students' college knowledge and their actions to become prepared for postsecondary academic success. Moreover, clear, consistent, and appropriate signals/incentives create higher student motivation to meet college level freshman standards (Henry, 2002; Bishop, 2001; Costrell, 1994; Powell, 1996). Given the widespread problem of academic preparation, the focus of the framework is on the 80 percent of high school graduates who aspire postsecondary education institutions that are minimally selective or non-selective in their admissions. Many of these prospective students attend community colleges.

BRIDGE PROJECT - CONCEPTUAL FRAMEWORK



+ is positive influence
- is negative influence

	<u>A</u> Policy driven by IHE's in isolation from K-12	<u>B</u> Policy driven by combined efforts between IHE's and K-12	<u>C</u> Policy driven by K-12 in isolation from IHE's
K-12 stakeholders' understandings of K-16 policies/college knowledge	+ for elite pool of students - for more students - for higher ed since it has less information on K-12 students	+ for more students + mutual reinforcement of understandings and expectations	- for more students enrolling in postsec - for K-12 since less info on higher education policies
K-12 stakeholders' aspirations and actions	- Sends confusing signals that might negatively impact student aspirations.	+ For mutually reinforced signals that could positively impact student postsec aspirations.	- Sending confusing signals that might negatively impact student aspirations.
Student Mastery of College	+ for elite pool of students, who do not	+ for more students completing postsec.	- for more students not aspiring and

Preparatory Content and Skills	rely on high school information.		completing postsec.
	↓	↓	↓
College Preparation/Qualification	+ for elite pool of students	+ for all types of students	- for most students
Post Secondary Success	- Those not in elite pool face increased remediation and drop-out rates and decreased graduation rates.	+ Decreased remediation and drop-out rate and increased graduation rate for more students.	- Increased postsec remediation and drop-out rate and decreased graduation rate for more students.
<ul style="list-style-type: none"> • Frosh Placement and remediation • Drop-out • Graduation rate 			

Most secondary students encounter situations A or C in the framework. That is, they enter an education system within a high-stakes accountability environment and state education policy is primarily driven by either the K-12 or higher education system. Unilateral signals and incentives are sent out without regard to the other sector, resulting in misinformation among students and K-12 teachers and administrators, such as gross overestimation of tuition costs and a lack of knowledge of placement and admissions policies at local colleges and universities. These unclear and mixed signals fail to develop adequate college knowledge concerning access and sufficient preparation to succeed in postsecondary education. “Elite” students -- those already familiar with higher education through their family -- are minimally affected by policy environments driven by either sector because of their familiarity with higher education and because they are less reliant on high schools for guidance and information. The majority of students, however, are likely to have little access to college knowledge, misunderstand higher education policies, and be unaware of their needs for academic preparation. The result is poor preparation, lowered aspirations, increased remediation, and lower college graduation rates.

This framework is normative. It is what we think should happen, given what we witnessed in our sampled schools. What we saw was mostly in Column C. To address change for all students, we posit that reforms should look more like Column B. Examples of these from our research include the Memorandum of Understanding between a district in our California sample with its local state university, and an interdisciplinary high school course taught by high school faculty, and postsecondary (two-year and four-year) faculty and students. There are examples of effective K-16 reforms across the country, such as the El Paso Collaborative in Texas. A major challenge is to ratchet those local and regional efforts to the state level.

It is not difficult to believe that the reality for most students resides in paths A or C. This country's diverse postsecondary institutions – ranging from community colleges to huge universities – have different standards, functions, and goals so they see no collective need to send coherent messages to students. For example, community colleges focus their public messages on access rather than standards for readiness to complete credit level work. Some state flagship universities are very selective, and assume their selection processes will result in adequate preparation. Private institutions are as varied as the public ones in their missions and admissions selectivity. Some private four-year postsecondary institutions have open enrollment to any high school graduate. This diversity results in many different placement exams that students should ideally be familiar with as they prepare themselves for college-level work.

Once students gain entry to a postsecondary institution (and most do), the lack of adequate preparation becomes a major roadblock to finishing their degree (Adelman, 2xxx). They gain entry by meeting certain criteria like high school graduation, being

over 18, or taking some specific academic courses beyond minimum graduation requirements. These criteria, however, are often inadequate for academic success beyond high school.⁶ Moreover, the most disadvantaged students suffer the most from inadequate signals about preparation, because many disadvantaged students attend high schools that do not have an adequate college-going culture, or the resources to provide strong postsecondary academic preparation. For example, if students want to place into college-level mathematics, it is not sufficient for high schools to offer only two or three years of college preparatory mathematics.

Early, persistent, and coherent signals from postsecondary education and K-12 in combination can improve students' academic preparation and success, as posited in Column B, when the systems coordinate, align, and connect their policies affecting postsecondary transitions. We found in earlier work that many students use teachers as one of their primary information sources about postsecondary education, but colleges and universities do little to help teachers learn about admission and placement standards (Venezia, Kirst, & Antonio, 2003). In a coordinated K-16 education system, admission and placement standards would be related to high school standards, teacher education programs would include general information about college admission and placement, and teachers would be as knowledgeable of the relationship between admission requirements and their school's graduation requirements. High school students, as they prepare themselves for high school exit exams, would also be aware of the content and format of admission and placement tests, aiding in their preparation for them. Admission and placement tests would be offered in high schools as a diagnostic measures.

⁶ We do not include analysis of inadequate finances as an issue in non-completion, but it has a significant impact.

To conclude, if state-level postsecondary and K-12 standards and assessments were on a continuum – if students knew what was expected of them when they transition from one system to another, and if they received the proper academic preparation – we propose that problems such as remediation and poor graduation rates would decrease. School culture, as we have described in this article, is crucial component in the preparation of students for college. Misaligned policies can only exacerbate school-level difficulties due to vast differences in state and community resources, and they perpetuate weak college-going cultures and their likely predominance in under-resourced schools.

ⁱ See Carnegie Foundation for the Advancement of Teaching. 2001. The Carnegie Classification of Institutions of Higher Education, Menlo Park, California. Researchers checked the Carnegie classifications with College Board data concerning the percentage of applicants accepted by postsecondary institutions, and with data in Mortenson, T. 1998. “Freshman-to-Sophomore Persistence Rates by Institutional Control, Academic Selectivity and Degree level, 1983 to 1998,” in *Postsecondary Education Opportunity*, Oskaloosa, Iowa.