

August 6, 2003

Improving Preparation for Non-Selective Postsecondary Education: Assessment and Accountability Issues

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The biggest student preparation problems are evidenced in the approximately 80% of the students who go to minimal or non-selective institutions including community colleges (Adelman, 2001; U.S. Department of Education, 2001). These students are accepted because they are 18 years old or have passed the required high school courses to be admitted. These institutions may require SAT, but rarely use it for admissions decisions (Carnegie Foundation, 2002). More than 50% of their students are in remediation, and their completions rates are very low (American Council on Education, 2002). The students who attend these institutions face many obstacles. High school counseling resources are minimal, parents know little about higher education, and high school teachers in the middle and lower ability groups do not provide much college knowledge. Since admission is certain, these students initial hurdle and de facto key academic standard is a placement test once they enroll at postsecondary education.¹

Baltimore City Community Colleges (BCCC) provide an extreme example, but illustrates the depth of the problems (Abell Foundation, 2002). Of 1,350 first-time students who entered BCCC in Fall 1996, only 13 had graduated or transferred to a bachelor's degree granting college four years later. Ninety-five percent needed remediation, and 45% required three math courses to reach the credit level. The math placement test, Accuplacer, was not matched to Maryland state high school math standards that emphasized "authentic problem solving" (e.g. word problems

¹ See Bridge Project website at <http://www.stanford.edu/group/bridgeproject/>

with applications to real life scenarios). The BCCC placement exam included content beyond Algebra 2.

Improvements in the K-16 system require simultaneously looking down from higher education to secondary schools as well up the pipeline. For example, the most relevant four-year schools for Baltimore high schools are Choppin State, Morgan State, and the University of Baltimore, not the selective schools that receive most of the media attention. What signals do these types of schools send secondary school students about what they need to know and be able to do for completion of their college programs? Bridge project interviews reveal many students believe their high school graduation requirements are sufficient, and they have scant information on placement standards that direct them to postsecondary remediation (Kirst, Venezia, et al., 2001; Education Trust, 2003).

While the reality for students is that 70% will likely continue past the secondary years, federal, state, and institutional policies continue to reflect a significant separation between K-12 and postsecondary education. The current organization of secondary schools and postsecondary institutions is such that communication and information dissemination between levels is difficult. For instance, students—especially those who are economically disadvantaged or whose parents did not attend college—often do not know what colleges expect of them in terms of meeting their admission or placement requirements. Many students believe that nonselective four-year institutions and community colleges do not have high academic standards. This is not the case as is evidenced by the widespread use of placement tests for access to credit-level courses. Also, policies across the segments – particularly those concerning the transition from high school graduation to college admission – are fragmented and confusing. Students who attend broad access institutions usually work part-time and may have family responsibilities.

Education standards have swept across the U.S., engulfing almost every state. Forty-nine states (all but Iowa) have created K-12 academic content standards in most academic subjects. At the state level, there is substantial progress in clarifying: 1) what students must be able to know and to do in the K-12 grades, and 2) how to align standards, assessments, textbook selection, and accountability measures at the K-12 level. A gaping hole in this reform strategy, however, is the lack of coherence in content and assessment standards between higher education institutions and systems and K-12 systems. Unless we close this standards gap and align K-16 policies, students and secondary schools will continue to receive a confusing array of signals and will not be able to prepare adequately for higher education. The current K-16 scene is a Babel of standards, rather than a coherent strategy.

The roots of this problem go very deep in the history of American education standards policy. The U.S. created two separate mass education systems (K-12 and universities and colleges) that rarely collaborated to establish consistent standards. Universities provide some good reasons why they pay little attention to K-12 standards or assessments. Universities and college emphasize that they were not involved in the process of creating or refining K-12 standards. Moreover, universities and colleges are concerned that state K-12 standards keep changing because of political or technical problems. The K-12 assessments are not evaluated to see how well they predict freshman grades (although this is not difficult to do). Postsecondary leaders hope that the SAT and ACT will make adjustments to accommodate these new K-12 standards, and feel more comfortable with these two assessments they know and can influence.

These disjunctures will be hard to fix unless there is an institutional center for K-16 reform. Very few states have any policy mechanism that can deal with K-16 standards alignment. Higher education coordinating bodies do not include K-16 standards alignment

within their purview. In short, there are few regular opportunities for K-12 educators to discuss standards issues with college and university faculty or policymakers. The professional lives of K-12 and higher education proceed in separate orbits. In some states, the governor's office is the most logical place to put these fractured standards systems together, but higher education leaders want to guard their political independence from gubernatorial and legislative specification of admissions criteria. Because each state has a distinctive K-12 standards and assessment system, it is not clear what can be done nationally. President Clinton's advocacy of a national voluntary test died after protests about states' rights and local control of K-12 education.

Improving Signals and Incentives

Signaling theory suggests that streamlined and aligned high quality and appropriate content messages have a positive impact on students' learning and achievement, and that mixed signals—the current state of affairs—have the opposite effect (Rosenbaum, 2001). Crucial aspects of appropriate signals and incentives are simplicity, clarity and consistency (Henry, 2002). Consistency is enhanced when signals, incentives, and institutional policies are aligned—for example, the alignment of format and content of state and local student assessments with SAT I. Incoherent and vague signals and incentives sent to secondary school students causes inadequate student preparation for postsecondary. Minority students are often placed in low academic high school courses and tracks that decrease both motivation and preparation (Oakes, 1999).

Rosenbaum found that in the Chicago area counselors do not want to give low-achieving students negative information about their future prospects, so they advocate college for all without stressing necessary academic preparation (Rosenbaum, 2001). Since it is easy to enter so many four-year and two-year schools, there are scant incentives to work hard in high school

(Conley, 1996). Once students enroll in broad access institutions they face challenging placement exams, faculty expectations, and general education/graduation requirements that they often did not know about in high school. They end up taking remedial non-credit courses that better signals may have prevented, such as the 60% failure rate of placement exams by first year students entering the 19-campus California State University system from high school.

A conceptual framework can provide an analytical lens for improving K-16 outcomes. A key issue is whether K-12 exit-level and postsecondary entrance-level signals and incentives are delivered to students in isolation from one another, or through interaction and reinforcement. Three possible scenarios for signal delivery are postsecondary education drives policy (Option A), K-12 drives policy (Option C), and combined efforts of K-12 and postsecondary education drive policy (Option B). . The preferred delivery is Option B.

Combined efforts by postsecondary education and K-12 will improve college knowledge that is essential for student aspiration and preparation. College knowledge is acquired and possessed unequally among students and families of different social classes and racial/ethnic backgrounds. College knowledge by secondary school students and parents includes knowledge of tuition, curricular requirements, placement tests, and admission procedures and selection criteria. A high school's collegiate preparation culture cannot be fully measured via simple, visible, or discrete indices such as standardized test scores, honors and advance placement courses, and postsecondary placement. Collegiate culture also encompasses the less tangible, more elusive qualities that can best be described through narratives that reveal the sustaining values or ethos of a high school.

Signals and incentives sent along either through a separate postsecondary education or K-12 system will result in less student preparation, college knowledge, and postsecondary

outcomes. Strong signals have positive impacts on desirable outcomes, while confusing or weak signals provide a negative influence. Combined efforts between K-12 and postsecondary especially help disadvantaged students, while honors and AP students can succeed with less K-16 cooperation. Teachers can be a crucial source of college knowledge, but students in non-honors courses have less communication about college (Kirst, Venezia, Antonio, 2004). Clear and consistent signals are related to positive outcomes such as less remediation and more completion of a student's desired postsecondary program (Henry, 2002).

Joint efforts between postsecondary and lower education are crucial in creating positive outcomes for more students, particularly those from economically disadvantaged families, families in which a parent did not attend college, and those students who face stigmatization and racism as they proceed through school. If there is no K-16 interaction and reinforcement of signals, the more advantaged students will receive ample signals and incentives to prepare for postsecondary education. But the more educationally disadvantaged high school graduates will enroll at lower rates, require remediation, and experience lower postsecondary completion rates.

Improving K-16 Transitions

There are no organized groups that lobby for improved L-16 linkages, even though state capitols are overflowing with education interest groups. K-16 is on the margins of concern of all education levels, so no one loses a job for poor K-16 linkages. Rarely do states or localities provide accountability systems or data on how students fare in postsecondary education once they leave high school.² This is despite a recent flurry of state and federal K-12 accountability policies.

² For an exception, see Southern Regional Education Board, "Reporting on College Readiness" (Atlanta: SREB, 2001).

Federal K-16 efforts and funding are overwhelmingly focused on student financial aid, but not postsecondary persistence and completion. Federal programs such as GEAR UP and Trio are some of the numerous fragmented outreach programs that help some students, but suffer participant attrition, impact a small number of students, and know little about long-term outcomes for students.³ Most outreach programs focus on selective institutions, rather than on broad access institutions where the greatest problems exist. It is unlikely that outreach programs can create systemic reform across K-16 sectors, but they can and do help some qualified students gain access to higher education. In sum, public policy needs to move from a focus on patching up and ameliorating the effects of the current system, to a fundamental K-16 systemic overhaul.

Crucial Policy Questions for K-16 Reform

A first strategy should be for K-16 educators and policymakers to understand their own policies and needs by asking themselves some fundamental questions. These questions are congruent with our conceptual framework that has better student results when higher education and K-12 are sending similar reinforcing signals as early as middle school. Moreover, educators and policymakers should conduct a K-16 policy audit in order to understand the scope and alignment of their current policies. These key questions include:

- Are the K-12 academic content standards similar or dissimilar to the academic content in first year courses at the college and university level?
- Does your state K-12 assessment ask students to know and do the same things that are required by your state's public universities for admission and placement?

³ See National Postsecondary Education Cooperative, "Paving the Way to Postsecondary Education" (Washington, D.C.: U.S. Department of Education, 2001).

- Does your state have a statewide higher education placement examination? If not, how do individual colleges' tests relate to each other or the content of the state's K-12 assessment? How can your state consistently assess its needs regarding student remediation?
- Do your schools have a sufficient number of counselors whose main role is to advise students about college options and help them navigate through broad access institutions that serve mostly part-time students?
- Do all students have early, repeated access to college preparation information?

One effective process for examining these issues is the Standards for Success Project (S4S) that compares expectations of college freshmen teachers with state K-12 standards and assessments. The S4S Director, David Conley, describes their process:

In a series of meetings on university campuses across the nation, over 400 faculty and staff who teach or advise freshmen described what is expected of students in university courses in key academic disciplines including English, math, science, social sciences, foreign languages, and the arts. Many participants also contributed literally hundreds of samples of student work from their classes; work that illustrated how good is “good enough” in those courses. Such examples help to connect key knowledge and skill statements with tangible levels of performance. Faculty also contributed course outlines from dozens of freshman entry-level courses and reviewed state standards documents to identify the specific standards that align most closely with their own expectations for students.

One way to enhance preparation is to enroll all students in Algebra I and II and other college preparation courses that predict postsecondary nce and degree of completion. Such a policy would allow parents to remove students from a required college preparation curriculum through a parent permission form. If no action is taken by the parents, the student continues in a college preparation curriculum during all years of secondary school. Texas has implemented this college preparation policy called the “default curriculum.” This recommendation, however, should be accompanied by high schools and postsecondary

education working together to develop a broader array of college preparation courses. One example would be a physics option that is integrated into an applied mechanics course. The “default curriculum” in Texas merits careful evaluation of its impact and unintended consequences.

Teachers can be a key source of college information, and were as helpful as counselors in postsecondary education planning (ACT, 2002; Venezia, Kirst, Antonio, 2003). Counselors will not be available to work intensively with students who do not go to selective postsecondary institutions. Consequently, teachers need to be provided with the knowledge and the time to play a larger role in postsecondary information. Counselors and teachers should work out a collaborative relationship concerning imparting college knowledge.

Outreach programs can be a useful college knowledge component, but several basic questions arise:

- Do outreach programs connect universities and community colleges with local schools and districts? Are these outreach programs coordinated with national, state, and nonprofit outreach programs? Are these outreach programs evaluated using comparison groups of students who did not participate in outreach? Do these outreach programs include broad access postsecondary education?
- Do dual enrollment and early college programs in high schools include more students than those on a path for selective postsecondary education?

Higher education data systems contain crucial gaps because they cannot follow students on a longitudinal basis. For example, California does not have individual student identifiers, so it cannot track college enrollment trends, progress in college, or relate college success to preparation patterns. States need to ask questions such as:

- Can your state agencies (K-12, community colleges and higher education) link their databases in order to assess needs throughout the K-16 continuum?
 - Can policymakers and researchers tell whether there are inequalities in terms of who enters and graduates from college?
 - Can they address issues of college preparation by tracking student success in higher education by district or by school?
 - Can your state measure persistence rates among different types of students, and determine which students drop out of college and when they do so.

These data elements need to be an integral part of a comprehensive K-16 accountability system including such concerns as:

- Do you have a statewide K-16 accountability system? Does it hold high schools accountable for offering college preparatory work, including Advanced Placement courses? Does it hold higher education institutions accountable for graduating its students?
- Is there a stable/permanent entity or mechanism that will allow K-12 and higher education stakeholders to work together and overcome fragmentation concerning policy alignment, faculty interaction, and K-12 information systems?

These questions should be deliberated through a long-term state and regional institutional structure within large states that overcomes the traditional separation of education governance into a K-12 governing board and one or more higher education boards. State funds are needed to allow activities, deliberation, and projects that cut across K-16 boundaries. K-16 education policymakers and practitioners from formerly separate higher and K-12 departments

can use the questions and issues raised above to work together for policies and common goals. This K-16 process must move beyond administrators and policymakers, so that the divide between high school teachers and postsecondary faculty can be broken down. In large states, implementation could be enhanced if a regional basis is used for K-16 policy linkage

The Senior Year Problem

Students who slack off during their senior year of high school is a condition so common in the United States that it has become known as "senior slump" or "senioritis." But most of these students are merely playing the hand that's been dealt them. High school seniors who take a break from tough academic courses are reacting rationally to a K-12 system, and a college admissions process that provide few incentives for students to work hard during their senior year. Neither K-12 nor postsecondary education has an academic purpose for the senior year other than advanced placement.

In effect, the education standards reform movement has written off the senior year, and so have our colleges and universities. For instance:

- The K-12 accountability movement has no strategy for assessment in the senior year. Only New York's statewide K-12 assessment includes subject matter from the senior year; most other state assessments extend only to the 10th grade level. Grade 11 state tests are most useful for postsecondary purposes.
- The college admissions calendar encourages students to excel in their sophomore and junior years, but provides few incentives for them to study hard during their senior year.
- Since the content of K-12 state tests differs significantly from the content of college placement tests, many students learn only after enrolling in college that

their senior year in high school did not prepare them adequately for college-level work.

Senior slump appears to be somewhat unique to the United States. In many other countries (e.g. England, France, Germany, Australia), students in their senior year of high school must pass crucial final examinations. For the 70% of high school students who will be moving directly into postsecondary education, senior year should be re-conceptualized to improve academic preparation for college placement exams and college-level coursework, with emphasis on the skills and knowledge that are components of a general or liberal arts education. Students should understand that access to higher education—college admission—is only one aspect of their senior year, not the sole goal. Moreover, high schools should link their senior year curriculum to the general education requirements for the first year of college or university, or the technical requirements of a community college vocational certificate. Colleges should set explicit standards for senior-year performance in all courses and withdraw admissions offers if those standards are not met. Students should be required to take a specific number of academic credits during each semester of their senior year. Since students often forget math taken during their high school junior year, colleges that require math proficiency for graduation should include a senior-year math course in their admissions requirements. (Many states require only two years of math for high school graduation.)

The federal government's 12th Grade NAEP assessment should focus on college readiness including the skills and knowledge to succeed in postsecondary education. NAEP performance levels for senior year should be set at levels above and below postsecondary remediation.

Recommendations for Change in College Admissions and Placement Policies

Colleges and universities should make sure recommended courses for high school students provide adequate preparation. The TIMSS study of course taking patterns for math, physics, chemistry, and biology found that college preparation students had 70 patterns, and no pattern was taken by more than 15 percent of the students. The most common course pattern for general ed students includes no chemistry or physics. Only a fourth of the general education students took biology and algebra II. TIMSS found a “bewildering array” of course titles for th grade mathematics.⁴ This may be a particular problem for community colleges.

Colleges and high schools should cooperate in setting formulas for how the high schools are to calculate grade-point averages and class rankings. (Currently, high schools in some states can elect to include or exclude grades from nonacademic courses in their computations.)

Colleges should accord appropriate weight for honors and AP courses, and performance in senior-year academic courses should be an important component in computing class rank.

Rethinking Secondary and Postsecondary Curriculum

More fundamental curricular reform could be stimulated by re-conceptualizing general education as a curriculum that spans the last two years of high school and the first two years of college. A common problem faced by those involved in initiatives to align standards of college admission and placement with performance-based K-12 standards is that the crucial years of school to college transition, Grades 11-14, are devoid of clear and sequential standards for students learning.⁵ Most state standards for high school graduation are anchored in 10th grade (or lower) level content. Some students spend the first two years of college fulfilling a smorgasbord

⁴ William H. Schmidt, “Too Little, Too Late: American High Schools in an International Context,” in Diane Ravitch (ed), *Education Policy: 2002* (Washington, D.C.: Brookings, 2002).

⁵ See the Woodrow Wilson Foundation, National Council on Education and the Disciplines, Washington, D.C.

of general education requirements, and may not confront real standards until they begin work in their majors. In order for secondary schools to improve student preparation, postsecondary institutions must help them by rethinking their standards, curriculum, incentives, communication strategies, and K-16 faculty relations, and focus in the first year. Retention should be the overwhelming focus of first-year college assessments, and go beyond quantitative data to include diagnosis of learning problems. Some four-year universities invest fewer resources in their first year than the junior and senior year.

Another idea is to design accountability systems for both K-12 and higher education to include outcomes that each system cannot possible deliver on it own. Higher education could be held accountable for decreasing the number of freshman requiring remediation. Haycock points out that if postsecondary mathematics departments taught only the mathematics not also taught in high school, 80 percent of the credit hours of postsecondary mathematics departments would be lost.⁶ There are powerful disincentives in terms of budgets and students for postsecondary mathematics departments to reduce remediation. But there are some promising practices as well. For example, in Oklahoma, eighth graders take ACTI Explore and tenth graders take a PLAN assessment that tests English, math, need for postsecondary remediation, increased college and university persistence, and improved time to degree rates for postsecondary students.

Public Opinion Supports the Status Quo

Any of the changes recommended in this chapter, however, confront the publics' high approval rating for the current performance of postsecondary education, and satisfaction with status quo arrangements.⁷ Colleges and universities earn a respectable "B" in a 2001 nationwide random sample, while secondary schools were a full grade or more lower. The publics'

⁶ Kati Haycock, "Why Is K-16 Collaboration Essential to Education Equity?" (Washington, D.C.: EdTrust, 2001).

⁷ See National Center on Postsecondary Improvement, "The Public," *Change*, September 2001, pp. 23-38.

collective advice is that colleges and universities continue to focus on what they do best. According to public opinion, college students themselves who are adults, bear a considerable share of responsibility for succeeding in higher education. The public feels generally assured about the performance and quality of higher education's academic performance. Only 12 percent of the public would raise entrance standards to postsecondary education.

While the public believes that college students are less prepared in 2001 than a decade ago, only 11 percent hold postsecondary institutions responsible for students' failure to persist. Half of a national sample thinks students are to blame, and another 40 percent think it is a failure of high schools to prepare students for college level study that causes them to drop out. Very few respondents think the presence or absence of K-16 services such as better counseling or higher education working with public schools is a primary cause of student success or failure. Moreover, a majority of the public thinks students of color have about the same opportunities as white, non-Latino students. This public opinion poll concluded "there is no mandate for change – or even a suggestion of what kind [of higher education] change would prove necessary."⁸ The public message seems to be "stay the course." A major public information campaign is needed to highlight the lack of persistence and completion in broad access postsecondary education.

Toward Improved Public Policy

There are some powerful currents for K-16 policy changes. Governors are already in the forefront, but the fear of state-level control of higher education limits their capacity for acting alone to improve policy. A broad coalition is needed that includes university and college staff, trustees, civil rights groups, teachers unions, and higher education faculty. A national policy issue network similar to the one developed in the 1970's by the Ford Foundation for school

⁸ Ibid, p. 36.

finance is part of the solution.⁹ Such a network needs to include added components such as students, faculty, administrators, advocacy groups, policy analysts, and politicians. It can utilize the K-16 accountability information system recommended above as a starting point.

K-16 reform and students' successful completion of postsecondary education needs to be part of the social charter of the American people that emphasizes the public purposes of postsecondary education, rather than just the private benefits from higher education. In return for financial support of postsecondary education, the public has expected postsecondary institutions to provide widespread and affordable access, and academic results that enhance an educated citizenry, assist the disadvantaged, and contribute to economic development. But the social charter is a two-way street where postsecondary expects societal support for academic values such as freedom of inquiry.¹⁰ The public, however, has every right to expect improvement of higher education's inadequate persistence and completion rates. The preceding recommendations will help improve postsecondary outcomes and buttress the social charter. The long-term support of higher education may rely upon the continuation of a two-way agreement with public support of higher education in return for better students outcomes. The aspirations of students and parents are moving beyond access to a seat in higher education to completion of a community college program or a four-year degree.

⁹ See Michael W. Kirst, Gail Meister, and Stephen Rowley, "Policy Issue Networks," *Policy Studies Journal* 13(2): 247-264, 1984.

¹⁰ Patricia Gumpert, "Built to Serve: The Enduring Legacy of Public Higher Education" in P. Altbach et al. (eds), In Defense of American Higher Education. (Baltimore: Johns Hopkins, 2001).

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