Like many states, California is highly agitated by the academic problems that university freshmen experience. Students who score below a specific level on standardized tests may not proceed in regular freshman English and math courses, and an uncomfortably large number of first-year students require some form of remedial education. For example, about half of the first-time freshmen in the 22-campus California State University system who were tested in fall 1994, required remedial work in either English or math.

There is much hand wringing and blame shifting about the causes of this expensive remediation. Universities blame high schools for low standards; secondary schools blame elementary schools; and elementary schools blame parental neglect. Recent California legislative proposals include one to deduct part of the cost of university remedial courses from state aid to high schools.

In my view, many secondary schools and students are caught in a no-win situation which is caused in part by the fact that prospective university students receive conflicting signals from universities about what knowledge is most worth possessing.

For example, California students are confronted with different types of external admissions exams that do not have the same content approach. These exams include the Preliminary Scholastic Assessment Test (PSAT), Scholastic Assessment Tests (SAT I and SAT II), American College Testing Program (ACT) exams, placement tests given by the University of California and by Cal State, the Golden State Exam, and the Advanced Placement (AP) exams.
None of the university admissions exams is coordinated with the California State Board of Education's curriculum frameworks. And these various tests have different purposes such as preparation for college, freshman placement, prediction of university performance, and statewide K-12 standards assessment.

Placement tests given by Cal State are a classic example of the problem. These exams are given after students graduate from high school and have been accepted by a Cal State campus, so students have no way to specifically prepare for them. Students with low scores must take remedial or "bonehead" courses that do not count toward university graduation.

The Cal State math multiple choice placement test covers algebra, geometry and algebra II (48 questions are algebra, 12 are geometry). The test, which is devised by a committee of Cal State professors, is a mismatch with the State Board of Education math framework that stresses math problem solving rather than multiple choice.

High school students have no incentive or way to prepare for this crucial placement test. They are not informed about the test content before they take it, nor are they provided with an analysis of their performance after completing it. Many students take prep classes for SAT I, but not for the UC or Cal State placement exams.

SAT I covers algebra and geometry, but also includes ratios and data interpretation that are not stressed on Cal State placement tests. An SAT score above 550, however, exempts Cal State entrants from the necessity of taking the Cal State placement tests.

The California State Department of Education also administers a test—the Golden State Exam—that is based on the state's math framework. Last year, more than 500,000 California students took the exam, which offers "honor" and "high honor" awards for outstanding performance, in the hope that universities and employers will recognize their achievement.

The Golden State Exam relies much less upon multiple choice than Cal State's placement exam or SAT I, and it stresses probability theory in addition to algebra and geometry. Critics of the exam believe it should have more algebra.

To determine freshman English placement, the University of California uses a writing sample, but Cal State relies solely on a multiple choice exam that is different from SAT I or SAT II. Moreover, each community college in California gives its own distinct placement exam.
To make matters worse, most high school teachers and counselors are not acquainted with UC, Cal State or community college placement tests. And high school teachers have no way of learning about their students' results on UC or Cal State placement tests.

Neither SAT nor Cal State placement tests are designed to diagnose student weaknesses so that high school courses can be revamped to better prepare students for admission. Nor does Cal State re-administer its placement tests to a representative sample of students who have completed Cal State remedial course work to determine the magnitude of skill improvement over time as measured by placement tests.

The lack of standardization among the different exams has resulted in an almost dizzying array of variations in form and content. While SAT I does not follow specific course sequences like algebra I, II and geometry, both the UC and Cal State placement exams do.

SAT II—a curriculum-based exam with major differences from Golden State and the universities' placement exams—does follow course sequences, but Cal State does not require this exam, and does not even request the scores. SAT II is required by UC, but is not a major factor in admissions.

SAT II predicts freshman grades as successfully as SAT I, and conceivably could be used for placement in freshman classes. At this point, however, SAT II is just another exam approach in this cluttered and confusing landscape.

An added challenge for California is the fact that the state must contend with a large population of minority students. In 1993, nearly 25 percent of Cal State freshmen were non-native English speakers, and most of these failed the Cal State placement exam in English.

Although California has a variety of outreach programs for underrepresented minority students, these programs often are aligned with the different placement exam systems of UC or Cal State. For instance, one of the most promising outreach programs, called AVID, prepares students for the UC placement exam but not for Cal State's. It would help outreach efforts if the two systems could work out their conceptual differences for placement.

Further, these external exams may not be aligned well with the tests teachers devise for major review phases in their courses. Universities send so many different priority content signals to secondary schools that it is difficult for teachers to effectively coordinate course content with the universities' curricular expectations.
California universities have promulgated long and detailed curricular content expectancy statements for each subject area, but there is no clear linkage for teachers between these statements and the various university entrance or placement exams. It is highly unlikely that the Cal State placement exam, for example, is testing the math content taught in California secondary schools.

Some basic new policies would help clarify this confusing situation. Cal State, UC and community college placement tests and standards should be aligned with each other and with the California Commission on Standards and Performance curricular standards and a new state K-12 assessment.

After these standards and placement exams are coordinated, students should have the opportunity to take the exams in high school as soon as they complete their three-year high school math requirements to qualify for college admission. Currently, some students take university placement exams a year or more after they take the math courses in high school.

If high school students fail a placement test, they should receive specific information on their strengths and weaknesses along with classes to address deficiencies. Cal State placement tests are "one shot," but student preparation would improve if they could take the exams more than once.

Current policies which hinder collaboration between higher education and high schools in devising courses that prepare students for university success should be changed. Moreover, parents often are unaware that failure on placement tests results in increased time and expense for university completion. Consequently, parents need to be informed about placement rates.

The national debate about standards and systemic reform has been conducted mostly in isolation between K-12 reformers and university admissions policy makers. Most of the discussion focuses on statewide assessment at various grade levels, and on K-12 curriculum. If there are to be clearer and more consistent signals about what knowledge is most worth possessing, then the linkages between K-12 reform and universities must be strengthened.