

Improving and Aligning K-16 Standards, Admissions, and Freshman Placement Policies

By Michael W. Kirst
Stanford University

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K-16 Standards and Policies: Misalignment and Unclear Signals

The effort to enact educational reform at every level of the U.S. system is widespread. Institutions of higher education, states and local school districts, and federal public policy makers are all working to transform the educational process across the nation.

These reform efforts are all linked by a singular purpose: to improve student preparation and performance within the classroom and beyond. But while they share a common goal, there is little, if any, coordination among initiatives at different levels within the educational system. Most are being undertaken by separate entities, agencies, and actors (all with different approaches and expected outcomes).

Even if alignment across efforts was somehow achieved, there is no guarantee that the content of reform would reflect high-quality standards and assessment tools. For example, there is no real agreement on how to improve student assessment for university success in order to make it more authentic. In a rush to reach consensus, reformers might settle for the lowest common denominator (Baxter and Shavelson 1996). It is no improvement on the current situation if K-16 standards are aligned around concepts that do not encourage teaching for understanding. At the same time, a stream of related problems continues to confound the issues, including shifts in affirmative action that are causing complex and controversial changes in admissions policies, further complicating the transition from secondary to postsecondary education for minority and immigrant students.

The unfortunate result of this confluence of problems is that many emerging K-12 reform policies are moving secondary and postsecondary education in disparate

directions, causing the existing gulf in the preparation of students for college to widen, and creating a host of new disjunctures within the system. The bridge that once led students across the secondary-postsecondary divide has been weakened by conflicting concepts and opposing forces, and it is becoming increasingly unclear how many of the nation's students will be able to negotiate a successful path from high school to college.

What's the Problem?

A review of what we know and don't know about secondary and postsecondary standards and policies points to troubling trends, which threaten to potentially undermine the preparation of American secondary students for college education. The problems have manifested at four critical points within the system:

- the lack of authentic measures for student assessment regarding college preparation
- the misalignment between secondary student preparation and college admissions and placement standards
- the placement of many students in remedial classes
- the low retention and completion rates of students of many public universities

These conceptual disagreements and disconnections have resulted in mixed signals and confused incentives for secondary schools and students, and call into question the ultimate effectiveness and quality of the nation's numerous educational reform efforts. For example, will the differing thrusts of emerging K-12 standards, curricula, and assessment tools and college admission/placement policies hinder, rather than foster, improvements in student preparation and performance? In other words, will secondary students ultimately be prepared according to a new set of requirements that are substantially different from the standards that college admissions and placement policies actually use? Why is it that secondary accreditation policies—which, ironically, were initiated at the turn of the century by postsecondary institutions—rarely affect the preparation of secondary students for college? When secondary teachers alter their pedagogical approaches to align with new K-12 performance-based assessments, will students be prepared to perform well on the standardized tests that determine college admission? On the other hand, will the phenomenon of high school grade inflation lead to an increasing reliance by higher education institutions on SAT/ACT multiple-choice assessment?

While colleges and universities seem to be ignoring the changes occurring below, K-12 reformers also have failed to look up. The effect of reform on college admissions has not been considered in legislation that calls for state-level reform of secondary and elementary education (Conley 1996a). This conflict and misalignment has confounded the policies that send signals to students and schools about what knowledge is necessary for success in the postsecondary classroom.

This situation is particularly troubling for minority and immigrant students, as well as those whose families are low on the socioeconomic ladder. The current array of policies send vague, confusing, and mixed signals about what is needed for university admissions and freshman placement. Many of the parents of these students did not attend college, are unable to help prepare their children for postsecondary education, and cannot afford to hire the services of admissions counselors or pay the fees of SAT/ACT preparation courses. Current changes in affirmative action policies and low minority SAT scores only exacerbate the problem. Initial case studies conducted for the National Center for Postsecondary Improvement (NCPI) indicate that grading practices often try to satisfy multiple needs and audiences—and that university admissions may be relegated a low priority among these competing factors.

Slowing the Pace of Reform

The disjuncture between university and K-12 standards is at the center of a pervasive dynamic that many believe has slowed the pace of needed reforms. On the one hand, postsecondary institutions are waiting to revise their admissions standards until they see the shape and scope that secondary reforms will take. On the other hand, many states and school districts are reluctant to pursue reforms more aggressively until they are sure that higher education admissions processes will accommodate their students. A vicious cycle has arisen: because colleges are holding back, states and school districts are uneasy about proceeding with reforms, fearing that their students will run afoul of traditional admissions processes.

Parents, too, have become a factor in the reform equation, as noted by Larry Rubin, a senior academic planner for the University of Wisconsin system. He says, “The reform movement is trying to accommodate different teaching and learning styles. My concern is that if colleges don’t acknowledge these types of approaches, parents won’t allow their kids to take advantage of those things, and it could have a chilling effect on reform.”

An Emphasis on Grade Prediction and the Grade Inflation Phenomenon

Another problem with admissions and placement standards involves what some consider to be an over-reliance on grades to predict student success in college, and the resulting inflation of grades to help students compete for college admission. Historically, separate university admission standards, like the SAT/ACT have been justified by the fact that they tended to predict first-semester freshman grades—a strategy that made sense when larger proportions of an entering class flunked out in their first year. But, now, many public higher education institutions retain 70 percent or more of their students for several years, and the reliance on predictive factors for first-term freshman has become an outmoded concept. Given this recent change, we must ask: What admission/ placement policies are the best predictors of university completion?

The emphasis on using grades to determine student admission has encouraged grade inflation at both the secondary and university level, undermining the effectiveness of traditional predictive rationales for university admissions policies. For example, a 1996 UCLA freshman survey found that 31.5 percent of first-year students reported having an “A” high school average, compared to 28.1 percent in 1995 and 12.5 percent in 1969 (Astin 1996). As grades have risen and AP courses proliferated, institutions have attempted to correct the problem by using “weighted” grading systems, in which some students achieve GPAs that exceed 4.0. The absolute value of these objective measures of performance for evaluating students and predicting their success in college is becoming more and more questionable.

Widespread Remediation

Another problem with admissions standards and “objective” measures of freshman placement is the high percentage of freshman matriculants who are required to take remedial courses. University placement exams gauge whether students need to enroll in these courses, but there is little uniformity in the tests themselves. According to a study conducted by the Southern Regional Education Board, nearly 125 combinations of 75 different tests (including the SAT and ACT) in the areas of reading, writing, and math are currently used to place students (Abraham 1992).

While entering first-year students know very little about the content of most university placement exams, students’ confidence in their academic abilities is at an all-time high (Astin, 1996). This lack of knowledge comes from unclear, uncommunicated, and/or inconsistent information about initial freshman placement

standards and expectations. Such “mixed signals” are manifested in poor placement test performance and increased need for university remedial education. But many college administrators believe the current system works and does not need to change.

The extent of remedial education at the college level in the U.S. is staggering, as demonstrated by the following statistics from a 1996 NCES report:

- In 1995, nearly all public two-year institutions and 81 percent of public four-year institutions offered remedial courses.
- For private institutions, the percentage was lower, but still significant: 63 percent of private two- and four-year institutions offered these courses.
- In the fall of 1995, 29 percent of the nation’s first-time first-year students enrolled in at least one remedial reading, writing, or mathematics course. The percentage of first-year students at public two-year institutions was 41 percent; at private two-year institutions, 26 percent; at public four-year institutions, 22 percent; and at private four-year institutions, 13 percent (NCES 1996).

A major cause of this remediation is the incoherence and lack of clarity in current university admissions and placement policies. For example, freshman placement exams are devised by university departments without regard to university admissions or secondary school standards. The tendency of some state legislators to blame remediation on high schools—and to penalize them financially for remedial students—is an oversimplification of causes. In addition, numerous studies demonstrate that students with lower socioeconomic standing have less of the information and resources needed to pass the admissions and placement hurdle.

Conflicting Conceptions of Student Assessment and Questions of Authenticity

Different assessment concepts and forms stress different cognitive abilities and preparation for universities. More states are using writing samples in their K-12 assessments. By contrast, neither the SAT I nor ACT contains a writing sample; instead, both use strictly multiple-choice formats to test writing ability and attainment. The emerging divide between student assessment and resulting instructional strategies in the K-12 arena, and the focus on standardized, multiple-choice tests for college admission and placement poses a serious misalignment in how students learn and are assessed at the K-12 level and how they are evaluated and placed at the college level (Newmann et al. 1995).

The Current Research Context

Although the improvement of student academic performance has been on the policy agenda for nearly two decades, the focus of most policy reform and intellectual discussion has, until recently, focused on the processes and structures *within* schools. Though this school-level focus has produced some successful reforms, many schools have proven to be intractable to change, and concerns over student academic performance remain prevalent in both the research community and the public.

It is in this environment that researchers and reformers have begun to look for answers, moving beyond the local school to the broader policy system in which schools operate. Out of this exploration has emerged an increasing recognition that these larger structures also matter—that how the educational policy system is organized and governed strongly influences the behavior of schools, their teachers, and their students. A significant portion of recent thought in educational policy has turned its attention to describing the structure of the current system and to identifying those organizational problems that negatively affect teaching and learning (CPRE 1996).

Two strands of work concerned with the structure of the educational system have important implications for higher education. The first involves issues of policy coherence. Many researchers have argued that current policies within and across secondary and higher education do not match in a meaningful way—or worse, often cancel each other out. Critics of policy incoherence call for educational policies and institutional arrangements that send clear and consistent messages and expectations to schools and students about the importance of academic achievement (Fuhrman 1993).

A second, and related, strand of structural analysis focuses on the incentives and motivation produced by the current educational policy system (Fuhrman and O'Day 1996; Bishop 1990, 1996, 1997). Much of this work is also critical of existing policies and institutional arrangements, suggesting that they do little to encourage schools to reform teaching and learning. While researchers studying incentives have examined the impact of policies on teachers, the real focus of this work has been on students and the insufficient incentives provided by the existing policy system for motivating high levels of student academic performance (Powell 1996).

These various strands of scholarly work have influenced policy makers and practitioners in a number of ways. Within secondary education, calls for “high stakes”

student assessments and curriculum-based exams for high school graduation have become increasingly common (Costrell 1994; Bishop 1997). Within the higher education arena, many have proposed to carefully align university admissions policies with secondary school standards, in order to “more clearly articulate to high school students the expectations for college-level work” (Rodriguez 1995, p. 8).

Related to efforts at the secondary level, a reform movement has emerged within higher education, proposing that university admissions be based on assessed achievement and academic proficiency (Conley 1996b, 1997; Olson 1996). The rationale underlying this reform movement is that “explicit standards and assessments will send a much clearer signal to the high schools . . . [whose] . . . current criteria . . . rely on course-taking patterns, grades, and general tests of academic preparedness” (California Higher Education Policy Institute 1996, p. 131). In fact, eleven states are currently developing similar “competency-based” policies for admissions to public colleges and universities.

Rethinking Higher Education Admissions and Freshman Placement Policies

The following recommendations are based on a preliminary analysis overview of case studies in three states and a review of relevant literature. Our view is that improved admission and placement policies will enhance academic preparation, send clearer signals to prospective students, and elevate education standards. There is a Babel of standards surrounding K-16, with little attention to alignment between K-12 and universities (see Attachment I, which uses Illinois as an example).

Higher education admissions standards are proceeding in a different direction from the emerging state K-12 policies for standards, equity, and access. This conflict and misalignment is creating confusion and ineffectiveness for all policies—sending mixed signals to students and schools about what knowledge is most worth knowing. The current melange and incoherence of K-16 curricular and assessment standards has no necessary rationale.

Students and state universities will benefit from clearer and more uniform admission standards and signals about what preparation is needed to succeed at the university level. Students of low socioeconomic status (SES) are especially hampered by vague signals about necessary preparation to succeed at universities (McDonough, 1997). Consistent signals and incentives will focus attention on specific content and performance standards.

The recommendations below also will lessen the need for costly university remediation. We believe a major cause of remediation is the incoherence and lack of clarity of current admissions and placement policies for students. For example, students who are admitted to universities know very little about placement standards or consequences of low scores. The tendency of some state legislators to blame remediation on high schools—and perhaps penalize high schools financially for remedial students—is an oversimplification of causes. Numerous studies demonstrate that low SES students have less information and resources to pursue college admission. As noted previously, the Southern Regional Education Board reports that 125 combinations of 75 different tests are used for placement in the southeastern states.

At this stage, we present for discussion incremental changes in university admissions policies. Moreover, in a few years, we will develop nonincremental recommendations based on our completed research in six states. Our focus is on public universities and regular freshman admits, as contrasted to transfer admissions or special admission policies for those who do not meet the “regular” admission criteria. We realize there will be a significant burden placed on high schools as well as universities in implementing most of these recommendations. We offer these recommendations for discussion and deliberation. We have not provided cost estimates, but realize that some recommendations will cause significant expenditures.

Suggested Policy Changes

1. Permit students to submit subject matter-based state external exams in lieu of ACT/SAT and study the university success of these students. Several states have developed appropriate subject matter external exams including Illinois Goals Assessment, the California Golden State Exam, and KRIS in Kentucky. New York is revamping its Regents Exam and Maryland is developing 11th Grade exams. These states and others are potential locations for experimentation. Let us begin by defining what a curriculum or subject matter-based external exit examination system is:
 - a) The crucial difference from SAT/ACT is that a curriculum-based exam is organized by discipline and keyed to the content of specific course sequences. This focuses responsibility for preparing the student for particular exams on one or a small group of teachers.

- b) Produces signals of student accomplishment that have real consequences for the student.
 - c) Defines achievement relative to an external standard, not relative to other students in the classroom or the school.
 - d) Signals multiple levels of achievement in the subject. If only a pass-fail signal is generated by an exam, the standard will have to be set low enough to allow almost everyone to pass and this will not stimulate greater effort in the great bulk of students.
 - e) Covers almost all secondary school students. Exams designed for a set of elite schools or honors courses will influence standards at the top of the vertical curriculum, but will probably have limited effects on the rest of the students. The school system as a whole must be made to accept responsibility for how students perform on the exams. A single exam taken by all is not essential. Many nations allow students to choose which subjects to be examined in, and offer high and intermediate level exams in the same subject.
- 2) Substitute SAT II (or College Board Pacesetters when it is developed), for SAT I in order to link admissions standards closer to external discipline-based standards outlined above. Higher costs of SAT II should be borne by the public and not the student. SAT II exams need to be strengthened and lengthened so they are more like challenging state exams—for example, the California Golden State and New York Regents exams.
- 3) Align freshman placement exams with other state standards, and publicize placement exam content, standards, and consequences to students in high school. At present, high school students do not have knowledge of content or performance standards in university placement exams. Report and publicize freshman placement results for each high school similar to school site reporting for state assessments like KRIS and the Maryland state assessment. Allow students to take placement exams in 11th or 12th grade, and substitute placement scores for SAT/ACT in admissions competition. Since some states have different placement exams for each university or tier of university, there needs to be a study of content differences and whether a common exam is feasible. A common exam would encourage eleventh graders to take placement exams because they need not know which public university they will attend.

- 4) If using ACT, pay more attention to subcategories of the exam (e.g. math) in making admission decisions. Do not rely strictly on the composite ACT score. ACT gives subscores on math, language arts, science, and social study. Students with weak math scores can currently make up for their weakness with high scores in science and social studies. These students do poorly in university-level math courses, and perhaps should not be admitted.
- 5) Take steps to rectify the “senior academic slump” caused by college admissions policies that admit on the basis of records going only through the junior year. Some possibilities are:
 - a) Set explicit standards for senior year performance in all courses and withdraw admission if they are not met. This may require computerized transcript communication between high school and university.
 - b) Make the implications of freshman placement exams clearer to students and stress that taking senior year math and writing courses enhances placement scores, and results in less costly remediation. Remedial courses often do not carry university credit so they cost students more money and time. Integrate freshman placement information about standards with admissions information sent to applicants.
 - c) If a university requires math to graduate from their campus, then require a senior-year math course with a certain minimum standard. Many states require only two years of “real math”—a third course might offer computer-oriented skills.
- 6) Require a writing sample for all admissions decisions. Neither SAT I or ACT assess writing samples—instead, SAT and ACT test writing through a multiple choice test. Some statewide K-12 assessments have a writing sample that could be incorporated into the regular admit/placement process.
- 7) At present, high schools in some states can choose any procedure to compute high school class rank, and improve students chances for admission by leaving some courses (e.g. jewelry making) in or out of high school class rank (HCR). Standardize high school procedures for computing class rank/grade point average. Universities should specify the courses that count in computing HCR, and accord appropriate weight for honors and AP courses across all high schools in a state.

- 8) If using twelfth-grade state subject-matter achievement exam (e.g., California Golden State, Illinois Prairie State), allow university students to take a version of it in the eleventh grade, since many universities admit on the basis of cumulative sixth quarter records.
- 9) Revive the original purposes of high school accreditation—namely, to ensure the quality of high school college-prep programs that produce students who are able to succeed academically at university and do not need remediation. Change accrediting standards so that they align with what universities feel is necessary to succeed at a university. Accrediting agencies should assist universities in adjusting grade point averages for schools that give grades that are considerably above or below typical state averages.
- 10) Have university admissions policy makers review commercially produced K-12 standardized tests and make statements about how well suited they are to assess or predict success at the university level. For example, Chicago's internal academic standards are the Iowa Test of Basic Skills that may not match well with ACT/SAT performance or academic success at university level.
- 11) Explore feasibility of using student portfolios for admissions in lieu of current policies and thereby create a new currency for higher education admission and placement that uses authentic assessment. This area will be a major focus of our research over the next four years.
- 12) Encourage students to submit letters of recommendation to supplement the index of grade point average/SAT (used in California), ACT/high school class rank (used in Illinois)—some states mention that recommendations and supplementary materials are permitted, but do not encourage supplemental materials in addition to the SAT/ACT/GPA/HCR index. Lower SES students are less likely to submit optional materials.
- 13) Align merit financial aid policies with changes recommended above. For example, base merit aid on external subject matter exams like IGAP and Regents, as well as ACT/SAT.
- 14) Review on a periodic basis state, local K-16, and university content and performance standards. Part of this analysis should include conflicting concepts and signals sent to prospective university students.

- 15) Study the signals and incentives that students receive concerning high school admissions standards. Universities know what signals they are trying to send, but not what signals students receive. Pay special attention to differential signaling impact upon high, middle, and low SES students.
- 16) Align concepts and content in university teacher preparation programs with the recommendations above. Pay particular attention to the fit between teacher preparation courses in math, social studies, etc. and state elementary/secondary standards and university admissions content and performance standards. Also, align state teacher education entrance and exit exams with the standards outlined in 1-16 above. Some state subject-matter exams for teacher certification have been updated since the 1980s.
- 17) University reports about freshman performance of students from specific high schools should be publicized widely in mass media, and considered by local school boards for policy implications. At present, these reports are sent to high schools or central district offices, but are rarely revealed within or outside the local education agency.
- 18) Universities should not encourage high school tracking through their admission policies. Honors and AP courses establish a rigid tracking system as early as the 8th grade in some high schools. Students who are not in honors or AP have scant chance of entering the flagship state university because of admissions systems that give extra weighting to honors and AP.
- 19) New post-affirmative action systems in California and Texas are complex and difficult for students and the public to understand (see Attachment II on UC-Davis). For example, some California public universities utilize complex interactive formulas that include the socioeconomic background of the applicants family and school. Special admissions consideration is given for applicant "persistence," and if the student is the first in the family to attend a university, or participated in a university outreach program. Other California universities include essays and recommendations as part of a "holistic" admissions judgment.
- 20) University outreach programs need to be expanded, but also need to be evaluated to verify which outreach approaches are the most cost effective. Many outreach programs have such poor evaluation designs that it is impossible to discover whether they have resulted in students attending universities who would not have attended without outreach.

Universities need to evaluate the impact of these criteria, and help the public understand their rationale and importance for gaining admission.

Attachment I

Using the Illinois case study as an example, one can clearly see the lack of congruence among K-12 standards including: higher education admission, placement, K-12 testing, and teacher preparation standards. The various state, private, regional, local, and federal standards and corresponding tests are listed below.

Student Education Standards in Illinois

State Standards State Curriculum Frameworks

- Called Illinois Learning Standards, but very different in content from ACT/SAT.
- The Illinois State Board (K-12) revised the frameworks in 1997, which received a top rating from the American Federation of Teachers based on their clarity, specificity, and potential to provide the basis for a common core curriculum.

Illinois Goals Assessment Program (IGAP)

- IGAP is part of students' records; remediation is required by the state if pupil score is low; IGAP ends at 11th grade; it will be revised and linked to Illinois Learning Standards.
- The Illinois State Board (K-12) approves development but there is no coordination with higher education.
- Has performance levels and includes math, reading, writing, social studies, and science.

Twelfth Grade Prairie State Exam

- Underdevelopment by the Illinois State K-12 Board.
- Students receive "Prairie State Achievement Award" at end of course exams in senior year. The score is listed on diplomas, but the exam too late to impact university admission.

Iowa Test of Basic Skills

- Chicago schools use this for school reconstitution and trend data; it is a multiple-choice basic skills test that is quite different from IGAP or any other statewide exam.

ACT/SAT

- Used as part of an index for university admissions, even though ACT and SAT are significantly different.
- Each public university in Illinois sets its own admission standards for ACT/SAT admission levels.
- ACT/SAT not aligned with new K-12 learning standards or the IGAP.

High School Class Rank (HCR)

- Illinois Higher Education Admission uses an index based on ACT and class rank (class rank derived from GPA).
- High schools use many different methods to compute HCR, and report the best score a student attains.

Required Carnegie Units

- Fifteen units spread over several courses.
- Required by Illinois State Board of Higher Education.
- Universities can waive or reallocate up to three units.

Placement Tests by Universities

- Each university devises its own, but all include writing sample that ACT/SAT does not include.
- Neither high school students nor teachers know what is on these exams.
- State and local educators visit schools and review curriculum and instruction; not related to North Central accreditation (below).

Private Standards: Regional North Central Accreditation of School Sites

- Uses an interdisciplinary student outcomes concept that is different from any other agency or standard.
- Was created to help universities judge the quality of high schools, but criteria not aligned now to university admission/placement standards.

Local Standards: District Curriculum Frameworks

- There is no statewide study of how congruent the frameworks are with the state standards.

District Tests

- Usually locals want national norms for comparisons, not just Illinois comparisons.

Individual Curriculum, Lesson Plans, Tests, and Judgment of Student Progress

- There is no statewide study of how congruent these items are with the state standards.

Federal/National Standards National Test in 4th and 8th Grade Based on NAEP

- Proposed by President Clinton.
- 80 percent of the test is multiple choice.

Title I Assessment Requirements

- Must be linked to IGAP by federal law.

National Collegiate Athletic Association

- Contains specific course and grade point average to be eligible for intercollegiate athletic competition. Currently requires 13 core courses, GPA of 2.5, and SAT of 820.
- NCAA reviews course titles to make sure they are college-prep oriented, and will not accept some unconventional courses.

Advanced Placement (AP)

- Administered by ETS; content standards based on what is taught in freshman or introductory university courses. Content is based on university course syllabi, unlike SAT.
- Students may receive university credit if they meet specified performance levels of AP exam.

State Teacher Standards State Basic Skills Test

- Teachers must pass this test to receive their license.

Subject Matter Exam and Elementary Teacher Exam

- Exams were devised over a decade ago, and do not reflect current learning standards, IGAP, or any other content or performance standard state uses. Local educators make sure teacher candidates pass these exams, but do not know much about their content.

External Review by Three Out-of-State Organizations

- INTASC - Interstate New Teacher Assessment and Support Consortium, a program of the Council of Chief State School Officers (CCSSO)
- NCATE - National Council for Accreditation of Teacher Education
- NBPTS - National Board for Professional Teaching Standards

One way to illuminate and deepen the policy debate concerning this Babel of standards is to compare their varied concepts and content. For example, if the math content of ACT is quite different from state, local, and regional math standards, then confusing and inconsistent signals will be transmitted to students and schools about which aspects of mathematics are most worth knowing.

References

- Abraham, A.A., Jr. 1992. *College Remedial Studies: Institutional Practices in the SREB States*. Atlanta, GA: Southern Regional Education Board.
- Astin, A.W., et al. 1996. *The American Freshman: National Norms for Fall 1996*. Los Angeles: Higher Research Institute, UCLA.
- Baxter, G.P. and R.J. Shavelson. 1996. "Performance Assessments: Benchmarks and Surrogates." *Journal of Educational Research* 21(4): 279-298.
- Bishop, John. 1990. "The Role of Homework in Improving School Quality." *Research in Labor Economics* 11: 17-51.
- Bishop, John. 1996. "Signaling, Incentives, and School Organization in France, the Netherlands, Britain, and the United States." In Eric Hanushek and Dale Jorgenson (eds.), *Improving America's Schools*. Washington, D.C.: National Academy Press.
- Bishop, John. 1997. "The Effect of National Standard and Curriculum-Based Exams on Achievement." Paper presented at the American Economic Association Meeting, New Orleans, LA.
- California Higher Education Policy Institute. 1996. *Shared Responsibility*. San Jose, CA: California Higher Education Policy Institute.
- Conley, D.T. 1996a. "Where's Waldo: The Conspicuous Absence of Higher Education from School Reform and One State's Response." *Phi Delta Kappan* 78(4): 309-315.
- Conley, D.T. 1996b. "Daddy, I'm Scared: A Prophetic Parable." *Phi Delta Kappan* 78(4): 290-298.
- Consortium for Policy Research in Education (CPRE). 1996. *Policy and Reform*. Philadelphia, PA: CPRE.
- Costrell, R.M. 1994. "A Simple Model of Educational Standards." *The American Economic Review* 956-971.

Fuhrman, S.H. (ed.). 1993. *Designing Coherent Education Policy: Improving the System*. San Francisco: Jossey-Bass Publishers.

Fuhrman, S.H. and J.A. O'Day (eds.). 1996. *Rewards and Reform: Creating Educational Incentives that Work*. San Francisco: Jossey-Bass Publishers.

McDonough, Patricia. 1997. *Choosing Colleges*. Albany: SUNY Press.

Newmann, F.M., H.M. Marks, and A. Gamoran. 1995. "Authentic Pedagogy and Student Performance." Madison, WI: The Center on Organization and Restructuring of Schools.

Olson, L. 1996. "Colleges Move to Match K-12 in Admissions." *Education Week*, September 25.

Powell, A.G. 1996. "Motivating Students to Learn: An American Dilemma." In Susan Fuhrman and Jennifer O'Day (eds.), *Rewards and Reform: Creating Educational Incentives that Work*. San Francisco: Jossey-Bass Publishers.

Rodriguez, E.M. 1995. *College Admission Requirements: A New Role for States*. Denver, CO: Education Commissions of the States and State Higher Education Executive Officers.

Russell, Alene. 1998. *Statewide College Admissions, Student Preparation, and Remediation Policies and Programs*. State Higher Education Executive Officers (SHEEO), January.