‘RESTORING VALUE’ TO THE HIGH SCHOOL DIPLOMA: THE RHETORIC AND PRACTICE OF HIGHER STANDARDS

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Executive Summary

A new wave of commission reports since 2004 has attacked the high school and called for its "reinvention." Four themes emerge from the fray: that standards and rigor are too low; that the high school has lost its relevance, particularly to future employment; that the high school is inequitable; and that the high school is simply boring.

The movement for standards and rigor has generated the most response, especially in higher state graduation requirements and exit exams. The case for high standards rests, in part, on two arguments. One is that economic catastrophe and competitive decline await the nation unless rigor is enhanced. A second and more persuasive case is simply that all too many graduates—and certainly dropouts—lack the competencies necessary to be successful in postsecondary education or to be competent workers, civic participants, and community and family members.

In formulating solutions, the major commission reports promote standards on the apparent assumption that rigorous assessments, including exit exams, can motivate students and teachers into improved learning and performance. Yet proponents of higher standards and rigorous testing have little to say about how their imposition will enhance student performance generally.

To some extent, the arguments for rigor are simplistic. Two conceptions of rigor are dominant: test-based rigor, requiring higher scores on conventional tests; and course-based rigor, requiring more demanding courses (like Algebra II and AP courses). However, these conventional academic conceptions neglect several other conceptions of rigor: as depth rather than breadth; as more sophisticated levels of understanding including "higher-order skills"; and as the ability to apply learning in unfamiliar settings. In addition, while promoters stress "college *and* workplace readiness," in fact very few strategies link to the workplace. Ultimately, these arguments really call for high schools to do a better job of college preparation.

Recent legislation has forced the translation of rhetoric into practice. Most states have increased their graduation requirements, and half the states have adopted exit exams. With very few exceptions, both graduation requirements and exit exams replicate the conventional academic

curriculum of the late nineteenth century. In addition, most state exams are written at the seventh- to ninth-grade levels—not at what proponents would label as *high* standards. The conventional response to student failure has been to provide remediation, an approach that also undermines learning beyond basic skill levels and narrows the curriculum to a few tested subjects, and which may have even contributed to *lowering* standards and reducing graduation rates.

Overall, then, the push to enhance rigor and standards behind the high school diploma is seriously flawed. Moreover, any gains come at the expense of other goals for high school reform, including equity, curricular relevance, and student interest. A more promising approach to reshaping the high school involves pathways, structured around a coherent theme, either broadly occupational or non-occupational. Focus on a single theme nurtures multiple concepts of rigor. Moreover, the approach distributes responsibility for standards throughout the educational community, and it provides students with the benefits of curricular choice and several routes to graduation.

We recommend, then, that:

- Proponents of standards consider conceptions of rigor aside from the conventional test-based and course-based conceptions.
- The uneven application of standards be more seriously examined. High standards are already present in the best high schools, but many other schools, especially in urban areas, lack the capacity to meet high standards. The central problem is therefore one of inequality, whereas the movement for standards has largely neglected the issues of raising achievement for the lowest-performing students.
- Alternatives to the conventional academic program be more seriously considered, partly as ways of achieving more than one goal of the high school reform movement. In particular, fostering multiple pathways through high school provides opportunities for developing multiple conceptions of standards as well as distributing the responsibilities for standards to a broader group of stakeholders.

If our society continues to focus only on standards defined in conventional academic ways, it seems destined to continue the cycle of "reforming again and again and again," with incomplete reforms in one period leading to further critiques and still other reforms in the next—the pattern of the high school reform merry-go-round since the 1890s.

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Introduction: The Recurrent Crisis of the American High School

> It is a curious fact that we Americans habitually underestimate the capacity of pupils at almost every stage of education from the primary school through the university . . . It seems to me probable that the proportion of grammar school children incapable of pursuing geometry, algebra, and a foreign language would turn out to be much smaller than we now imagine.
>
> *Charles Eliot*
> *President, Harvard University*
> *1893*[1]

> America's high schools are obsolete. . . . Today, only one-third of our students graduate from high school ready for college, work, and citizenship. The other two-thirds, most of them low-income and minority students, are tracked into courses that won't ever get them ready for college or prepare them for a family-wage job—no matter how well the students learn or the teachers teach. . . . This isn't an accident or a flaw in the system; it is the system. . . . Once we realize that we are keeping low-income and minority kids out of rigorous courses, there can be only two arguments for keeping it that way: either we think they can't learn, or we think they're not worth teaching. The first argument is factually wrong; the second is morally wrong.
>
> *William H. (Bill) Gates*[2]

The high school seems perpetually in crisis. As early as the 1890s, complaints that the haphazard assortment of courses in secondary schools failed to prepare students for college led a group of university presidents to issue the first of more than a century of reports calling for high school reform. In 1893, a time when only 4% of young people attended high school, the Committee of Ten on Secondary Studies, led by Harvard

President Charles Eliot, recommended a new curriculum to bring standardization and academic rigor to high schools. In the years after 1900, high schools came under attack again—this time for failing to meet the needs of the new industrial age. In response, industrial leaders pressed high schools to become more comprehensive, with specialized curriculum tracks for college preparation, vocational preparation, and general education.[3]

By the 1930s, when high school enrollments had reached only 40% of the cohort, complaints arose about the domination of college requirements, the dreariness of the academic track, and the ineffectiveness of vocational tracks. Such complaints led to the first suggestions to integrate academic and vocational education. During the 1950s proponents of standards and rigor attacked the Life Adjustment movement for "dumbing down" the curriculum. Although they drove the most egregious electives from the curriculum (how to pick a dentist, "wholesome boy-girl relationships"), the general track persisted. The Sputnik crisis of 1957 added to the fears that our rivals were outdoing us, in math and science especially, and led to yet other efforts to improve standards in high schools. James Bryant Conant's 1960 warnings about peer relationships and the "social dynamite" of concentrating adolescents in age-segregated institutions were picked up by a series of reports in the 1970s, criticizing high schools for segregating adolescents from the real world. This critique was articulated again in the early 1990s, and led in part to the School to Work Opportunities Act of 1994 with its emphasis on internships, apprenticeships, and the school-to-work transition.[4]

There has been another surge of reports since 2004, with at least a dozen appearing that year and even more since then.[5] It's difficult to articulate the themes of these reports because they overlap one another, and many of them offer only garden-variety recommendations like strengthening the quality of teaching, linking schools to communities, and engaging all students—suggestions that could be made for any type of education, school and non-school. Some of the critiques are imprecise, like the oft-expressed idea that the high school is an industrial-era institution operating in the computer era. This might mean that schools need more computer-based technology. Or, it might be either a general complaint about assembly-line education (a feature of virtually all schooling) or a specific complaint about Carnegie units as a standardized unit of coursework. Then again, it could be a reference to outdated forms of vocational education geared to the industrial era that still persist in some high schools. Since it is impossible to tell what the criticism (taken as a whole) is or means, it is impossible to shape a reform that responds meaningfully to it.

Similarly, there's a great deal of familiar rhetoric about success for all students, the need for strong leaders, and the power of learning communities—though nothing about how to create such success, leaders, and communities. Reports with urgent titles like *Crisis or Possibility?* are

saturated with purple prose ("High school is the Waterloo of the current round of school reform") and exaggeration ("Nothing is more important to the welfare of this society and its students than the reinvention of the American High School"), while practical strategies are notably absent.[6] It can be alarming reading, and it's certainly alarmist.

From the thicket of commission reports — what one commentator during the 1980s called commissionitis—four main themes do, however, emerge.[7] One is the call for higher standards and rigor, a current version of critiques from the 1890s and the 1950s. A second is the call for relevance, for clarifying the relationship between what is taught in high schools and later life. The relevance criticism primarily echoes the critiques of the years after 1900 and calls for high schools to prepare students for future economic life and occupations. Occasionally, though, relevance invokes the 19th century civic and moral emphasis of schooling, pointing out that high schools ought to prepare individuals for lives as citizens and community members. A third strand is related to equity, particularly to the findings that (depending on how the calculations are made) between 20% and 30% of each cohort — disproportionately African American, Latino, or working class—fail to graduate, and so leave school with very little chance of economic success. A fourth strand calls for making the high school a more lively and intrinsically interesting place for students, noting how many students find it boring as well as irrelevant. This perspective invokes an older charge leveled by Paul Goodman four decades ago: "If there is nothing worthwhile, it is hard to do anything at all."[8] These recent critiques of the high school so often echo earlier complaints that they raise the question posed by Larry Cuban about reforming again and again and again[9]: What makes us think that the current round of proposals and reforms will avoid the limitations of the past?

Of these four major themes, the one that has generated the most response is the call for standards and rigor. The response, as Bill Gates articulated in 2005, also embodies a version of equity, albeit one that insists on higher standards and increased rigor for all students as a counter to what George Bush famously called "the soft bigotry of low expectations." All states have established minimum graduation requirements, and they are slowly increasing them; 25 states police their standards through exit exams—though these exams are not necessarily closely connected to state standards. So it's worth examining this particular strand to examine whether it can yield success this time around.

In this brief, then, we first examine proposals from the most prominent proponents of higher standards to see whether they can succeed in their own terms—or whether, as in prior efforts to reform high schools, they are likely to result in only partial or incomplete reforms. We then examine state requirements for exit exams and higher graduation standards in order to clarify how practice has developed and how new practices are (or are not) related to the hortatory rhetoric of commission reports. Finally, we examine whether such efforts are likely to exacerbate other

problems; for example, whether improvements in standards that come at the expense of equity or other interests are likely to generate later rounds of critiques, different commission reports, and still other proposals for reform. We then pose the question of whether it is possible to develop approaches to the high school that can address several goals simultaneously, rather than lurching from one critique to another in endless rounds of reform.

Another way to understand the problem of reforming the high school is to note two very different responses to critiques of the high school, perceptively identified by the High School Alliance:[10]

> The first response reflects a discourse of crisis. It is policy oriented and managerial; tends toward finger-pointing, top-down solutions; and claims that economic catastrophe lies around the corner. To support its case, this discourse encompasses worries about standards and assessment and reliance on analyses of economic need, potential skill shortages, and inefficiencies in the system. Many analysts and policy-makers favor this argument, because it readily captures public attention.

As we will see, the movement for standards exemplifies this discourse of crisis, with all its limits. But, the High School Alliance also notes a different response:

> The second approach reflects a discourse of possibilities. It is focused more on students than systems, and pays at least as much attention to unequal resources as to unequal results. It seeks improved instructional practice in models of effective schools; and it places more hope in locally developed solutions than in national or statewide prescriptions. This discourse points to the strengths of the emerging "millennial generation"; it turns to neuroscience for guidance on learning needs; and is generally more upbeat positive, and student centered.

When we turn, in the final section of this brief, to ways of reconciling the various critiques of the high school, our own solution will reflect a discourse of possibilities more than the critique of crisis.

The Case for Standards: Diagnoses and Corrections

The most prominent current advocate of higher standards is probably the American Diploma Project (ADP), initially a partnership of Achieve, Inc., the Education Trust, the Thomas B. Fordham Foundation, and the National Alliance of Business. Its initial 2004 report, *Ready or Not: Creating a High School Diploma That Counts*, has been followed by several other publications, notably one constituting an analysis of high school exit exams. A fellow traveler on the standards trail, with a somewhat more complex reform agenda, is the recent New Commission on the Skills of the American Workplace, which has issued its own manifesto, *Tough Choices or Tough Times*. The report recapitulates much of the analysis and recommendations of the first Commission on the Skills of the American Workplace, which released *America's Choice: High Skills or Low Wages!* in 1990.[11] Both these groups emphasize the development of higher standards embedded in increased graduation requirements. ADP advocates a specific set of courses that include new, standards-aligned assessments, as well as more rigorous exit exams; the New Commission proposes to embed its standards in two Board examinations, one to be given at the end of the 10th grade, and the second at the level of AP courses or the international baccalaureate (IB) program to allow students to enroll in selective colleges. While they stress that higher standards should be embedded throughout the high school curriculum, both advocate examinations as mechanisms for assuring that standards are met.

Because these reports from the New Commission and from ADP are the most prominent of the recent series of "rigor" reports and because they are largely representative of the content of that series, we use them throughout this brief to illustrate that content. This shorthand does, we recognize, wash out some of the nuance that would emerge if we were able to address all details of all recent reports. In lieu of such fine-grained coverage, we hereby caution the reader to refer to any given report to learn of its exact contents.

Diagnosing the Problem

One of the problems in these reports is that the accuracy of their diagnoses of what's wrong with the high school is uneven, at best. Some are demonstrably wrong or incomplete. *Ready or Not*, for example, states bluntly that "the diploma has lost its value," and this is certainly true in the sense that it does not certify competence at what many people would call twelfth grade levels. However, the economic return to the diploma has *increased* in recent years, so in the narrow economic sense that these reports emphasize, the diploma hasn't lost its value at all. It's also true that the real wages of high school graduates have eroded over the past decade or two,[12] but whether this is due to the erosion of high school standards or

to problems in the labor market—inequality in wages, the weakening of the minimum wage and union protection, the lack of enforcement of equal opportunity laws, the general erosion of the welfare state under corporate attack—is something that can be endlessly debated.

The New Commission, replicating arguments from the old Commission, is a passionate advocate of what one of us has called the Education Gospel, the view that a number of economic and social problems including competition with other countries (now especially China and India), growth, and productivity require increases and improvements in education. However, competitiveness, growth, and productivity are due to dozens of factors, of which education is only one.[13] The economic resurgence of the U.S. between the early 1980s (when *A Nation at Risk* started the current round of commission reports and education reforms) and the 1990s was due to many macroeconomic and microeconomic factors, but were not likely due to improvements in education. The assumption in *Tough Choices or Tough Times* that "a very high level of [academic] preparation will be an indispensable foundation for everything that comes after for most members of the workforce"[14] ignores a point that Rumberger and Levin have been trying to make since the mid-1980s: while some high-skill jobs have high rates of growth from a low base of employment, the largest numbers of job openings occur in lower-skilled positions. In the most recent projections, occupations unambiguously requiring some college or college (a baccalaureate degree) or more will account for only 24.6% of job openings between 2004 and 2014.[15] So the idea behind College for All, or the college prep curriculum as a default curriculum, is based on assumptions about the labor market that are questionable at best. There is, of course, no question that *individuals* benefit from getting more education compared to their peers; however, there are significant questions about whether the *economy as a whole* benefits from increased levels of education and about whether much higher levels of schooling are necessary to keep up with occupational trends. In addition, most of the occupational changes that seem so dramatic—the decline of well-paid blue-collar work, the increases in the number of professionals, the drift from agriculture to manufacturing to services—have taken place over decades and centuries, so the alarmism of the Education Gospel is overstated and simplistic, even if it sounds compelling.

A more persuasive argument in these reports is that many American students leave high school not especially competent in any area. For example, the American Diploma Project notes that most high school graduates need remediation when they enter college, even those who enter four-year colleges; they cite evidence that most employers complain about the lack of basic skills among their employees. Workers themselves report that high school did a poor job of preparing them for work. Bill Gates, in the comment cited at the beginning of this brief, rightly notes that such poorly educated graduates are disproportionately low-income and

minority. No one can be happy about this situation, least of all the students who find themselves in remedial courses that delay or derail their college aspirations or who find themselves locked out of well-paying trade union jobs because they can't pass apprenticeship exams.

A more extended analysis of this issue—absent from these reports—is that many students graduate reading at a middle school level or below and are unable to make sense of material like newspapers or operating instructions. (Indeed, some manufacturers now offer instruction videos in addition to manuals, presumably to accommodate poor reading abilities.) Some have not mastered basic manipulation of numbers, including fractions and decimals, and lack any mathematical sense-making ability that would allow them to interpret data, including the information embedded in charts, graphs, maps, and other visual displays (called "document literacy" by the Education Testing Service). As reports of the National Assessment of Educational Progress attest, many have minimal knowledge of basic political procedures, which hampers their ability to serve effectively in their potential roles as advocates and citizens. Scientific knowledge is equally poor, impeding informed participation in the many current debates that turn on scientific evidence. No matter whether the purpose of schooling is defined in economic, civic, or intellectual terms, all too many students graduate without the competencies necessary for modern life[16]—and the situation of dropouts is surely even more dire.

In short, the diagnoses that center on low standards as an economic threat are misleading. They blame only education for problems that have many complex causes, they promote educational solutions in situations where a variety of non-educational strategies would be much more appropriate, and they take a narrow view of education and of educational outcomes. This is not to say that higher standards are not desirable. Instead, the more persuasive argument for them is simply that, given the amount of time students spend in school, they could be working toward much higher standards than is now the case—which would serve them well not only in their work lives but in their personal and civic lives as well.

Corrections and their Limits

Whatever the rationale, the diagnosis of low standards leads to the question of whether and how new course-based assessments and more demanding exit exams will produce more sophisticated learning. After all, as *Ready or Not* acknowledges, there are already too many tests, and educators are already tied up in knots with the procedural and educational requirements of No Child Left Behind.

The answer from the American Diploma Project is in effect a simple faith in the behaviorist power of tests to force teachers and students to comply with new requirements. That is, the ADP proposal simply

assumes that the threat of withholding a diploma will make students and teachers work harder. Unfortunately, threats of punishment don't work well as motivation: modern businesses have largely abandoned the strategy, which is particularly inappropriate to motivate individuals to do intrinsically uninteresting work[17]—the type of work most often found in high schools, as student testimony shows.[18] And, when high schools attempt to raise pass rates with skill-and-drill remedial routines geared narrowly to the test, conditions that nurture high levels of motivation and engagement are eliminated.[19] The basic assumptions of the American Diploma Project violate much of what we know about student behavior.

Furthermore, the Project's published materials make no mention whatsoever of how high schools might change in order to modify teaching methods and make sophisticated material more accessible, or to persuade students to think more critically, or to overcome the low student motivation and engagement highlighted in other commission reports.[20] We found only a hint of practical strategy—in a table in an obscure Powerpoint presentation based on a survey of high school graduates.[21] The table offers a variety of suggestions for encouraging students to work harder: "real-world learning opportunities (internships)" in first place, followed by early guidance about courses, "more honors, AP, IB courses available for free," "more tutoring, summer school, extra help," and "giving juniors college placement tests to see if they're ready." Some of these (like internships) are familiar and potentially powerful complements to the high school curriculum; others (like better counseling) reflect problems that have long defied solutions—and in any event, don't contribute to the enhanced academic rigor ADP pursues. Some suggestions (more AP and IB courses) cannot be successful unless teachers and students alike are adequately prepared for their greater challenges. In the end, the American Diploma project is silent on *how* to change the high school; it implicitly assumes that more rigorous tests will somehow automatically result in better teacher and student performance.

The New Commission provides a little more direction, but not much. It recommends recruiting teachers from the top third of college graduates, but—aside from an uninspired discussion about the best strategy for compensating teachers—it says very little about what combination of improved pay, working conditions, professional prerogatives, and social status might make this recommendation work. Neither does it make clear how or why teachers drawn from the top of their classes can be expected to translate their success as students into powerful teaching ability, given that learning and teaching are hardly synonymous. It advocates a high-quality early childhood program, which at least recognizes that high school performance is grounded in earlier experiences in pre-K and elementary education, but that proposal doesn't do much to change high schools. It proposes creating high performance schools called contract schools—remarkably similar to charter schools—and relies on parental choice to improve the quality of high schools; in

making this proposal, however, it ignores the distinctly mixed evidence about the effectiveness of charter schools and choice mechanisms.[22] And, it recommends "giving the nation's disadvantaged students the resources they need to succeed against internationally benchmarked standards," a fine recommendation—but one that lacks any specifics on what these resources are or how they will be pried loose from tight-fisted voters. In the end, then, because this group's ambitious rhetoric lacks specifics, it too relies primarily on the presumed rewards and penalties of new diplomas and exams to motivate higher academic performance.

But here a different problem arises. One is that neither group has any conception of how diplomas and credentials work. In our conception, diplomas and credentials work when they integrate the demands of colleges, employers, or others requiring certain competencies; the expectations of education providers, including teachers; and the expectations of students.[23] This means that either employers or postsecondary institutions need to incorporate these new diplomas and assessments into their hiring or admissions requirements. But how this will happen, when four-year colleges already have admissions procedures requiring existing tests and when employers already rely on various existing diplomas, is unclear. The formalized credentials in European countries are often (as in the German-speaking countries) created by tripartite groups incorporating employers, unions, and education providers. However, the U.S. has (except in the case of licensed occupations) relied mostly on "informal" credentials like the high school diploma and the baccalaureate degree, established and recognized by long practice and with clear consequences for employment even if not formally structured. Fostering such alignment in the U.S. would involve enormous effort, and require much greater participation of employers, of (now poorly organized) labor representatives, and of educators.

The prognosis for doing so is not good; the utter failure of the National Skills Standards Board to set up sector-specific skill standards in the 1990s[24] suggests some the many difficulties of the task. Furthermore, ADP wants colleges and universities to recognize its higher standards in admissions procedures, a plan with other complications. A high proportion of postsecondary education takes place in community colleges, which pride themselves on their inclusive admissions policies, and in non-selective institutions, which also accept virtually all applicants. ADP's higher standards would therefore obviously be irrelevant in the many institutions that specialize in accommodating relatively poorly prepared students. Thus, the possibility that many employers or postsecondary institutions will adopt ADP's higher standards seems remote. Instead, teachers and leaders in high schools would have to lead this charge—despite the inconvenient fact that these manifestos are stone silent on the question of how exactly the high school is to change to allow for such leadership.

The Case for Standards: Assumptions and Omissions

Conceptions of "Standards" and "Rigor"

It's worth asking what "standards" and "rigor" mean, since they are so constantly invoked in these commission reports—as well as in the longer history of attacks on high schools for "dumbing down" the curriculum. The reader looks in vain for any clear definitions, although *Ready or Not* does state that "it is not enough to ask high school students to analyze texts," but instead "students must have been expected to analyze *particular kinds of rigorous texts"* (p. 22, emphasis added). Texts characterized as rigorous are included in appendices, and they include many old standards (Shakespeare, Dostoevsky) and a fair number of newer "multicultural" texts (James Baldwin, Native American myths). In math, rigor constitutes "quality and complexity" as exemplified by a series of problems in appendices, with most drawn from conventional algebra and geometry coursework. The proffered examples and the history of past complaints allow for inferences about several implicit conceptions of rigor:

Rigor as student effort: Sometimes lack of rigor is blamed on students' lack of effort, their unwillingness to do their homework and take hard courses. ADP's *Rising to the Challenge* notes approvingly that 77% of non-college students report they would have worked harder if they had been challenged more. But by and large this student-blaming conception of rigor is not prominent in these reports, which talk instead of schools failing students. Interestingly, despite such talk, reports offer little serious attention to the need for schools to improve student motivation and engagement, even though these factors account for at least some of differences in achievement and attainment, and even though there are many changes in curriculum and instruction that are known to enhance effort.[25] Generally, attention to how high schools might productively focus on student effort is simply absent from the reports stressing standards and rigor.

Test-based rigor: In some cases, rigor seems to be defined as scores on established tests. In international comparisons, for example, the problem is defined as American students scoring poorly, so preparation sufficient to bring scores up to the levels of Korea or Finland might be considered rigor. Other examples include annual complaints about the high proportion of students who fail to meet proficiency standards on the National Assessment of Education Progress. Perhaps the most widespread examples of rigor defined in terms of minimum test scores are the many efforts to establish "rigorous" high school exit exams, examined below.

Content-based rigor: A somewhat different conception defines rigor in terms of the curriculum. Often this conception leads to suggestions that all students be required to pass certain courses thought to have higher-level content, like Algebra I, or perhaps an AP course in English or

calculus, or international baccalaureate (IB) courses, or to take more courses in a particular discipline (like math or science). Alternatively, this conception may move proponents to call for eliminating the general track courses known to be weaker versions of college-prep courses—General Science, or Math for Everyday Living, or the courses of the Life Adjustment movement. And sometimes, rigor-as-curriculum prompts debate over which specific texts in English or history or social studies are rigorous, and what kinds of mathematical problems are rigorous. Unfortunately, debates about required reading lists too often lead to classroom routines focused on simple-minded memorization of facts ("Who said 'The quality of mercy is not strained'?" "Who wrote *The Sound and the Fury*?"), and ultimately obscure the larger point that students should become independent readers competent to read a wide variety of texts.

It is these conventional academic definitions of rigor as test performance, as sanctified content, or both that underpin both the New Commission and the ADP reports, thus offering little that is new. The pages of mathematical examples, for example, include factoring polynomials and all the other standards of conventional algebra, familiar theorems about triangles and angles, basic trig, and introductory statistics (now much more common in the high school curriculum); they could all be mastered in the current curriculum if every student completed *and understood* the conventional high school math sequence through Algebra II. As for the reading examples, almost all (save for a few examples of technical and practical documents like catalogs and job applications) are also taken from the standard academic roster. So there's nothing new in the calls for rigor that embed these conceptions: all students should complete the standard college-prep curriculum, and then everything will be fine—well, fine except that no one quite knows how to make it happen, and the report recommendations offer little or no help.

There are, however, alternative possibilities based on other conceptions of rigor less bound up with the conventional academic trajectory. Generally, these look more to competencies that might be required in life outside the high school:

Rigor as breadth versus depth: There's been a substantial conversation in the U.S., driven in part by comparisons with other countries, about whether this country tries to cover too many topics—breadth—at the expense of fostering the sort of depth of understanding sought in many other countries. Many state standards emphasize breadth by specifying an enormous variety of topics that students should study at every grade level, and comprehensive textbooks and curriculum guides provide additional pressure for broad coverage. Similarly, teacher self-reporting provides some evidence (outlined in the next section) that teachers often sacrifice depth to breath by choosing to forgo deeper exploration of certain topics in order to "cover" all topics in high-stakes exams. This debate—again partly a discussion about basic instructional

approaches—is nowhere mentioned among the conventional proponents of rigor, despite its vast implications for the classroom.

Rigor as levels of sophistication: Much less often—and virtually nowhere in the commission reports—rigor refers to a presumed hierarchy of competencies. For instance, in reading, decoding has in the past been deemed necessary before comprehension; the ability to make inferences deemed more sophisticated; and making analytic judgments about texts deemed still more advanced. In math, manipulation of numbers is a "basic" skill, as is the mastery of fractions, decimals, and other transformations of numbers; but the development of number sense or mathematical sense-making—the ability to draw information from a table of data, or to transform numbers into other, more illuminating numbers— is a competence that most adult Americans seem to lack, even if they have progressed through the apparently greater content rigor of Algebra I and II.[26] Many students who can regurgitate "How a Bill Becomes a Law" cannot participate in political debates; scientists seem to delight in showing that even graduate science students still retain primitive or "folk" conceptions of scientific mechanisms. So test and content rigor, with the raw materials of academic courses, cannot guarantee greater sophistication in thinking. This is often referred to as "higher-order skills," as contrasted with "basic skills," and many reports allied with the Education Gospel have called for such skills — conceptualization, problem-solving, critical thinking, decision-making, communications to different audiences[27]—to be incorporated into schools. But there's little mention of such standards in these reports, perhaps because in a world defined by what can be tested, there are still not general ways of assessing higher-order abilities across the entire school population.

Rigor as Application and Transfer: Still another conception of rigor and standards might include the ability to use academic material, of the sort taught in conventional high schools, to unfamiliar applications. This is another area where content and course rigor may be useless. There are all too many examples of students who can perform arithmetical calculations, but cannot recognize what operations to use in daily life or on the job. The ability to respond to questions about *Catcher in the Rye* does not translate into the ability to understand voter pamphlets, fill out complex applications, write instruction manuals or read auto repair manuals. We suspect that many complaints of employers about the skills of the workforce are not really about the lack of basic academic skills per se, but about the ability of front-line workers to apply these skills in new work contexts.[28] As Solomon and Perkins have argued, the ability to transfer competencies into unfamiliar areas can only be taught reliably through "high-road transfer," where individuals develop high-level constructs and then apply them to new tasks; low-road transfer based on memorizing procedures to the point of automaticity may not work.[29] Application and high-road transfer require very different approaches to

teaching, although none of the proponents of standards and rigor have attended to pedagogical issues.

Rigor as Intellectual Breadth: Still another conception of rigor would acknowledge that schools have usually focused on a narrow set of cognitive abilities, even though most adult activities require a broader range of competencies. Howard Gardner's theory of Multiple Intelligences, for example, includes musical, kinesthetic, spatial, interpersonal, and intrapersonal "intelligences" as well as mathematical and linguistic abilities; the ideal of a well-rounded individual and some conceptions of liberal education similarly assert that an individual should cultivate more than cognitive abilities.[30] Most employment requires a range of competencies (communication as well as technical skills, for example) as do civic and community participation. Yet there is nothing in the current standards movement about such abilities, except as embedded in art and music standards that are widely viewed as "peripheral" rather than core, and the leading proponents of higher standards say nothing about the breath of abilities required for most adult life.

No doubt yet other conceptions of standards and rigor might be drawn from the now-vast literatures on cognitive development and cognitive science, but these seven conceptions are sufficient to make three important points. First, the meaning of "higher standards" is not self-evident. Second, the most prominent proponents of standards have used conventional academic conceptions of rigor tied to test and content standards. And third, these conceptions and the proposals based on them do little to enhance levels of sophistication (or "higher-order skills") or the application and transfer of school-based learning into such other realms as employment and democratic citizenship. Ironically, then, despite the fact that proponents constantly emphasize preparation for postsecondary education *and* work, their proposals embody standards that prepare students inappropriately for the workplace demands. Until there is some way to reconcile the various conceptions of standards, complaints about high schools will continue and reform will be incomplete.

Conceptions of Workplace Readiness

The business community's disappointment in schools is vocal and pervasive, and both the American Diploma Project and the New Commission include a number of corporate representatives. *Ready or Not* cites employer dissatisfaction with basic skills, and it consistently uses the term "college *and* workplace readiness"—rather than civic or community or intellectual readiness—in describing its goals. *Tough Choices or Tough Times* is full of side quotes from business groups, proponents of technological innovation and creativity (presumably requiring better schooling), and corporate executives warning about the challenge of "securing a supply of high-value skills." They remind us that employers are as disappointed with high schools as are colleges and universities, and

presumably that preparation for the workplace is a goal commensurate with preparation for post-secondary education.

But for all the rhetoric, the examples and illustrations of what high schools might do to prepare their students for the workplace are almost totally absent from these reports. *Ready or Not* includes some 50 pages (p. 22-72) on the academic competencies necessary for postsecondary education, and then another 15 pages on academic tasks that might be carried out in postsecondary courses (pp. 88-103). Although the competencies might also be appropriate for a range of workplaces, the report doesn't make that claim, nor are the examples presented in any workplace context. That is, it's not obvious when and where anyone might need to find a tangent line or solve a quadratic equation, and so there's no help for teachers who want to motivate students by discussing the practical usefulness of academic work. In contrast to the copious attention to academic skills, there are only 11 pages on workplace competencies and tasks (pp. 74-85). These are all simplistic examples that involve arithmetic calculations and business letters, not the "higher-order skills" that others have mentioned; they certainly don't provide much guidance for academic instructors who want to incorporate workplace examples into their curricula. The rich and varied examples of the competencies required in work—the subject of a vast literature in the sociology of work and in cognitive science—are nowhere present, and the many examples of workplace tasks requiring academic preparation, from writing persuasively to analyzing data intelligently, are equally absent.

Tough Choices or Tough Times frets endlessly about creativity and innovation in the workplace, particularly as the basis for technological innovation, but it nowhere addresses how creativity can be taught or otherwise embedded in the curriculum (through projects or internships, for example). In the end, then, for all the rhetoric about high school students being prepared for further education *and* employment, these reports present conventional arguments for high schools as preparation for college—another version of College for All — rather than for college *and* employment.

The Responsibilities of the Business Community

As noted above, the business community has certainly complained vociferously about the quality of high school preparation, and indeed business' interest in and influence on education goes back to the movement for vocational education around 1900. But beyond critiquing the schools, what role might employers play in helping to reform them? *Tough Choices or Tough Times* is completely silent on this issue. *Ready or Not* devotes a small section to it, and makes two proposals: employers should encourage states to align standards and graduation requirements with knowledge necessary for success in postsecondary education and work, and they should "consider evidence such as high school assessment

results and transcripts in making hiring decisions."[31] These seem weak and inadequate suggestions, particularly since simple benefit principles of public finance would indicate that employers who make demands on the public sector and education should be ready to provide systematic support.

Stronger recommendations might have joined other reformers in calling for expanding work-based internships so high school students can see what actually happens in the workplace. Creating more internships would allow employers to help show students what work requires—rather than simply admonishing educators to do it.[32] When employers and employees have participated in career academies and other approaches linking school and work, they have also come to play important roles as mentors, sources of information, and role models—"teachers" of other kinds. Second, employers might become more active members of coalitions supporting education, thus enhancing the civic capacity of towns and cities.[33] Third, the corporate community might discontinue their aggressive drive for tax concessions that have resulted in corporate taxes falling steadily over the past few decades,[34] to the detriment of public schools.

Similarly,[35] the business community might function more responsibly toward their civic communities. The corporate and Republican attack on the welfare state has been relentless, at least since the early 1970s,[36] and yet many programs of the welfare state—health and nutrition programs, mental health and social services, family support programs, housing policies, community development efforts, anti-drug and anti-crime measures, minimum wage and union legislation to reduce income inequality, income support measures to decrease poverty—are complementary to schooling, particularly for low-income students.[37] If members of the corporate community were serious about improving the quality of schooling, they could help not only by working more directly in schools, but also by advancing the social and economic conditions that support education. Again, these are all reasonable expectations, based on the public finance principle that those who benefit from a social good ought to support it in both financial and non-financial ways.

The reports discussed here, however, assume that employers may legitimately articulate increased demands without taking on corresponding responsibilities.

Equity as High Standards for All

Although the major proponents of standards focus on conventional academic conceptions of the high school curriculum, the low standards they bemoan do not characterize all high schools. The examples of standards in *Ready or Not*, for example, can readily be found in conventional college prep or honors programs (at least in the many high schools with a meaningful college prep track), and there are plenty of high school students who master trigonometry and even calculus. The problem

isn't that standards don't exist but that too many students do not meet them—and that a large proportion of these students are working class, immigrant, African American, or Latino. One of the authors has, in fact, spent her career examining the costs of an educational system that rations high standards and rigor to the advantage of already privileged students.[38] The real problem here is the uneven and inequitable application of standards. Indeed, it is refreshing to see such a clear call for equity in standards for all students. It is well past time to replace other conceptions of education in which some students are simply schooled to be orderly and respectful, or to assume their low-level places in a capitalist hierarchy of employment, or (in the case of African Americans) to be docile citizens, or (in the case of immigrants) to assimilate to American norms.[39]

But beyond asserting that more rigorous standards must exist for *all* students, the standard-bearers fail to address the issues of equity at all. How, for example, is it possible to get ninth graders reading at the fifth- or sixth-grade level to analyze "rigorous texts"? How are students who have not mastered simple fractions going to complete Algebra II? There are answers to these questions, including interventions like ninth-grade academies, fundamental improvements in instruction, and ways of restructuring high schools to increase motivation and engagement, but they are difficult to implement and their effectiveness is uncertain. Furthermore, many interventions must begin much earlier than high school. Dropping out of school has often been viewed as a developmental process that begins in the elementary grades; to avoid the most egregious betrayals of any standards system requires policies attending to support and intervention in the earliest years of schooling. Yet there is not even a whisper of such policies anywhere in the texts promoting standards in high schools. Again and again and again, these authors call for higher standards, but they fail to show how they can be achieved.

It's hard to be against higher standards. Of course the world is a more complex place; of course there's more to know than ever before; of course those who learn more in high school will benefit in all aspects of life, even though it isn't possible to say ahead of time precisely how that will happen. There's a lot of bad teaching, and all too many high schools are chaotic and mind-numbing places, where too much time is wasted on boring and pointless assignments. The testimony of students themselves is evidence enough, without getting grownups into the blame game.[40] And it's true as well that too many students drop out or graduate without the competencies they will need for adult life. Widespread agreement on these points suggests that proponents of standards, advocates for equity, and champions of more engaging curricula should all be able to join forces in the interest of improving high schools. But calling for higher standards, and then for assessments or exit exams or Board Exams that police these standards, without providing any glimpse of how to achieve them, and without any recognition of the fiscal and non-fiscal resources necessary, cannot possibly produce effective reform. As with the rest of the

accountability movement, those calling for higher standards have been weak on how to enhance the capacities of schools to meet these standards.

Among other weaknesses in the call for standards, particularly worrisome is the possibility that their emphasis undermines other goals for high schools—especially the goals of increasing curricular relevance, promoting increased equity, and nurturing intrinsic interest. These alternative goals are championed by many of the other high school commission reports, examined in the final section of this brief. But even in their own terms—even in the pursuit of higher standards, whatever they might be—the ADP and New Commission reports fail to offer meaningful guidance about what to do to effectively reform our high schools.

High School Graduation Requirements and Exit Exams: Standards in Practice

Another perspective on the standards movement comes from examining what has been done in its name, particularly since policy-makers do not normally wait for agreement among commission reports. Much of the American Diploma Project agenda was endorsed by the National Governor's Association at its 2005 High School Summit and in ensuing reports and briefs.[41] Twenty-nine states are currently members of the American Diploma Project Network, formed to strengthen high school standards, curricula, assessments, and data and accountability systems; its overall goal is to ensure that all students graduate ready for college and 21st-century jobs. But results, not rhetoric, are most telling about the merit of such efforts. That is, one way to assess their impact is to examine policies that have actually been adopted, primarily by states, in pursuit of higher standards. The most prominent of these are exit exams and graduation requirements, which exemplify test-based rigor and content rigor respectively.

Graduation Requirements[42]

Various efforts to increase graduation requirements come with a great deal of rhetoric from the Education Gospel. For example, North Carolina's new Future Ready Core will "help ensure that students graduate with the academic foundation they need for success in the global economy."[43] To provide such vaunted foundations, states have slowly been ratcheting up the number of academic courses required for graduation. About 21 states now have or are planning to offer differentiated diplomas, an effort to encourage students to meet higher course expectations—a good example of course-based rigor. These include New York, which has a Regent's Diploma as well as a conventional diploma; Texas, which has "standard" requirements and then an "Honors Curriculum" option; and South Dakota, which has "standard," "advanced," and "distinguished" graduation requirements that primarily

reflect differences in required science.[44] Whether these differentiated options make any real difference to students' lives after high school (either for college admissions or employment) seems not to have been studied to date.

No matter the particular diploma option, graduation requirements remain by and large conventional academic courses. There is almost nothing in these course requirement lists that didn't appear on the Committee of Ten's list of recommended courses in 1893,[45] making it difficult to understand how requirements have now been specifically geared to the global economy or the challenges of the 21st century. Instead, they continue to reinforce the conventional image of the high school curriculum dominated by disconnected academic coursework.

Exit Exams[46]

While exit exams have been around for several decades, there has been renewed attention to them since approximately 1994, with increasingly rigorous exams replacing minimum competency exams. Like the rationale for graduation requirements, the rationale for exit exams usually draws heavily on the Education Gospel: as the California Superintendent of Public Instruction declared, "we all have the responsibility to help prepare our young people to succeed in an increasingly competitive global economy."[47] Currently 25 states, whose student populations total two-thirds of all students and three-quarters of all minority students, require exit exams. While the exams vary in the number of subjects covered, they—like graduation requirements—consistently emphasize the conventional academic courses of the Committee of Ten report. The exceptions are rare: Maryland requires data analysis; North Carolina requires computer skills and economics; Virginia requires earth science.[48] On the other end of the spectrum, it's hard to know how the California's requirements in reading and math only, often described as being at the 9th or 10th grade level, will prepare students for "an increasingly competitive global economy."

Why should policy markers expect exit exams to increase standards? The conventional rationale is that both students and teachers will be motivated to work harder, with more students taking higher-level courses in order to pass the exams. In addition, students who fail on a first try usually have the opportunity for some kind of remediation or intervention, and it's possible that the cold water of failure may spur them to learning more through such work. Indeed, there are at last some credible reports from two districts that students are taking more math courses to pass these exams.[49] And, like all accountability measures, exit exams may force schools to replace nothing with something; that is, schools with lackadaisical teachers and weak curricula may be forced to gear instruction to state standards or at least exit requirements. However, replacing nothing with something is a low standard indeed, hardly the

"world-class standards" that the advocates for standards and rigor seek.

In fact, the most obvious problem with existing exit exams is that, by and large, they do not impose high standards. The Achieve report, *Do Graduation Tests Measure Up?*, has determined that most states include questions at the 7th and 8th grade material for math, and at the 8th and 9th grade level for English; it complained that "these exams will need to be strengthened over time to better measure the knowledge and skills high school graduates need to success in the real world."[50] "Strengthening" is defined as including more challenging content, more challenging questions, and higher cut scores—that is, as yet another call for test and course rigor.[51] Moreover, there's even some evidence that high schools may detour from their conventional curricula to provide preparation time for exit exams: in Austin, Texas, students in honors and AP classes had to participate in exam prep courses, and one student complained that "it hinders upper-level classes . . . you are holding some students back and not pushing some students forward."[52] So some exit exams may actually contribute to dumbing down the curriculum.

A second problem is that what states and schools do with students who have failed initial stages of exams is universally described as "remediation," which usually refers to drills on narrowly-defined and test-driven skills. Such an approach may help students pass a low-level test, of course, and graduating instead of dropping out is certainly in their interests as well as in those of their teachers, principals, and districts. But, especially since failing students are often pulled out of other classes in order to attend remedial courses, this also means that they miss a broader range of subjects (including "core" subjects potentially necessary for college admission). In addition, limited evidence from a few districts suggests that teachers are increasingly using instructional guides aligned to the tests, teaching test-taking strategies, and otherwise retreating from broader instructional experiences like reading longer pieces of literature, going into some subjects in depth, or teaching mathematical problem-solving.[53] In the Austin case study, two typical exit exam responses emerged: in schools serving higher-performing students likely to pass the exam, little changed; in schools serving low-performing students, however, exam requirements distorted many aspects of the curriculum. (These results are consistent with how schools have responded both to state accountability systems and to No Child Left Behind.) For failing students, then, the help available substitutes drill in a narrow range of basic skills for the broader education and deeper understanding that exams are supposed to help promote. How this will help students complete in the global economy remains unclear. Again, these exit exams seem to dumb down the curriculum, rather than increasing meaningful learning as advocates intend.

A final problem is that providing remedial help in grades 10, 11, and 12 is surely the proverbial "too little, too late." A student's performance in one grade powerfully influences performance in

subsequent years, so it take several years of *sustained* efforts to move a student's performance from a low level to one sufficient to pass an exit exam.[54] This means that efforts to improve exam performance should start at least in middle school, and perhaps even in elementary school, to ensure that all students acquire basic skills in literacy and numeracy.

Overall, states are caught in an inescapable dilemma. If they set exit exam standards high, incorporating 11th and 12th grade material, then pass rates will be low and states will have to confront the expensive and difficult challenge of helping all students meet high standards, throughout the middle and even elementary school years. If they set standards low, then most students will pass, and states can hope that short remedial programs at the last minute will pull most of the remaining students through. But this tactic defeats the purpose of exit exams, since it neither maintains high standards nor provides low-performing students with powerful educational experiences. Under these conditions, exit exams become symbolic rather than strategic.

The most contentious issue around exit exams concerns whether the exams increase dropout rates. While this might seem an obvious outcome, dropout rates might decrease if students were motivated to work more seriously, or, they might at least remain stable if the same students dropped out regardless of the exam. Although it's relatively clear that the early wave of exit exams did not affect dropout rates significantly, these were usually minimum competency exams with low demands. In recent years, however, a lively debate has grown up around the methodological issues involved in measuring dropout and completion rates accurately and then setting up appropriate statistical models. Some of the material emerging from the debate has offered a good deal of evidence reinforcing the conclusion that exit exams make no difference.[55] However, an important, recent article contradicts that evidence. Based on the most careful calculation of graduation rates and the longest time span, this study concluded that exit exams—and particularly the more difficult exams—did reduce high school completion rates, by about 2.1 percentage points.[56] Furthermore, the negative effects of exams were larger in states with higher rates of poverty and with more racially and ethnically diverse student populations. This conclusion reinforces results from other studies indicating that test score results and passing rates vary substantially by race, ethnicity, and income.[57] Proponents of higher standards might be willing to accept higher dropout rates as part of the presumed trade-off between equality and quality, or equity and effectiveness, though no one has been so crass as to admit this. But the hope that exit exams might increase standards *without* decreasing completion and equity has now been seriously challenged. Certainly no one has suggested that exit exams have enhanced completion rates, so the argument that they might "pull up" students—by encouraging them to take harder courses and so be more likely to graduate—appears totally unfounded.[58]

Finally, the financial costs of exit exams have proven non-trivial, and it's obvious that serious efforts to meet high-level targets would be substantial indeed—a reality contrasting with the assumption that exit exams are a nearly cost-free way of enhancing student outcomes. Researchers have estimated that costs range from $171 to $557 per student per year, and that the cost increases sharply when states try to increase pass rates, raise required scores, or adopt a more challenging test.[59] For Indiana, meeting performance targets on state tests would cost an additional 8.5% of state expenditures. However, many of these costs are borne by districts or schools themselves, since only 14 of the 25 states with exit exams provided additional support. In a sub-study of Indiana, Massachusetts, and Minnesota, schools and districts bore as much as 96% of exam-related costs (largely for remediation). This analysis illustrates two problems: First, again, is that states have imposed test requirements without increasing the capacities of districts and schools to meet these requirements. Indeed, if districts and schools with high proportions of low-performing students also have fewer fiscal resources, those with the greatest need for enhanced capacity have the greatest unfunded demand. Second, if meeting the demands of exit exams costs as much as 8.5% of state funds, the question arises whether exit exams are the most cost-effective way to enhance standards and performance. Perhaps other approaches—appropriate professional development to improve the quality of instruction, or the kinds of restructuring proposed in the conclusion of this brief, or even financial rewards (a.k.a. bribes) for students who improve their performance—might prove more effective uses of such large sums. But this question has seldom posed, never mind answered.

So a closer look at exit exams indicates the following: they reinforce conventional academic curriculum; they do little to enhance standards and may even undermine them; they distort curriculum and instruction; they lead to higher and more inequitable dropout rates; and, they impose substantial costs—especially on districts and schools that can least afford it—without considering alternatives. As a way of reforming the high school—even if reform is defined exclusively in terms of enhancing standards without consideration for alternative goals like those discussed in the final section—exit exams seem an approach that has so far failed on its own terms. One might argue, of course, that it's too soon to judge the standards movement in practice, and that states will slowly learn how to develop more appropriate exit exams and more effective ways to improve student performance. But this argument places enormous faith in the states' abilities to recognize and provide necessary improvements in capacity, and there's little evidence so far to suggest that they are up to the challenge.

Contradicting Other Goals for High School Reform

The sections above have thoroughly detailed weaknesses in the rigor-as-standards-and-testing movement. And, they have offered significant evidence that the movement cannot succeed even in minimal terms: at best it may force more students to take more "rigorous" courses, and it may eliminate the dreadful courses of the general track and of traditional vocational education (as has been happening for twenty years anyway). Notably absent are any clear conceptions about how to reverse well-documented inequalities in the schooling system, making it unlikely that *all* students will ever reach higher standards—copious rhetoric to the contrary notwithstanding.

At the same time, there are many other conceptions of what's wrong with the high school and many other goals for its transformation, as we suggested in our Introduction. Not surprisingly, the movement for standards threatens to exacerbate other problems and impede efforts to solve them. At times, the proposed solution even reinforces an identified problem. Consider, for example, the critique that the high school is a vestige, an industrial-era institution in the twenty-first century, which appears to mean that it has changed little in terms of content and structure. Contemporary curriculum looks remarkably similar to the conventional college prep curriculum approved by the Committee of Ten in 1893, and the typical structure of short periods of subject study (Carnegie units) still occur in a fall-through-spring academic year developed in the agrarian nineteenth century. And yet, the recommendations of *Ready or Not* and a focus on high school graduation requirements simply reinforce this traditional approach to the high school, as detailed above. Meanwhile, alternative visions—for example, theme-based curricula, or new integration of academic and occupational education, or service learning or internship opportunities—are actively thwarted by the standard academic curriculum and its codification in academic course requirements. For all its criticism of high schools as outdated, the standards movement—the current push to place added rigor and higher standards behind the high school diploma—is less a reform than a reaffirmation of an older ideal, maintaining the power of the late nineteenth century model and making any other, more substantive reforms more difficult.

Similarly, broader conceptions of equity in high schools—usually a call to decrease implicit tracking, improve instruction and personalization, and ultimately improve graduation rates and college entry—can only be undermined by the standards and testing movement's drill-and-skill remediation for failing students and its punishing effects on students and schools with the fewest resources. The difficulty and complexity of making high schools more equitable are obvious, particularly when ninth graders already vary wildly in their preparation: improved equity requires a complex agenda all its own.[60] It cannot be seriously advanced by ignoring the issue, or by calling blithely for all

teachers to come from the top third of college graduates, or by tests normed so that all but a small fraction of students can pass. So the standards movement threatens to undermine equity through exit exams without really enhancing standards—the worst of both worlds.

The standards movement also fails on the criterion of "relevance," another goal of many high school reformers. Relevance is itself often defined narrowly in vocational terms, and one might think that manifestos calling for better preparation for "postsecondary education *and* work" would offer proposals scoring high on relevance. But once the workplace rhetoric disappears from these reports and proposals move on to promoting graduation standards and exit exams, "relevance" means simply getting into postsecondary education, the conventional goal of the college track. Of course it would be an advance if high school students better understood the connection between high school courses and college requirements, avoiding the current widespread problem of seniors realizing they have not taken appropriate courses only when they apply for college admission. But this still leaves the intrinsic importance of high school study unclear, where there are no good answers to the question "Why do I need to know this?"—only the pathetic refrain "It will help you get into college." Any broader conception of relevance—high school as preparation for all aspects of life, for active participation as workers, political agents, community participants, family members, participants in the social and cultural life of the nation—can only be systematically squeezed out of the high school by the standards movement and its narrow emphasis on college preparation.

Finally, still other reformers have challenged the high school to become more intrinsically interesting, since so many students report being bored throughout their high school years. The standards movement does nothing at all to respond to this critique. Instead, by eliminating the possibilities of anything but the conventional college track, it leads to a narrow menu of conventional academic coursework for all students, explicitly adopting the existing college prep curriculum as the default approach to "College for All." And, it fails to offer any thoughts on how to incorporate more intrinsically motivating instruction with such strategies as closer adult-student relationships, greater autonomy, opportunities to construct personal meaning in a well-structured environment with clear purposes, multiple paths to competence, and a deeper understating of educational and life options.[61] The standards movement leaves unchanged one of the most damning critiques of the high school: that all too many students regard it as a chore and a bore, distinctly secondary in their priorities to their social and cultural lives, recalling Paul Goodman's critique of five decades ago: *Plus ça change, plus c'est la même chose.*

Any high school reform that responds to only one of these four criticisms is likely doomed to remain partial and incomplete, to produce in another decade or generation still more critique and reforms. Higher standards at the expense of equity and interest is a poor bargain. But then

again, so is greater relevance and interest at the expense of rigor—something that has happened with traditional vocational programs, some general track courses, some experience-based learning, and almost any subject that is converted into fun and games; these all deprive students of the competencies necessary for full participation in adult life. The appropriate challenge for high school reform, then, is to respond to all four of these critiques, rather than emphasizing one to the exclusion of others.

How might we as a society do this? While no one has given us a commission of our own to direct, our earlier writing allows us to limn the elements of more thorough reforms. We have both worked for nearly two decades on ways of restructuring high schools to make them more academically challenging, relevant, equitable, and engaging. One approach—the one we choose to advance here—is currently called multiple pathways by some advocates and seeks to develop theme-based approaches—or pathways—through high schools, somewhat similar to the majors and concentrations prevalent in postsecondary education.[62] Some of these might be broadly occupational (business, medical occupations, IT, or industrial production) and some might involve non-occupational themes (social justice, environmental concerns, problems of cities, or the patterns of immigration), but all of them would provide room for examining the important occupational, political, and social issues of adult life in the process of teaching disciplinary subjects. Rather than a one-size-fits-all approach, these theme-based pathways offer multiple ways for students to graduate ready for both college and work, not one or the other. At best, these pathways also prepare for civic participation by embedding the curriculum in the workings of social institutions as well as workplaces.

Such configurations have the distinct advantage of *not* looking like the conventional high school: while calls to replace the nineteenth century model are sometimes vague in their details, pathways approaches offer a clear and distinctly different alternative. They address relevance, and they allow for a wide range of internship and service learning experiences. Such approaches are consistent with the basic precepts for greater motivation and engagement in the high school, whereas the standard academic curriculum violates almost all of them. Along with these benefits, pathways approaches also offer students significant choices, making the likelihood of greater students interest much higher. And, if pathways approaches enhance motivation and engagement among students who are otherwise alienated from school, then they are likely to enhance equity as well, particularly as measured by rates of high school completion and college enrollment.[63]

To be sure, some advocates of college prep as the default track fear that such pathways could degenerate into traditional vocational education, with its low ambitions, weak effects on traditional academic competencies, and low-skilled prospects. Therefore, high schools choosing occupationally oriented pathways must be ever vigilant about the specific occupational areas offered and their likely student population. It is

essential, if challenging, to create pathways attractive to a broad range of students, not just high-achieving, high-ambition students or their low-achieving, low-ambition peers. Another daunting challenge is to promote more fluid versions of requirements, since teachers need to be able to cooperate in constructing the integrated curricula that make pathways coherent—perhaps a wrenching experience for those steeped in the tradition of academic isolation. Still, the pathways approaches reflect a clear alternative to the 19th century high school, one which offers the best chance of escape from the endless critique/reform cycle high schools endure.[64]

What about rigor? Test-oriented conceptions of rigor and content rigor, the only conceptions promoted by the standards movement, lead back to the conventional academic curriculum with all its deficiencies. Another challenge, then, is to redefine rigor, to shift to the other conceptions mentioned earlier: rigor involving higher levels of sophistication, shifting toward such higher-order skills as creativity and innovation (mentioned so often by *Tough Choices or Tough Times*); rigor as application and transfer, crucial to employment as well as the demands of civic and community participation; and rigor as breadth of competencies or "intelligences," attentive to the many capacities necessary for adult roles and to the ideal of a well-rounded individual, able and eager to participate in the many facets of adult life. All of these can be incorporated into a curriculum; all of them can be assessed, sometimes through projects, often through demonstrations or portfolios. They cannot yet be assessed with conventional multiple-choice tests, primarily because nearly a century of work has been devoted to assessing conventional academic requirements, eclipsing any interest in developing alternative assessments for other kinds of goals. Yet another challenge of creating enduring pathways, then, will be to develop assessments aligned with new alternative conceptions of rigor.

In this new model for high school, responsibility for standards and rigor is distributed throughout the educational community rather than being concentrated in an exit exam or other assessment, imposed top-down with no regard for the teaching challenges they create. Teachers are certainly on the front line, and some of them may require greater content knowledge as well as professional development to help them better understand new goals and translate them to effective classroom practice. Leaders—teacher-leaders, coaches, assistant principals and principals—are responsible for effective professional development, observing classes and offering constructive feedback. Districts are responsible too, for supporting schools as they work to improve instruction and for refraining from undermining them with constraints, low-level curricula, and bureaucratic requirements. Employers can provide other sources of moral authority and information about workplace standards, and civic leaders and community-based organizations can so much the same for community participation. External college admissions requirements will persist, of

course, and add their own forms of test-based rigor and course-based rigor. And there's certainly room in a distributed approach for standards embedded in state assessments, particularly for diagnostic purposes—but not for tests dictated without a thought to implementation. In pathways approaches, there are many routes to rigor and standards, and they all must be embedded not only in a variety of professional development and school practices, but with the involvement of employers and civic organizations.

And yet restructuring the high school, though pathways or other internal learning communities, is not enough. There's evidence that simply restructuring schools does little to improve learning, however defined. That goal requires concerted attention to the quality of instruction, specifically to the task of moving teachers toward the pedagogy usually described as constructivist and student-centered, or as balanced.[65] Such transformation involves helping teachers develop a new conception of both teaching and learning, and it requires a significantly different type of professional development than the usual Friday afternoon, one-shot workshops. Instead, schools must nurture learning communities where teachers work collectively to improve their instruction through such activities as observing one another's classes, examining and discussing student work collaboratively, developing their own conceptions of standards, and bringing in outside experts as needed, without undermining teachers' own expertise. Such professional development also best explores what Lee Shulman has called pedagogical content knowledge—the application of alternative pedagogical strategies to specific content areas.[66] Improving instruction is almost surely more difficult in the high school than in middle and elementary schools, because of the pull of the disciplines and of college entry requirements.[67] However, without a concerted effort to make the improvement, neither the proponents of higher standards nor the proponents of multiple pathways are likely to be successful in improving learning of any kind.

We also suspect that, particularly for the goal of equity, the addition of many more non-school support services for school students is a necessary third strand of reform.[68] But this possible reform is never mentioned by proponents of rigor, with their single-minded attention to the cognitive.

So our reform agenda is a complex one, incorporating elements of restructuring, instructional improvement, and enhanced support services. Given the multiple demands we place on high schools, and the varying critiques of its current state, nothing less than a multivalent approach to reform will do. If, as the proponents of higher standards do, we as a society choose only one dimension for improvement, we are all too likely to find ourselves perpetuating the cycles of high school critiques, reforming again and again and again without real solutions for the crises of the high school.

Recommendations

The push to enhance rigor and standards behind the high school diploma is seriously flawed. Moreover, any gains come at the expense of other goals for high school reform, including equity; curricular relevance; and student interest. A more promising approach to reshaping the high school involves pathways, structured around a coherent theme, either broadly occupational or non-occupational. Focusing on a single theme nurtures multiple concepts of rigor. Moreover, the approach distributes responsibility for standards throughout the educational community, and it provides students with the benefits of curricular choice and several routes to graduation.

We recommend, then, that:

- Proponents of standards consider conceptions of rigor aside from the conventional test-based and course-based conceptions.
- The uneven application of standards be more seriously examined. High standards are already present in the best high schools, but many other schools, especially in urban areas, lack the capacity to meet high standards. The central problem is therefore one of inequality, whereas the movement for standards has largely neglected the issues of raising achievement for the lowest-performing students.
- Alternatives to the conventional academic program be more seriously considered, partly as ways of achieving more than one goals of the high school reform movement. In particular, multiple pathways through high schools provide opportunities for developing multiple conceptions of standards as well as distributing the responsibilities for standards to a broader group of stakeholders.

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