



EDUCATION BEYOND THE RHETORIC: MAKING “RIGOR” SOMETHING REAL

“What, then, do we see as the basic curriculum for all students? Broadly defined, it is a study of those consequential ideas, experiences, and traditions common to all of us by virtue of our membership in the human family at a particular moment in history.

These shared experiences include our use of symbols, our sense of history, our membership in groups and institutions, our relationship to nature, our need for well-being, and our growing dependence on technology. These themes...are based, in large part, on traditional academic subjects.

Together they form a core curriculum that enlarges one’s vision, and they are, we believe, appropriate for every student – not just the college-bound.”¹ – Ernest L. Boyer

INTRODUCTION

For this year’s ninth graders, the future is simultaneously exciting and uncertain. The world these students inherit is one in which technological advances, trade laws, and economic shifts have made near ghost-towns out of the factories and plants their parents and grandparents worked in. These are technologically savvy students; they are more likely to watch a podcast than to read a book. They are also less likely to be as well-educated as their parents. And though the borders that delineate countries are more meaningful to politicians and cartographers than to them, these young people will be competing for jobs in a global economy – one in which those who learn *earn*. And importantly, one in which the young people in many other countries are becoming better educated than our young people.

In *A Nation at Risk*, the proverbial “Once upon a time” beginning for education policy discussions today, the National Commission on Excellence in Education anticipated the challenges these students face. Among

its recommendations, the commission called for a rigorous high school curriculum that would prepare students for a world that was changing fast and growing smaller each day.² Since then, educators and policymakers have responded by improving accountability systems, teacher education, and most importantly, student achievement.

Twenty-five years after *A Nation at Risk* was published, its most important contribution might be characterized as the foot that applied the brakes on a well-meaning though misguided trend toward benevolently low expectations for student achievement – a trend that embraced reduced rigor as the best avenue to expanding educational opportunity to all. The report raised important questions about what Americans value in our education systems and served as the impetus for a discussion about how to embed high expectations and rigorous coursework in the high school curriculum. It fostered an exploration of fundamental questions: Can all students learn? What do we want our systems of education to promote – access for all students,

excellence for a few, or some combination? Are the messages sent to students transparent and evidence-based statements of high expectations and reinforcements of student success, or a confusing list of seemingly endless options with hidden penalties, some of which make the difference in economic survival versus struggle? These questions are not academic in nature – they’re essential, and the way we answer them at any given time has an enormous impact on our young people.

In addition to posing fundamental questions, *A Nation at Risk* recommended solutions. Among these solutions, it offered a vision of what a rigorous course of study in high school could look like.³ But it did not offer a definition of rigor itself. *The absence of this definition is significant.* The fallout from our failure to define rigor is significant, too. Today, data show that more than half of all high school graduates take at least one remedial math or reading course in college.⁴ In addition, though 55 percent of high school graduates

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go on to a college or university,⁵ many do not complete a degree. And the disparities between the success of those from families of means, and to those from economically deprived backgrounds are

substantial and jeopardize the United States’ continued economic prosperity and world leadership. While many factors influence this attrition, research indicates that the quality and intensity of a student’s high school education is a major element: in fact, it’s a better predictor of bachelor’s degree attainment than any other social factor, including income or race.⁶ Even with this information, however, academic rigor remains elusive, both as a concept and a reality.

The lack of rigor in our system is due in large part to cultural disagreement about the purpose of rigor, its necessity, and its definition. States, which have been charged with leading the effort in educational reform, seem to aim for quality but are confused by multiple definitions of rigor, most of which aren’t definitions at

all. What’s more, states resist definitions of rigor that might somehow limit choices for students. Surely, rigor isn’t (or shouldn’t be) defined by the “we know it when we see it” assertion. And yet too often, it seems to be. There’s a pervasive lack of agreement about educational rigor and quality, one whose effects are obvious at multiple levels of education and government, including the college readiness signals sent to students and their families, the long-standing tension between rigor and access (which most believe are orthogonal concepts), and data availability and use.

Ultimately, we assert that achieving a rigorous and relevant system of education is dependent upon our ability to agree on the definition of rigor and to express that definition in the form of knowledge, skills, and abilities that students must learn. We assert that a rigorous education is not measured simply by the number of courses taken or the GPA earned in those courses but by the academic intensity of courses and by their quality: the extent to which they actually prepare students to successfully participate in the world of work and college. Finally, we assert that American education needs a tangible definition and measure of rigor, a specific standard that can be achieved in the context of our multilayered, multileveled system while respecting both local and state control.

THE GLOBAL ECONOMY AND EDUCATIONAL ATTAINMENT

The global economy has had a major impact on U.S. businesses, from manufacturers to service providers in virtually every industry. Just try to call a customer service phone line for any major company or technology provider – even states have outsourced customer service call centers overseas. The evolution of a truly global market for goods and services has been a boon for American business, but it has presented a challenge, as well: today, U.S. firms compete with more companies from more countries than at any time in history.⁷ And while globalization has been good for business, it hasn’t always been good for the American people. What do students in once heavily industrialized states like Michigan or North Carolina or Ohio have to look forward to in terms of jobs? Their parents and grandparents graduated from high school and immediately went to work in factories that employed multiple generations of families. Those days are over: in the last several decades, such jobs have dwindled.

Michigan alone has laid off some half a million workers since the 1980s.⁸ The culture of family members working with each other is gone. What is in place for today's ninth graders, in terms of jobs? Their future, as noted before, is uncertain.

The last two decades have seen a shift from place-bound economies with relatively fixed metrics to a rapidly growing, quickly changing global economy that embraces emerging markets in developing nations. According to a report from the Council on Competitiveness, literally "billions of people in emerging economies have entered the global trading system, opening consumer markets and labor pools of unprecedented size."⁹ While industrialized nations are "projected to see their populations shrink," most emerging economies "are projected to grow rapidly."¹⁰

But developing nations aren't simply markets. They're major product and service providers, as well – increasingly sophisticated ones. In fact, developing nations such as China and India yield a growing number of the globe's young professionals each year. In 2003, for instance, China produced over twice as many engineers as did the U.S., while India produced 40 percent more accounting and finance specialists.¹¹

The past 20 years have also seen a rapid rise in the importance of new competitive values: Deborah Wince-Smith, the Council on Competitiveness's president, pinpointed "insight, imagination and ingenuity" as essential drivers of the 21st century economy when she addressed the U.S. House Science and Technology Committee in 2007.¹² Traditionally, the American economy has epitomized innovation and entrepreneurship. But thanks to improved science and technology education, and to a greater focus on the value of education and the importance of a strong work ethic in developing nations, other countries are catching up. The global economy seems to have the properties of a zero-sum game. And Americans are on the losing end right now.

A Nation at Risk anticipated this possibility. However, all is not bleak: in the last 25 years, the United States has made significant progress when it comes to education. In high school, the number of students taking a college preparatory program has quintupled: when *A Nation at Risk* was published, 10 percent of

all students completed such a curriculum; a quarter century later, the rate was 52 percent.¹³ In elementary school, too, American children are learning more and scoring higher in math and reading on the National Assessment of Educational Progress (NAEP), taken in grades

four and eight. Between 1990 and 2007, Hispanic students' fourth grade math scores increased on average by 26 points; white students' scores increased by 28 points; and black students' scores rose by 35 points (based on a scale of 0 to 500 points). This trend continued in the eighth grade, with Hispanic students' average score increasing by 19 points; white students' score growing by 22 points; and black students' score rising 23 points.¹⁴

However, while students of all race/ethnicities are doing better, there's still much work to be done. A number of studies show that our systems of education are not nearly as rigorous as they need to be. In the U.S. we still have an achievement gap. Just one example: Black students' 2007 NAEP average scale scores in math at grades four and eight are approximately what white students average scores were in 1990.¹⁵ There's a growing global achievement gap, too, indicating that our system of education is not as rigorous as it needs to be. Internationally, U.S. students' performance on the PISA (the Organisation for Economic Co-operation and Development's Programme for International Student Assessment) ranked us among the lowest of the countries participating: the U.S. came in behind Lithuania, Latvia, Spain, Azerbaijan, and the Russian Federation.¹⁶ The collapse of communism, the disappearance of the Iron Curtain, the fall of the Berlin Wall and other events in the last three decades have freed previously oppressed people to participate in the world as economic equals. We assert that our

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ongoing arguments about rigor and quality – the endless meetings and “hand-wringing” exercises that never resolve the matter – along with the misguided belief that rigor and access aren’t compatible, have allowed other countries to “lap” the United States in some educational areas. On point, even our college graduates are not performing well. In 2006 the National Survey of America’s College Students demonstrated as much: “50 percent [of students] at four-year colleges did not score at the proficient level of literacy, meaning they lack basic skills like summarizing

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arguments in a newspaper editorial.”¹⁷ Finally, in a 2005 survey, high school graduates themselves reported that if they could do it all over again, they would work harder in high school.¹⁸

Taken together, these studies deliver a singular message: American students are losing their ability to compete in the global marketplace and economy – and we assert that lack of academic rigor is one of the major reasons. American educational systems are simply failing to provide a sufficiently rigorous education. How can we explain this failing to our entering ninth graders and their parents? More importantly, what can we do about it?

SIGNALING COLLEGE READINESS: MIXED MESSAGES

Students understand the importance of going to college, even as adults create policies that muddy that path. For every 100 ninth graders, 67 graduate from high school, 38 enter college directly upon graduating from high school, 26 are still enrolled in their sophomore year of college, and only 18 graduate with a two-year degree within three years or a four-year degree within six years.¹⁹ What accounts for this sharp attrition?

In part, the answer lies in the mechanisms that states and school districts use to determine high school

graduation requirements. There are two primary ways states are tackling this task: by changing state graduation requirements and by legislating a “default curriculum” for all students. The differences between these two methods are not always clear.

State high school graduation requirements are characterized by several factors: they posit a minimum course of study; they offer multiple options that a student can pursue; and they do not require parental or student consent to participate in the most basic course of study. In recent years, 18 states have developed or increased their graduation requirements for a standard diploma, effective for graduating classes between 2006 and 2011.

States that have changed or increased high school graduation requirements may offer several different types of diplomas, which require different levels of academic rigor, ranging from basic to advanced coursework. In these states there’s no uniform policy that requires all students to take the same courses. The onus is on students and their parents to know the differences between their options and select the appropriate level of rigor, one that will accommodate their college or career plans after high school.

Let’s stop for a moment and think about what this has meant for parents and their children. Parents believe they’re sending their children to high school to receive an education that will prepare them for work or for college once they’ve graduated. As long as their children obtain a diploma – within the multiple options offered – then all is right with the world, right?

Wrong. Often parents allow their own knowledge of high school and their beliefs about the currency of the diploma to color their expectations for their children: they erroneously assume that the currency of today’s diploma is what it was when they graduated. Today, in some states there might be half a dozen ways to achieve a high school diploma – and not all those ways prepare students well for work or college. While schools will say they no longer “track” students and in fact provide them with as many choices as possible, the simple act of offering so many options ends up becoming a kind of “tracking” in practice. Students have the responsibility to know which courses and diploma options meet the requirements of which college scholarship. And they must decipher the

requirements for admission into college, as well as choose the preparation that allows them to perform well on college placement exams in order to participate in the major of their choice. With few exceptions, it is a system of choice without guidance.

A default high school curriculum is a course of study designed to provide students with the necessary preparation to succeed in college and work. A default curriculum has four distinct features: it is supposed to be a “rigorous” course of study, not a minimum one; it is implemented statewide; it is provided to every student; and students, with the consent of their parents and in conjunction with notification to the school, may “opt out.”

In contrast to state graduation requirements, which put the responsibility for meeting them in the students’ hands, a default curriculum holds the school administrators and teachers primarily responsible for providing a rigorous course of study to every student. In theory, students can trust their school and state to prepare them with the knowledge, skills, and abilities they will need as they enter college or the workforce. All students are held to the same high level of expectations.

Most of the statewide default curricula have been in existence for a short time, and little research evidence is available to demonstrate the impact of this policy reform.

Nevertheless, default curricula hold the promise that every student will be provided with the necessary preparation to succeed in college or work. While increasing

graduation requirements via a default curriculum is a step in the right direction, it may not be a big enough step, especially if the default curricula only focus on

units within core content areas. As long as states focus on the minimum that students must do – rather than on creating a truly rigorous course of study based on what we know students need to succeed – it is less likely that they will inspire students to prepare well for the next step in their lives, whether that’s going to college or starting a career.

IMPLEMENTING A DEFAULT CURRICULUM: THE CHALLENGES

Recent studies indicate there are 11 states with a required or default course of study in high school, but closer examination of the courses required demonstrates a continued ambivalence about which courses and how many constitute a rigorous course of study.²⁰ These studies reveal that in many states a “default curriculum” refers only to the number of units within a particular area of study that are required for graduation.

Politically, the default curriculum sounds good, makes the newspaper with supportive headlines, and garners good press on the editorial page. However, let’s take a state in which algebra I, algebra II, and geometry are required for high school graduation. Sounds good, sounds rigorous. But if we look deeper, we can see that, even when students *do* take these three courses, they still don’t score high enough on ACT or SAT exams to go into entry-level college courses without remediation. How can this be?

One of two things is likely to have happened. First, perhaps the actual content in the three required math courses was not up to speed. This can happen even with teachers who have the best intentions if they haven’t paid attention to the kind of competencies that entry-level college courses require (and sometimes that is because higher education has never adequately communicated to K-12 teachers what those competencies are).

Secondly, once the default curriculum is set and the number of mathematics credits is specified, the kind of courses that can “count” toward meeting the algebra I, algebra II, or geometry criteria are all over the place in terms of rigor, quality, intensity, and relevance to the competencies expected in the default curriculum design. States are setting default curricula, in other words, but diluting that curriculum with courses that don’t measure up. Sometimes this happens because

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of political expediency, because of competing funding among separate K-12 or career/technical education entities, or because of that well-meant but misguided benevolence.

For this and other reasons, unless we discipline the way we educate and assess the achievements of our students, today's ninth graders in many states will enter an uncertain world without the necessary preparation. Policy does make an impact on the individual student. And for the student and parent who believe they are doing the "right thing" in order to get a high school diploma in states where the choice of courses, within a default curriculum, doesn't measure up, the education system ends up providing a high school diploma with very little currency for life after high school.

RECONCILABLE DIFFERENCES: RIGOR AND ACCESS

There is an undeniable tension that exists between the proponents of access and the proponents of rigor. This tension has fostered the myth that access and rigor are mutually exclusive – a perception that if you have one, you cannot have the other. Even more problematic is the assumption that the essential attributes of one inherently limit the effectiveness of the other. Data from the Southern Regional Education Board's High Schools That Work initiative shows that students who aren't doing well in a particular content area actually perform better when given a *more* challenging curriculum than when given a less challenging course of study.²¹ Furthermore, advances in career and technical education (CTE) pedagogy have demonstrated the value of rigor for high school graduates going directly into the workforce, along with the capacity to imbed rigorous coursework in an applied CTE curriculum.²²

"Access" must mean something more than the ability to get a student's foot in the door of a college or university. Access without the academic ability to actually do college-level coursework is meaningless. Yet access without readiness has become so pervasive in American higher education, often celebrated as "open admissions," that retention rates have suffered tremendously.

Higher education policy initiatives are increasingly focused on access *and* success. Policy leaders in higher education are taking a hard look at retention and persistence but often with a fairly narrow lens, studying

only those elements in place for the student in the college environment. But many retention issues aren't purely a function of the higher education environment: instead, students' failure is rooted in high school or middle school, when policies didn't provide them with the kind of knowledge, skills, and abilities they'd need to actually succeed in college.

Case in point: A high school principal noted that his valedictorian and salutatorian were always offered a scholarship at the college closest to his school. In 15 years, only one of the students actually made it through and obtained a degree. That's one student in 30. Every one of his school's top two students over the past 15 years had needed at least one remedial college course. He knew that the problems didn't lie in the courses the students chose or in the nature of the college environment (though that is a topic for another paper) but in the lack of rigorous preparation his teachers were providing to the students. "I really don't know what I'm going to do," he said. "I have the teachers I have. They've all been here a long time. The kids – they all just have so many choices for their classes, it's hard to help them make the right ones."²³

The tension between rigor and access is also displayed in the debate regarding state-funded college scholarships. To whom should they be given? To all students who receive a certain GPA regardless of the courses they take, or to the few students who take advanced coursework? But are students who take algebra I and receive an A as deserving to receive the scholarship as students who go on to take trigonometry and receive an A? Proponents of access argue that any attempt to increase the type of courses required fundamentally denies students access to postsecondary opportunity. Proponents of rigor argue that students who are given indifferent or weak preparation but receive a scholarship are given a false promise: college is more affordable, but the student is not prepared to succeed. And parents and students are caught in the middle. With college tuition rates rapidly increasing, parents might well advise their daughter or son to take easier classes to secure a scholarship, not realizing that without rigorous courses, their child might not be able to maintain the level of academic achievement necessary to meet scholarship requirements.

The states that have been most successful in blending rigor and access in their state scholarship programs

are those that have taken family income into account early, when the students are in middle or high school. Students enter into agreements as to the courses they will take in high school. State scholarship requirements

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for coursework – unlike in the state default curriculum – are very specific: these students don’t have all the choices that are available to those who aren’t working to meet the scholarship

program’s requirements. Students often must agree to certain behavioral requirements as well, depending on the state. In the end, though, students are given the scholarship for taking those specific rigorous courses and for completing the requirements of the program. In such states, we see the impact of blending need and merit, including higher ACT/SAT scores, higher GPAs, and other indicators of college readiness – students tend to stay in college at a greater rate than their peers, for instance.

However, even with the specific, rigorous curriculum required of these students, some still need remedial work for one or more entry-level courses. When that happens, despite the fact that the state scholarship program requires the most rigorous curriculum and very specific courses, the reason is clear: the competencies that were expected for college readiness were either not taught or not learned. Good feedback between higher education and the high schools can rapidly address this issue, provided it’s not done in a “blame” environment.

State scholarship programs such as these tell us several things. First, low-income and underrepresented students are not afraid of a challenging core curriculum in high school and do not require the misguided benevolence of low expectations in order to make it into college. Second, when earning a scholarship requires limiting their course choices, students step up and perform well. Third, in the instances where there are students who require remedial courses in one or more content areas, there’s a clear means to fix the problem: higher education needs to articulate the specific competencies needed to succeed, and high school teachers need to make sure those competencies are taught.

So, back to access and rigor – which is more important? In truth, we need both. By 2020 the United States will be at least 12 million educated workers short.²⁴ Not only will we have an insufficient number of educated workers, but more of our well-prepared students will seek postsecondary education and training outside of the U.S. as our international competitors steadily increase the rigor and innovation of their education systems. We need a system that is as accessible and as rigorous as we can make it.

A WORD ABOUT DATA

Collecting data is so well-integrated into education policy and practice that it has almost been taken for granted. We know how many students belong to different racial and ethnic groups. We know how long their teachers have been teaching. We even know the gender of our school bus drivers. We know everything we need to know. Almost.

Surprisingly, the data that are missing relate to the information about what courses students are taking and when. The data systems that have been created – their fundamental philosophy and architecture – do not provide information or a means to generate information about a core educational activity: the courses that high school students take and what is being taught in those courses. We literally know more about our bus drivers than we do about whether or how many students are taking physics or Spanish or American history. Fortunately, some states are addressing this issue.

One of the important contributions the federally funded State

Scholars Initiative (SSI) has made has been to work with 47 school districts in 10 states to collect student course-level data, analyze it, and develop scalable model data systems. These data

play an important role in helping SSI partner states understand which aspects of their programs are most efficient in promoting change for student course-taking and achievement. Over the past two years, the State

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Scholars Initiative has worked with partner states to develop systems that produce data that is “defensible, comparable across states, and understandable to experts and lay people alike.”²⁵

SUGGESTIONS TO CONSIDER

The evidence can seem overwhelming. How do we change a system of education in 50 states, four territories, and the District of Columbia – and in 14,199 school districts,²⁶ 97,382 K-12 schools,²⁷ and 4,276 two- and four-year postsecondary institutions²⁸ so that it truly benefits some 47 million K-12²⁹ and 18 million college³⁰ students? How can an enterprise so large and decentralized change direction? What will it take to move from “anything goes” to “rigor and relevance”?

In the face of the data, the structure of American education, and a deep and abiding commitment to locally controlled schools, finding a solution may appear untenable. As we have demonstrated, students receive a confusing array of messages about what is necessary in high school and required in college. But with a few modest changes, we can create systems of education that are more responsive to the needs of students entering a rapidly changing world.

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Suggestion 1: Define rigor. Although the call for a rigorous course of study has been made repeatedly during the last 25 years and important contributions have been made, including the Advanced Placement (AP) program, American Diploma Project, International Baccalaureate (IB) program, Standards for Success, and State Scholars Initiative, to name just a few, only one definition of rigor has emerged: that provided by ACT, and only recently. Think about that – with this single exception, since *A Nation at Risk*, which called for a rigorous course of study, few have been willing or able to *define* rigor. And certainly we have reached no consensus on what rigor means. This means that states, schools, teachers, and even policy professionals have talked about rigor, made

policy regarding rigor, and promised a rigorous program of study without ever defining what rigor *is*. It is no wonder, then, that states and teachers have been all over the place in trying to create rigor – they didn’t know what it was, exactly, they were trying to achieve.

In its 2007 report, *Rigor at Risk*, ACT tackled this problem head on, defining rigor as a combination of *academic intensity* – which relates to the specific courses students take – and *academic quality*, or the content of those courses. ACT’s definition is particularly compelling because it has developed and assessed a core course of study that is externally validated. As the authors of *Rigor at Risk* wrote, “The essential agenda is to improve the quality of core courses that really matter in preparing students for college and work. The time has come to improve the quality of core courses so that all students have equal opportunities to become prepared for postsecondary education – whether in a two-year or four-year institution – and for work.”³¹

Suggestion 2: Develop one rigorous standard for all students. We should learn from the state scholarship programs that show the impact of rigor on academic readiness for college and develop one rigorous standard for high school graduation for all students (*and* define rigor). While lawmakers, policymakers, and parent organizations spend time arguing about whether a student needs geometry or needs to learn a trade during high school, let the rigorous standard program of study happen. Let the naysayers continue to argue after the fact, while students benefit from a genuinely rigorous curriculum. After a number of years, after the data has come in, after teachers have amassed their own data and learned how to use it, after more students have prepared for college, attended, and graduated, the arguments will diminish. Nothing silences the opponent like success.

We know that American education is a multifaceted, multilayered set of systems at the local, state, and national levels. But the decentralized nature of American education need not hamper us from responding to student needs. Benchmarking American student performance to the 10 best-performing countries in the world,

for instance, would help us to create a standard of rigor that is usable at every level of education.³² A high school principal, a high school math teacher, or a parent is interested in whether the performance of their students or their children matches up with the rest of the world.

Create a system that allows them to *know*.

Suggestion 3: Create state policy that specifically supports rigor, along with externally validated assessments.

Using the definition above, we need to lay out the specifics of a rigorous course of study for high school diploma options and a default curriculum with a set of state standards that, at the very least, incorporates college readiness standards.³³

In addition, we need to develop statewide data systems that are capable of generating information about student course-taking patterns and the competencies taught and learned in those courses. Courses can only improve when teachers receive feedback data that identify concepts students have difficulty with. Teachers can use the data to analyze their teaching strategies and make necessary changes.

Lastly, we need to develop state assessment policies and assessments that focus on what students need to know and be able to do in order to enter college or work after high school and succeed. Assessments based only on state standards that have been developed in isolation and are criterion-referenced lead to a scenario in which a state is always measuring itself against itself (and students are doing the same). We should blend criterion assessments (tied to standards that include those related to college readiness) with normative data to ensure that states are progressing in student learning at a rate commensurate with other states and, if possible, with the nation as a whole, as well as with other nations.

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Suggestion 4: Provide teachers and administrators with professional development opportunities related to curriculum, standards, and assessment.

Teachers and administrators need professional development opportunities that focus on what a rigorous course of study is and that help them develop

skills to diagnostically assess and support students taking rigorous courses. Teacher education and leadership programs need to adequately instruct their preservice teachers and administrators in how to read, analyze, and use data in the classroom. Many programs provide courses that teach statistical concepts, while never taking teachers through the actual assessments used in their state (as just one example). Preservice teachers and administrators should be able to directly apply what they learn about data to their daily work in the classroom and at school.

CONCLUSION

Every 15 seconds a baby is born in the United States.³⁴ No parent holds a new infant in his or her arms and declares, “I want less for you than what I had.” Parents want more for their children, not less – but they don’t know exactly what their children will need in the world they’ll inherit as adults. We need to prepare the next generation with as many skills and abilities and as much knowledge as we can give them, if they’re to navigate an uncertain future. And our education systems are essential partners in this process.

But back to our ninth graders. Their prospects are both exciting and uncertain. High school *is* exciting, but if it does not provide the kind of coursework that contains the competencies that these ninth graders will need to succeed in college and work, it will only be a nice, four-year social-growth event.

High school should be a solid academic experience that is meaningful for our ninth graders. Their teachers should be up to date on the competencies they need to be teaching. The higher education institutions that prepare teachers should have taught them to teach and use data to make just-in-time remediation of concepts possible. The principals and superintendents should be

the instructional leaders for their teachers and students, as up to date on college and work readiness requirements as their teachers are. In addition, they must also have the skills to interpret data in ways that help them assess the efficacy of the education provided in their schools.

Today's ninth graders are entering high school during a time when their homes may be taken out from under them because of rampant foreclosures, when their parents may lose their jobs to better deals made by their companies on foreign soils, and when gas prices are soaring to the point that traveling outside their own hometown may be made impossible. In times like these, their knowledge of technology, which often supersedes that of their parents and even their teachers, can be their salvation. High schools should take advantage of students' technological expertise and capitalize on it, integrate it into the classroom, and even allow students to teach their teachers how to use it. A classroom that remains as out of date as the eight-track tape won't prepare today's ninth graders for the world that awaits them.

Most of the career options for the child born today have yet to be invented.

seamlessly. Despite all the pressures many of them are under, our ninth graders can achieve their potential; we owe them a high school that has everything they need to help them do just that.

We have asserted that the current landscape, with its marked *absence* of the definition of rigor, leads to multiple options that *do not* prepare students for college and work. We need a common definition to support our efforts to raise educational attainment, close the achievement gap, and prepare students successfully for college and work. And after a

To assure our children the opportunities of a lifetime – the ability to support a family, to engage in meaningful work, to participate in a global economy, and to explore the rights and responsibilities of citizenship – we have to prepare all students with the highest quality, most rigorous education we can create.

comprehensive study of American education policy organizations, we have only found one such definition. Policymakers should start with the definition of rigor posited by ACT, work with it, and make it work for their state. Until we all, in every state, define what we mean by a rigorous course of study, we run the risk of developing ineffective responses for the challenges we face. And so far, the responses have been ineffective. The nation remains at risk, perhaps more so than when the landmark study was published.

Most of the career options for the child born today have yet to be invented. To assure this child the opportunities of a lifetime – the ability to support a family, to engage in meaningful work, to participate in a global economy, and to explore the rights and responsibilities of citizenship – we have to prepare all students with the highest quality, most rigorous education we can create. It can be done. Other countries are doing this every day. We have to choose. And it's far past time to do so.

AUTHORS' NOTE:

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