

The Hunt Institute's

# BLUEPRINT

for Education Leadership

Former Governor James B. Hunt, Jr.  
Chairman

Judith A. Rizzo, Ed.D.  
Executive Director

April D. White, Editor  
Director of Communications  
awhite@hunt-institute.org

Founded by Former Governor James B. Hunt, Jr. in 2001, the James B. Hunt, Jr. Institute for Educational Leadership and Policy works with leaders to secure America's future through quality education. Working at the intersection of policy and politics, the Hunt Institute connects leaders with best strategies for developing and implementing policies and programs to improve public education.

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or to receive a copy via e-mail,  
please call 919.425.4167.



1000 Park Forty Plaza  
Suite 280  
Durham, NC 27713  
p: 919.425.4160  
f: 919.425.4175  
[www.hunt-institute.org](http://www.hunt-institute.org)

## World-Class Standards: Setting the New Cornerstone for American Education

Anyone who does not understand that today's students are competing in a global economy has his head in the sand. At this point in our history, we have no basis for thinking that the economy of the United States exists in a vacuum. Our traditional reliance on American ingenuity, our conviction that we lead the world in all endeavors, and any complacency that derives from this mindset has been challenged by the very real political, economic, and social issues that we face on a daily basis. In order just to maintain our position of influence in the world – let alone lead – we simply must invest in the quality of our future workforce. The workforce of tomorrow must be better educated, more versatile, and increasingly creative than ever before.

This reality is not state-specific; it is true for each state and for our nation. Failure to strengthen our competitive edge will have serious implications for the country as a whole, for states, and certainly for citizens. Education is key to both our individual and collective success. All of our students have the right to expect that the education they receive in our public schools meets the very highest standards of quality and rigor.

The individual right to a quality education transcends state boundaries. Each student must ultimately be prepared to prosper in the workforce – which in today's terms means being prepared to succeed in postsecondary studies. If this is not true for every state and every student, then we are not fulfilling our obligation to students, to their families, and to taxpayers. If we fail in this regard, we will jeopardize the chance for today's students to earn a living and become productive members of society. Such a large scale failure would also overburden our social agencies, our welfare system, and our health system.

The inaugural edition of *Blueprint*, in June 2008, focused on a review of the status of current state content standards, reporting research and deliberations conducted at our request by the National Research Council (NRC) in 2007 – 2008. What we discovered was that the level of variability among state standards was even more pronounced than previously reported. This variability means that depending where a student attends school, he might not cover the same material in a course called algebra I, or algebra II, or grade 4, or grade 6. Why should this be so? Is there a universal truth about math that is available only at an individual state level? Can there logically be 50 versions of algebra I? Do students in different states learn differently? Is geography necessarily academic destiny?

This issue of *Blueprint* addresses these and related questions. The ideas and information presented here reflect the research and discussions that took place during part two of the NRC study. Over the next 18 months, the Hunt Institute will continue working with the NRC to investigate other pertinent issues for standards based education.

Judith A. Rizzo, Ed.D.  
Executive Director

## CONTEXT

The current data on student achievement present a sobering picture. Only about 70 percent of American students earn a high school diploma. Of the students who graduate and enter their freshman year of postsecondary education, 28 percent must take remedial coursework.

According to a recent poll, most students who find themselves in college remediation courses actually earned As and Bs in high school. Despite the fact that these individuals would have been viewed as strong students in high school, they face an uphill battle in postsecondary courses and are much less likely to earn a bachelor's degree within eight years. The reasons for these data are many, complex, and interrelated. Let's look at the roles that content standards and performance standards play, and why the variability issue is a concern.

Standards are the cornerstone of a sound education system. Content standards define what students need to know in each subject area at each grade level. Performance standards specify the level of proficiency and content mastery that a student must demonstrate to be considered successful. In August 2007, the Hunt Institute commissioned the National Research Council (NRC) to provide an objective look at the way current state content and performance standards are functioning. During these meetings, experts said that content standards must be fewer, clearer, and higher than what we find traditionally in states. Currently, many states have not prioritized among their numerous standards; the standards include too many topics and excessive repetition within and between grades. In addition, many states have set unambitious levels for deeming students "proficient."

If a student takes algebra I, the course of study should be straightforward. Math is a fairly linear subject; a learner continues to build on previous knowledge as she progresses through the curriculum towards higher and higher levels. During the NRC

meetings, a panel of three experts reported that there is now general agreement about what should be taught in math. Considering this, we would expect the mathematics course of study to be universal: a progression from easier, more basic concepts up to more complex, sophisticated concepts and applications. Not so under our current system. Barbara Reys of the University of Missouri found that only four of 108 possible learning expectations for fourth grade math were common across 10 states. And William Schmidt of Michigan State University discovered that U.S. students choose from 286 different math courses and nearly 50 varieties of algebra.

Schmidt stressed that the enormous variation in the opportunities children have to learn makes it inevitable that many will be left behind. National, state, and civil rights leaders are concerned that if the variability between state standards persists, we will not be able to guarantee a quality education for each child. These leaders are interested in working together to create a set of content standards, starting with language arts and math, which individual states could voluntarily adopt. Prior to adopting the new standards, these leaders also want assurance that the standards lead to work and college readiness and are internationally benchmarked against standards in the highest performing countries.

If states are to develop a set of rigorous standards in common, guidance can be derived from the NRC's recent research and deliberations. If ever there were a time to build a better mousetrap, now is the time.

## KEY COMPONENTS OF A COMMON STATE EFFORT

### Define Quality in Content Standards

Researchers and practitioners convened by the NRC attested to the lack of consensus on what constitutes a "good content standard." The American Federation of Teachers, Editorial Projects in Education, and the Fordham Foundation have each looked at state standards but use different sets of criteria to evaluate their quality. Some of the criteria used include: specificity, clarity, rigor, balance of knowledge and skills, and teaching approaches. Karen Wixson of the University

of Michigan reported that the three organizations use these criteria in varying combinations and arrive at different conclusions. Wixson was particularly concerned to find that the evaluations did not look for evidence that states had included the perspective of subject area experts in the standards development process. Despite these efforts to evaluate content standards, we still lack consensus on the elements of a high-quality standard and how such a standard is constructed. Any national attempt to design K-12 standards must begin with a clearly articulated definition.

From a policymaker's perspective, high-quality content standards are those that get results – ultimately improving student achievement. During the NRC meetings, Douglas Harris of the University of Wisconsin-Madison explained that it is difficult to study the effect of standards on student achievement since many other factors are at play. Brian Rowan of the University of Michigan reflected on the fact that education policy is not yet grounded in evidence, and urged leaders, “As (you) think about implementing or improving the standards based reform movement, think about how to bring policy into the *evidence based* reform movement.”

Quality content standards are necessary, but are not sufficient. To determine whether content standards are having the desired influence on student learning, Harris recommends that policymakers and education leaders look for changes in intermediate activities: curriculum; assessment; instruction; teacher preparation; professional development; student supports; and accountability systems. Together these elements form a comprehensive system. However, the system will not be truly integrated until each element is aligned explicitly with clearly defined content standards.

### Characteristics of Content Standards that are Likely to Influence Instruction

In their detailed review of 31 states' standards, Andrew Porter and Morgan Polikoff of the University of Pennsylvania and John Smithson of the University of Wisconsin-Madison hypothesize that teachers are most strongly influenced by standards that have five characteristics.

1. They are specific in their messages to teachers about what they are to teach.
2. They are consistent (aligned) among themselves so that teachers receive a coherent message.
3. They have authority, in that they are developed and promoted by experts, are officially adopted by the state, are consistent with standards practice, and are promoted by charismatic individuals – meaning individuals who provide leadership and motivate those who must implement the standards.
4. They have power, in that compliance with them is rewarded, whereas failure to comply is sanctioned.
5. They have stability, in that they are kept in place over time.

Source: Porter, Polikoff, and Smithson, 2007

*“Most (state content standards) are good at driving a test, but they are poor at describing curriculum, or they are adequate at talking about what students should know, but they provide no guidance. They don't link across the years. They are not developmental in any way... **Guidance would be helpful to talk about what a good set of standards ought to look like** if it is going to be the driver of all these other pieces in the system.”*

—Brian Stecher, RAND Corporation

### Establish an Effective Standards Development Process

The process that states follow to develop their content standards consumes significant time and resources and requires considerable education and political expertise. Most states take great care to build consensus among a wide range of perspectives that often include subject matter experts, business leaders, parent and community groups, and sometimes political leaders. However, Schmidt found that content standards derived from consensus building do not provide a coherent foundation for learning. Lorraine McDonnell of the University of California-Santa Barbara explained that this process, while very democratic and representative, often results in a set of standards that lack focus. Diane Massell of the University of Michigan reflected on the reason for this outcome: “It is easier to build consensus when you have less specificity – you get more people under your tent. It is the politics of reform.”

Although subject matter experts are not likely to agree on every detail, their perspective is needed to ensure that the knowledge and skills set forth in content standards are focused and sequenced effectively. Despite the value that such experts bring to the development and evaluation of standards, Karen Wixson has found that the perspective of subject matter experts is receiving less attention now that states are focused on testing and accountability under No Child Left Behind (NCLB).

The goal of a national effort to design standards should be the identification of fewer, clearer, and higher content standards that form the basis of a K-12 education system that prepares students to succeed in the global workplace. This effort can include representatives from the same categories that states involve, but will not succeed if it is based on the same consensus-driven process. The effort should assemble appropriate expertise to review the best of what we have – ADP benchmarks, ACT's College Readiness Standards, College Board's Standards for College Success, AP

course content, McREL's Compendium of K-12 Standards, and standards in the highest performing nations – to produce a document that is honed to what we know about college and workforce readiness. An external group of content and learning experts must independently review the process and standards to assure that they are appropriately rigorous and reflective of the real world demands that will be made of students.

Participants in the effort to develop fewer, clearer, and higher standards will need to let go of what's "familiar and comfortable" and approach the work objectively. Whoever takes the lead in developing the content standards must be unbiased; the process must be guided by empirical data about what students need to know. If this effort is to include state-level representatives, care must be taken to avoid a product that is influenced by the desire to minimize change at the state level or protect the status quo. States expend a great deal of time and energy in not only producing their content standards, but also in promoting their standards development process and product. State representatives might bring a natural tendency to push for a set of standards that will not cause frustration back home, either by including items that they fought hard to incorporate or omitting those that they worked to leave out.

### Consider the Influence of Assessment

Assessment plays a critical role in determining what gets taught. Most educators and researchers agree that instruction is often driven by what teachers expect will be on the state test. Test items currently provide a more reliable roadmap than the often unwieldy standards documents or the lack of a clearly defined curriculum. Tests are necessarily more specific than the content standards; by limiting the number of test items, the state sends a message about what it considers important for students to know. David Driscoll, former commissioner of education in Massachusetts, explained how his state capitalized on the specificity of test expectations to focus and drive instruction. When the state content standards were found to be too vague to guide instruction, the Massachusetts Department of

*"We do teach to the test, and we can misdirect education by having the wrong tests. It is just critical that we get better testing. It is critical that we pay for better administration of them. It is critical that we don't do it alone – it is just too expensive."*

—Roy Romer, former governor of Colorado and chairman of the Strong American Schools campaign

*"We should be able to know... which programs are better – is this textbook working better than that textbook, is this reform working better than that reform. There is a wall between assessment and education that may be a contributor to why we are not doing more of that evaluation using our assessment data. But we could start doing that. We could start doing that right now."*

— Richard Patz, CTB/McGraw Hill

Elementary and Secondary Education developed a "bridge document" to translate the actual test frameworks for teachers.

Tom Toch of Education Sector pointed out that current state tests are built using only one-half of one percent of the average \$8000 spent per pupil annually. Since assessments have such a significant influence on what is actually taught in the classroom, states have a responsibility to invest more resources in the development of their tests to ensure that they are of the highest quality. In the 2001 publication *Knowing What Students Know*, the NRC explained that current assessments are the product of prior theories of learning and measurement. These theories have changed to reflect new knowledge, and assessment practices need to move beyond a focus on component skills and discrete bits of knowledge to encompass the more complex aspects of student achievement.

According to Karen Wixson, it is easiest to assess discrete skills and factual knowledge, so these types of content standards will be the focus of the state test. She explained, "The development process tends to winnow out the more complex and nuanced elements of learning in a discipline, and... the resulting state content standards are significantly curtailed versions of what discipline experts have described." Wixson has found that elementary and middle school content standards are the least likely to reflect sophisticated conceptions of learning in the disciplines. As states update their content standards to reflect the current demands of college and workforce readiness, they also need to refashion state tests to accurately gauge student learning.

Needless to say, any effort to design content standards – whether at the state or national level – must consider the assessments that will be needed to measure student achievement. As noted by Brian Stecher of the RAND Corporation, truly effective standards would actually provide guidance on how to determine whether a student has mastered particular content. However, those

standards should not be constrained by the limitations of our current testing regimens or assessment instruments. We have yet to explore all the possibilities for new kinds of assessments, and there is great potential for innovation in the field.

Demand has increased for assessments that are customized to match each individual state's standards, and Richard Patz, vice president of research at CTB/McGraw Hill, explained how the demand for customized state assessments makes it difficult for the test development industry to leverage what they have accomplished in one state to other contexts. David Driscoll added that Massachusetts, as well as a few other states, have undertaken substantially greater costs by releasing items from the customized state test once it has been administered. He explained that this allows for complete transparency in the system and provides an additional resource to guide instruction and learning – characteristics that should be standard in all state assessment systems.

In Patz's opinion, echoed by many at the NRC meetings, a move towards a set of shared content standards would give states the opportunity to pool their own limited resources to purchase assessments that use new technologies to provide teachers, administrators, and policymakers with crucial information about student learning. Many participants also agreed that the federal government could support state efforts by conducting research on the next generation of test design and implementation and making improved products available to states.

States are already seeing the value in common efforts, as demonstrated by two collaborative endeavors: 14 states from Achieve, Inc.'s *American Diploma Project* are implementing a shared algebra II assessment, and three states have developed shared assessments for grades 3-8 and II through the New England Common Assessment Program (NECAP).

## Consider the Influence of Performance Standards

Performance standards specify the level of proficiency and content mastery that a student must demonstrate to be considered successful; they are often referred to as the “cut score” on a test. States vary in the number of cut scores they set and the labels they use to report levels of student achievement. NAEP uses three categories to describe student achievement: basic, proficient, and advanced. States further decide how many and which test items students must answer correctly in order to qualify for one of those levels. These state test scores are used for accountability purposes to meet the requirements of NCLB and to calculate Annual Yearly Progress (AYP). There, the similarity stops. As Peggy Carr of the National Center for Education Statistics explained, “States vary widely in where they set their proficiency-level cut scores – some have very high expectations for students, and some have very low ones.”

The setting of performance standards has a significant effect on whether content standards will be implemented in the classroom. If the cut score on a test is set at a very low level, a student might be labeled “proficient” without having mastered important knowledge and skills. In this way, a low cut score could lead to some content standards being ignored completely. However, Laress Wise of the Human Resources Research Organization offered a reminder that simply raising cut scores will not guarantee improved student learning. Until all components of the education system are aligned with the expectations set forth in content standards and performance standards, student learning will not be affected.

NECAP is an example of a joint state effort that resulted in a strong set of performance standards. NECAP is a collaboration among New Hampshire, Rhode Island, and Vermont to develop grade-level expectations and test specifications in reading, writing, mathematics, and science. Rhode Island Commissioner of Education Peter McWalters explained that NECAP resulted in more challenging grade-level expectations and assessments than the states had developed on their own. McWalters reported that one of the most

## Achieve's Algebra II Assessment

Achieve, Inc. leads the *American Diploma Project (ADP)*, a network of 33 states that are committed to focusing high school graduation requirements on college and workforce readiness. Many of these states have used the ADP benchmarks as a reference when revising their own high school content standards. Fourteen ADP states, recognizing that they were stressing similar content in their standards, collaborated to develop an end-of-course algebra II assessment that would assess whether a student is prepared to enter and succeed in credit-bearing college-level mathematics courses. In Spring 2008, nearly 90,000 students across 12 of the 14 states in the partnership took the ADP algebra II end-of-course exam for the first time. Average scores across the states ranged from 21 percent to 35 percent, but Achieve, Inc. reports that states are not shying away from the rigor of the assessment.

important benefits of NECAP has been the political cover that it provides. Within a state, leaders face pressure to set lower cut scores in order to alleviate the political backlash that occurs when large numbers of children fail to reach “proficiency” on the state assessment. Since NECAP performance standards were set by three partner states, state leaders have been resolute in resisting pressure to lower the proficiency cut scores.

*“All states are at that place where you have to hang in there with the standard – don’t cut the standard – and figure out how to deal with the honesty of the fact that the kids are not making it.”*

– Peter McWalters, Rhode Island  
Commissioner of Education

## POLITICAL FEASIBILITY AND LEADERSHIP

Content standards form the foundation of our education system, and it is not an easy task to develop and adopt new standards. A few participants at the NRC meetings commented on the exhaustion that was felt after revising standards within their own state. Strong leadership at all levels is needed to create rigorous content standards. Leaders will need to set priorities, build the will to change, and navigate potential pitfalls to achieving world class content standards.

McDonnell identified six factors that policymakers must consider as they assess the educational and political benefits of adopting fewer, clearer, and higher content standards. McDonnell’s framework is valuable whether such standards are being designed within a state, by a coalition of states, or at a national level.

### 1. Perception

Before state policymakers will be willing to incur the political risks of adopting new standards, they need to see the potential benefits and incentives for making such a move. Will these standards be more rigorous? Will they impose additional burdens on the state? What problems will they fix?

### 2. State requirements for standards approval

The State Board of Education usually leads the standards development process, and some state legislatures must sign off on this work. As explained by McDonnell, the typical process is broadly inclusive, preventing snags of opposition yet yielding less focused standards. How will development of the new content standards address the tension between the traditional broadly inclusive process used in states and the need to develop clearer, fewer standards?

### 3. Likelihood that groups will mobilize in support or opposition

The more steps a standard-setting process involves, the more likely groups will become vocal in their support or opposition to the effort. How would the effort to develop content standards prevent a polarized debate?

### 4. Policy entrepreneurs

State-level networks will be needed to get this issue on the policy agenda and shape perceptions of the proposed change. Who will invest the necessary time and political resources to make an active push for the content standards? McDonnell noted that in many states, the state board of education retains formal authority to approve standards, and this body is often directly accountable to the governor.

### 5. Requirements to implement the policy

How will the new standards development process help policymakers consider the practical and political efforts that must be undertaken for the content standards to be effective? Considerations include existing capacity in states, competing priorities within a state, and the need to provide appropriate professional development for teachers and supports for students.

### 6. Timeframes

Some states are scheduled to update their content standards in the near future, but other states recently completed the process of revising their standards. How open will states be to making changes if they have just gone through their own intensive, multi-step process?

*“This is a long way from being the toughest thing America has ever done. Yet I would suggest to you, maybe other than World War II, the consequences, the risks we are facing, are as great as anything we have faced in a long time. We just simply have to do it... If we can't compete and we slip into a second-rate nation, we will never come back.”*

— James B. Hunt, Jr., former governor of North Carolina

## CLOSING THOUGHTS

Many citizens and leaders understand that having a single set of expectations for all students is a crucial first step to improving both student achievement and equity. In a recent national survey conducted by *Education Next* and Harvard's Program on Education Policy and Governance, 69 percent of respondents indicated that they want to see one test and one set of standards for all students, regardless of whether the federal government or the states design and administer them. A growing number of state and national organizations have also expressed support for a single set of voluntary content and performance standards, including Achieve, Inc., Alliance for Excellent Education, American Federation of Teachers, the Council of Chief State School Officers, the Commission on No Child Left Behind, the Council of Great City Schools, Fordham Foundation, the National Association of Secondary School Principals, the National Governors Association, and Strong American Schools.

Regardless of who takes the lead to develop these content standards, attention must be paid to the process that is used and the ultimate quality of the standards themselves; the standards must be grounded in evidence about the essential knowledge and skills that students need to be prepared for college and work. It is crucial that the standards form a clear, coherent message about teaching and learning in each subject area. And we must ensure that world-class content standards form the basis of every child's education.

We know that standards are critical, but are not sufficient on their own. We know that standards need to be supported by an integrated system, including curriculum, assessment, instruction, teacher preparation, and professional development. Though it may seem like an uphill battle to secure a set of world-class standards and learning opportunities for every American student, it is the right thing to do.

Great momentum is building to make this important change in American education, and our country's prosperity depends on it. Now is the time for bold action.

## Questions to Ask About Content Standards

Douglas Harris of the University of Wisconsin-Madison explained that state policymakers and education leaders will not know whether content standards are effective unless they look for evidence that the standards are influencing key elements of the education system. Leaders who seek such evidence can begin by asking the following questions.

**Curriculum:** Does your state have a clearly articulated curriculum that reflects the content standards for each grade and subject? Are the textbooks used in your state crafted around the content standards? If other curricular resources are made available to teachers in your state, how are these updated when standards are changed?

**Assessment:** Does the process for setting content standards include decisions about the knowledge and skills that students will need to demonstrate on assessments? Do students need to show mastery of critical content standards to be proficient on your state test?

**Instruction:** Are teachers aware when the content standards change? Do they see a connection between the content standards, curriculum and textbooks, and assessments?

**Teacher Preparation:** How are the content standards incorporated into P-12 teacher preparation? What do universities do differently when standards change?

**Professional Development:** Are school administrators aware when the content standards change? How are the content standards incorporated into professional development for P-12 teachers?

**Accountability System:** Does your accountability system provide incentives for teachers and administrators to focus their activity on the content standards?

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