

2006
The State
of State
STANDARDS

by **Chester E. Finn, Jr.,**
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INCLUDING
It Takes a Vision:
How Three States Created Great
Academic Standards

By Joanne Jacobs

AUGUST 2006



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This is the Thomas B. Fordham Foundation's first comprehensive look at the quality of state academic standards since 2000, before Congress enacted No Child Left Behind (NCLB). While 37 states have updated or revised their state standards in at least one subject during that period, on the whole they are just as mediocre as ever. The average grade for state standards across all subjects was a disappointing "C-minus" in 2000 and remains so today. Two-thirds of the nation's K-12 students attend schools in states with C-, D-, or F-rated standards.

Standards matter: Several analyses link strong state standards and gains on NAEP.

Over the past three years, expert reviewers for the Thomas B. Fordham Foundation and the Thomas B. Fordham Institute examined state standards in five subjects: U.S. history (2003), English/language arts (2005), mathematics (2005), science (2005), and world history (2006). The reviewers gave high marks to standards that are clear, rigorous, and right-headed about content. For example, excellent English standards expect students to read and understand important literary genres, worthy science standards place the teaching of evolution at the center of biology instruction, and strong U.S. and world history standards are organized around a chronology of key events with an ample supply of fascinating and important individuals.

Solid standards matter because they are the foundation of standards-based reform, the dominant education policy strategy in America today. They have become even more important in the NCLB era, when weighty consequences befall schools that do not rise to meet the standards (at least in reading and math). While the pros and cons of testing and accountability get most of the ink in newspaper debates, the standards themselves exert enormous influence over what actually happens inside classrooms.

While the states as a whole have not improved their academic standards, several jurisdictions have shown marked

progress, especially Indiana, New York, Georgia, and New Mexico. Unfortunately, others made their standards worse, including Utah, Nebraska, New Hampshire, and Wisconsin.

Three states stand out with perfect scores: California, Indiana, and Massachusetts. They are the focus of a separate essay by journalist and author Joanne Jacobs, "It Takes a Vision: How Three States Created Great Academic Standards." She tells the fascinating story of how these three jurisdictions managed to develop clear and rigorous standards while most others fell short. Some common themes appear in each: if you want great standards, you can't leave the process to committees. It takes strong visionary leadership and a willingness to fight (and win) the curricular battles. At the same time, bipartisanship is essential.

Do Good Standards Raise Student Achievement?

Several new analyses suggest a link between strong state standards and gains on the National Assessment of Educational Progress (NAEP):

- Ten states made statistically significant progress in the percentage of their students (or the percentage of their poor and minority students) reaching proficiency in fourth-grade reading on NAEP from 1998 to 2005. Nine of these 10 states received at least a C from Fordham for their English/language arts standards.
- Five states made statistically significant gains on the science NAEP between 2000 and 2005 at both the fourth- and eighth-grade levels, and three of these have among the best sets of science standards in the nation, according to Fordham's reviewers.
- The relationship is less clear in mathematics, though four of the six states that received "honors" grades from Fordham also posted statistically significant gains on the eighth-grade NAEP from 2000 to 2005, either for the state as a whole or for their poor or minority students. (Many other states made progress, too, however.)

State Grades in 2006 vs. 2000

STATE	CUM GPA 2006	CUM GPA 2000	2006 GRADE	2000 GRADE	2006 RANK	2000 RANK
California*	4.00	3.6	A	A-	1	1
Indiana*	4.00	2.4	A	C+	1	10
Massachusetts*	4.00	3.2	A	B-	1	8
New York	3.40	1.6	B+	C-	4	21
Georgia*	3.20	1.8	B+	C-	5	21
Virginia	3.20	2.4	B+	C+	5	10
Arizona*	3.00	3.4	B	B+	7	2
South Carolina*	2.80	3	B-	B	8	3
Alabama*	2.60	2.8	B-	B-	9	5
Minnesota*	2.20	1.6	C+	D-	10	39
Louisiana	2.00	2.6	C+	C+	11	14
Maryland*	2.00	2.2	C+	C+	11	10
Oklahoma	2.00	1.2	C+	C-	11	21
Illinois	1.80	1.6	C-	C-	14	26
Nevada*	1.80	2.2	C-	C+	14	14
New Jersey*	1.80	1.8	C-	D+	14	29
New Mexico	1.80	0.2	C-	F	14	47
Texas*	1.80	3	C-	B	14	3
West Virginia*	1.80	2.2	C-	C+	14	14
Colorado*	1.60	1.4	C-	D+	20	29
District of Columbia*	1.60	2.2	C-	B-	20	7
Kansas*	1.60	1.4	C-	-	20	N/A
North Carolina*	1.60	2.8	C-	B-	20	5
South Dakota*	1.60	2.6	C-	D-	20	8
Tennessee*	1.60	0.2	C-	F	20	47
Ohio	1.40	1.8	D+	C	26	20
Utah*	1.40	2.4	D+	C+	26	10
Rhode Island*	1.33	0.8	D+	D+	28	34
Delaware*	1.20	2.2	D+	C+	29	14
Mississippi*	1.20	1	D+	C-	29	21
Nebraska	1.20	2.4	D+	C+	29	14
Idaho*	1.00	0	D	-	32	N/A
Kentucky	1.00	0.6	D	D	32	38
North Dakota*	1.00	0	D	F	32	47
Oregon	1.00	1.8	D	D+	32	29
Pennsylvania*	1.00	0.8	D	D+	32	34
Vermont	1.00	1.2	D	D+	32	36
Maine*	0.80	1.2	D-	D+	38	36
Michigan	0.80	1	D-	D-	38	39
Missouri*	0.80	1.8	D-	D+	38	29
New Hampshire*	0.80	1.2	D-	C-	38	26
Arkansas*	0.60	0.4	D-	F	42	45
Connecticut*	0.60	1.4	D-	D+	42	29
Florida	0.60	1.8	D-	C-	42	21
Washington*	0.60	0.8	D-	D-	42	39
Wisconsin	0.60	1.6	D-	C-	42	26
Alaska*	0.40	0.6	F	D-	47	42
Hawaii*	0.40	0.6	F	D-	47	44
Montana*	0.20	0.4	F	D-	49	43
Wyoming*	0.00	0.4	F	F	50	45

*At least one set of subject standards has been revised or is currently under revision since review

A Little History

Standards-based reform is by far the biggest deal in American K-12 education today and has been at least since the nation's governors met with President George H. W. Bush in Charlottesville, Virginia, in 1989 to set national education goals.

Its underpinnings go back further, however, to the famed *Coleman Report* in 1966 and *A Nation at Risk* in 1983.

Standards-based reform is by far the biggest deal in American K-12 education today.

Coleman said, in effect, that there's no predictable relationship between what goes into a school by way of resources and what comes out by way of student learning. He said plenty more, to be sure, but this one insight was an ancestor of standards-based reform because it suggested that, if you're not satisfied with a school's (or group of students') results, you cannot count on rectifying matters by fiddling with school inputs, processes, and services alone. Few wanted to hear this at the time—after all, Lyndon Johnson had just signed the Elementary and Secondary Education Act (ESEA) into law a year earlier—but it has turned out both to be essentially true and to reshape how America thinks about education reform.

The urgency of reform was made plain 17 years later by the National Commission on Excellence in Education, which forcefully and eloquently declared that U.S. school kids weren't learning enough and U.S. schools weren't effective enough.

In other words: America had an acute achievement problem but couldn't count on solving it by tinkering with school inputs. Voila! Standards-based reform was born: a strategy that starts by setting forth plainly and clearly what results schools *should* produce and what skills and knowl-

edge students *should* acquire as they pass through school, then works across multiple fronts to attain those standards, measure progress all the time, and “incentivize” schools, educators, and kids to improve their performance.

At almost the same moment, a cadre of governors, mainly in the South, was figuring out that their states' prospects for economic prosperity hinged in large part on producing a better educated population. (“Better schools mean better jobs for Tennesseans,” Governor Lamar Alexander said about ten thousand times, and his colleagues were saying essentially the same thing.)

One state after another began to set academic standards for its schools and students. Whereas earlier statewide standards had typically been expressed in terms of high school course-taking requirements, time spent, and similar measures, now they began to be stated as skills and knowledge. Sometimes they were called “standards,” sometimes “frameworks,” sometimes “curriculum guides.” (California published its first frameworks for mathematics and science in the 1970s.)

When the President and governors met in Charlottesville in 1989, they went further. They set national education goals for the year 2000 including this crucial one: “American students will leave grades 4, 8, and 12 having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography.”

This was a cogent statement of the outcome that schools needed to produce: kids who could demonstrate “competency” in “challenging subject matter” in five key subjects. But who was to say what constitutes such subject matter and what is “competency”?

The short answer: individual states needed, and still need, to promulgate explicit academic standards. There was, to be sure, an abortive effort by the first Bush administration to develop “voluntary national standards,” but most of those turned out to be dreadful. They pretty much vanished ignominiously from the national scene, but it turns out they have had considerable lasting and mischievous

influence on the standards of individual states. In other words, this bout of national standard-setting ended up doing more harm than good.

The next big steps in this evolution came in 1994 when Congress passed the Goals 2000 Act and the Improving America's Schools Act, which in combination put considerable federal oomph and money behind standards-based reform.

This accelerated state-level efforts to set their own standards, and by 1996 enough had been done so that it occurred to us at the (then brand-new) Thomas B. Fordham Foundation to see how good they were. So we asked reading expert Sandra Stotsky to review available state standards in English/language arts, and in 1997 we published her ratings for 28 states as the first-ever Fordham report.

It wasn't a pretty picture. Only five states emerged with reasonably high marks; Stotsky deemed most of the others "immeasurable," found their early reading expectations sorely lacking, and noted their unwillingness to identify particular literary works (or even genres) that students should master. We then moved on to the other four subjects enumerated in the national goals and by 1998 had completed appraisals of all of them. That year we published a summary evaluation of "the state of state standards" across subjects.

As we noted at the time, the news was not good. Across all subjects, the national average was a pathetic "D-plus." While each discipline boasted some wondrous exceptions, most of the standards fell into common traps: they were vague, eschewed knowledge in favor of skills, focused too much on "relevance" instead of rigor, and overstepped the bounds separating standards (the results to be achieved) and curriculum (the means to achieving those ends).

Nor were we alone in reaching this glum conclusion. The American Federation of Teachers had also started reviewing standards and found most to lack the detail and clarity that would make them useful to classroom teachers. The (now defunct) Council for Basic Education came to much the same conclusion in its own examination.

We did another update in 2000, and found modest progress. The national average rose to a C-minus and, as

many more states completed and published standards, the numbers earning As or Bs rose across all subjects. More states seemed to be hearing the message that, to be useful, their standards had to be specific. And content didn't seem like such a dirty word any more. Still, the majority of states had mediocre standards or worse.

What's Happened Since

We supposed that states would respond constructively to criticisms of their standards, correct their shortcomings, and strive for excellence. We further supposed that the added stakes of the 2001 No Child Left Behind Act would cause state leaders to ask themselves, "are our standards up to the task at hand?"

Two-thirds of U.S.

children attend schools in states with mediocre standards or worse.

So we supposed. But we also honor the arms-control mantra: Trust but verify. Beginning in 2003 (and culminating this spring) we set out again to see whether such improvement had in fact occurred, whether state academic standards in the NCLB era are significantly better than in 2000. Whenever possible—which was not always—we used the same reviewers and the same or very similar criteria.

The modest good news is that most states have indeed *revised* or *replaced* their standards in many subjects. Thirty-seven states have updated at least one subject's standards since 2000, and 27 have revised all of their standards.

The much more significant bad news, however, is that taken as a whole, state academic standards are no better in 2006 than they were six years earlier. And far too many of them are completely unsatisfactory.

The average grade that states earned from Fordham's standards raters is still C-minus, the same as in 2000. And two-thirds of U.S. kids still attend school in states with academic standards in the C, D, and F range.

Yes, there's been much volatility. Some states—Indiana, New York, Georgia, New Mexico—significantly improved their grades. But plenty of others made their standards worse. The big backsliders include Utah, Nebraska, and New Hampshire.

Looking at individual subjects, our reviewers found math standards generally getting worse while English/language arts got better. (Science and U.S. history stayed about the same.) One hopes that the improvement in English has something to do with the National Reading Panel's report regarding early reading instruction plus NCLB's pressure on states to adopt "scientifically-based" programs—and extra Reading First dollars for those that do.

Only a select group of states do a good job across all four subjects. (Fordham did not evaluate geography standards again. We did, however, look at world history as well as U.S. history, and found that replacing geography with world history did not impact the overall grades significantly.)

But a great many states did a bad job across the spectrum. On the dishonor roll are 25 low-scoring states among which none received a single A in any subject and just five earned even one B grade.

Why trust our judgment? To be sure, the trend toward greater specificity in state standards—first spotted in 2000—has continued. As a result, the AFT, which has continued to review state standards, spots greater improvement than we do, since specificity is the value which that organization's reviewers seem to be most concerned. But the major distinction between the Fordham reviews and AFT reviews has always been around content: we examine whether states have identified a suitable body of knowledge and skills for students to master, and at the right level. Our criteria (available in each of the subject-specific reports on our website, www.edexcellence.net) make clear our values and priorities. For instance, science standards that don't tackle evolution or history standards without a chronology, don't make the grade by our reviewers' lights. Skeptical readers, then, should examine our criteria to determine whether they agree with our biases and judgment.

	2000 Average	2006 Average	2000 Honors (# of states)	2006 Honors (# of states)
English	C-	C+	19	20
Mathematics	C	D+	18	6
Science	C	C-	19	19
U.S. History	D+	D+	10	11
Geography	C-	N/A	15	N/A
World History	N/A	D+	N/A	12
All Subjects	C-	C-	9	9

—continued on page 12

State Grades in 2006 vs. 2000

STATE	CUM GPA 2006	CUM GPA 2000	2006 GRADE	2000 GRADE	2006 RANK	2000 RANK
California*	4.00	3.6	A	A-	1	1
Indiana*	4.00	2.4	A	C+	1	10
Massachusetts*	4.00	3.2	A	B-	1	8
New York	3.40	1.6	B+	C-	4	21
Georgia*	3.20	1.8	B+	C-	5	21
Virginia	3.20	2.4	B+	C+	5	10
Arizona*	3.00	3.4	B	B+	7	2
South Carolina*	2.80	3	B-	B	8	3
Alabama*	2.60	2.8	B-	B-	9	5
Minnesota*	2.20	1.6	C+	D-	10	39
Louisiana	2.00	2.6	C+	C+	11	14
Maryland*	2.00	2.2	C+	C+	11	10
Oklahoma	2.00	1.2	C+	C-	11	21
Illinois	1.80	1.6	C-	C-	14	26
Nevada*	1.80	2.2	C-	C+	14	14
New Jersey*	1.80	1.8	C-	D+	14	29
New Mexico	1.80	0.2	C-	F	14	47
Texas*	1.80	3	C-	B	14	3
West Virginia*	1.80	2.2	C-	C+	14	14
Colorado*	1.60	1.4	C-	D+	20	29
District of Columbia*	1.60	2.2	C-	B-	20	7
Kansas*	1.60	1.4	C-	-	20	N/A
North Carolina*	1.60	2.8	C-	B-	20	5
South Dakota*	1.60	2.6	C-	D-	20	8
Tennessee*	1.60	0.2	C-	F	20	47
Ohio	1.40	1.8	D+	C	26	20
Utah*	1.40	2.4	D+	C+	26	10
Rhode Island*	1.33	0.8	D+	D+	28	34
Delaware*	1.20	2.2	D+	C+	29	14
Mississippi*	1.20	1	D+	C-	29	21
Nebraska	1.20	2.4	D+	C+	29	14
Idaho*	1.00	0	D	-	32	N/A
Kentucky	1.00	0.6	D	D	32	38
North Dakota*	1.00	0	D	F	32	47
Oregon	1.00	1.8	D	D+	32	29
Pennsylvania*	1.00	0.8	D	D+	32	34
Vermont	1.00	1.2	D	D+	32	36
Maine*	0.80	1.2	D-	D+	38	36
Michigan	0.80	1	D-	D-	38	39
Missouri*	0.80	1.8	D-	D+	38	29
New Hampshire*	0.80	1.2	D-	C-	38	26
Arkansas*	0.60	0.4	D-	F	42	45
Connecticut*	0.60	1.4	D-	D+	42	29
Florida	0.60	1.8	D-	C-	42	21
Washington*	0.60	0.8	D-	D-	42	39
Wisconsin	0.60	1.6	D-	C-	42	26
Alaska*	0.40	0.6	F	D-	47	42
Hawaii*	0.40	0.6	F	D-	47	44
Montana*	0.20	0.4	F	D-	49	43
Wyoming*	0.00	0.4	F	F	50	45

*At least one set of subject standards has been revised or is currently under revision since review

The Problem with State Standards

What exactly do we mean by bad standards? Much the same as we meant six years earlier. Too many states still produce vague platitudes instead of clear expectations. Knowledge is still subordinated to skills. Trendy educational fads like “multiple intelligences” and “constructivism” still sneak into state documents. And kitchen-sinkism is alive and well, as states refuse to make choices and instead develop encyclopedic standards that no teacher could possibly cover in the course of a year.

The quality of a state’s standards matters hugely, much like the quality of an architect’s blueprint.

How and why does this happen? The interested reader might first turn to Joanne Jacobs’s splendid essay, beginning on page 19, explaining what led to outstanding standards in three high-flying states. Bad standards are very nearly good standards’ evil twin.

States fall short for four main reasons:

1. **Consensus Instead of Vision.** Many state standards bear the hallmark of having been “created by committee.” This leads to kitchen-sinkism as well as shoddy writing, convoluted organization, and educational confusion.
2. **The Absence of Real Expertise.** At the very least, university-level subject matter experts (mathematicians, historians, etc.) could help states minimize factual errors. A better strategy is to include such experts fully in the development of the standards themselves. After all, they understand their own disciplines better than anyone. (We’re not talking about professors of “math education.” We’re talking about real mathematicians.) Yet the ethos of many states has clearly been that only K-12 educators can develop K-12 standards. The results are not pretty.

3. **The Unfortunate Influence of 1990s-era National Standards.** The standards developed by professional associations such as the National Council of Teachers of English and the National Council of Teachers of Mathematics continue to create havoc, as states embrace their faulty fads and anti-knowledge orientation.
4. **Rampant Exceptionalism.** Alternatively, too many states continue to pretend that standards must be developed within their borders in order to be legitimate. As a result, they refuse to build on the excellent standards developed by pacesetter states such as California, Indiana, and Massachusetts.

Why Good Standards Matter

We’ve argued for a decade that solid standards are the foundation upon which modern education reform rests. They aren’t sufficient for success but they are necessary if a state wants to create strong incentives linked to test score results that are based on the standards. The three-legged stool of standards, tests, and accountability must be sturdy lest the entire enterprise tip over.

Good standards matter today even more than yesterday because the No Child Left Behind Act has placed a heavier burden on them and serious consequences now befall schools (and districts) that do not make suitable progress toward their states’ standards in reading and math. (Science will soon be tested, though it won’t count.)

It’s well known that solid standards alone do not produce increases in student achievement and that, even when all three legs of the tripod are sturdy, other factors come into play. Yet standards are the template by which many of those other factors get shaped—or should. Teacher preparation, credentialing, and in-service education, for example, should be keyed to the state’s academic expectations for its students. So should curriculum development and textbook selection. Indeed, to be legitimate the state’s own tests must be “aligned” with the standards they are supposed to track. (And the AFT recently found that even most test “specifications” are not aligned with the standards.)

It's also well known that good education can occur in places with lousy state standards—provided that a district, school, or teacher does it right. We do not claim and have never claimed that bad standards are always fatal or that good ones are foolproof.

Still, the quality of a state's standards matters hugely, much like the quality of a cook's recipe or an architect's blueprint. They describe the desired result. If the walls shown in a blueprint don't meet at the proper angle or the electrical wiring diagram is messed up, the builder will have a heckuva task to produce the sort of structure the client expects. So with statewide academic standards.

Do Good Standards Improve Student Achievement?

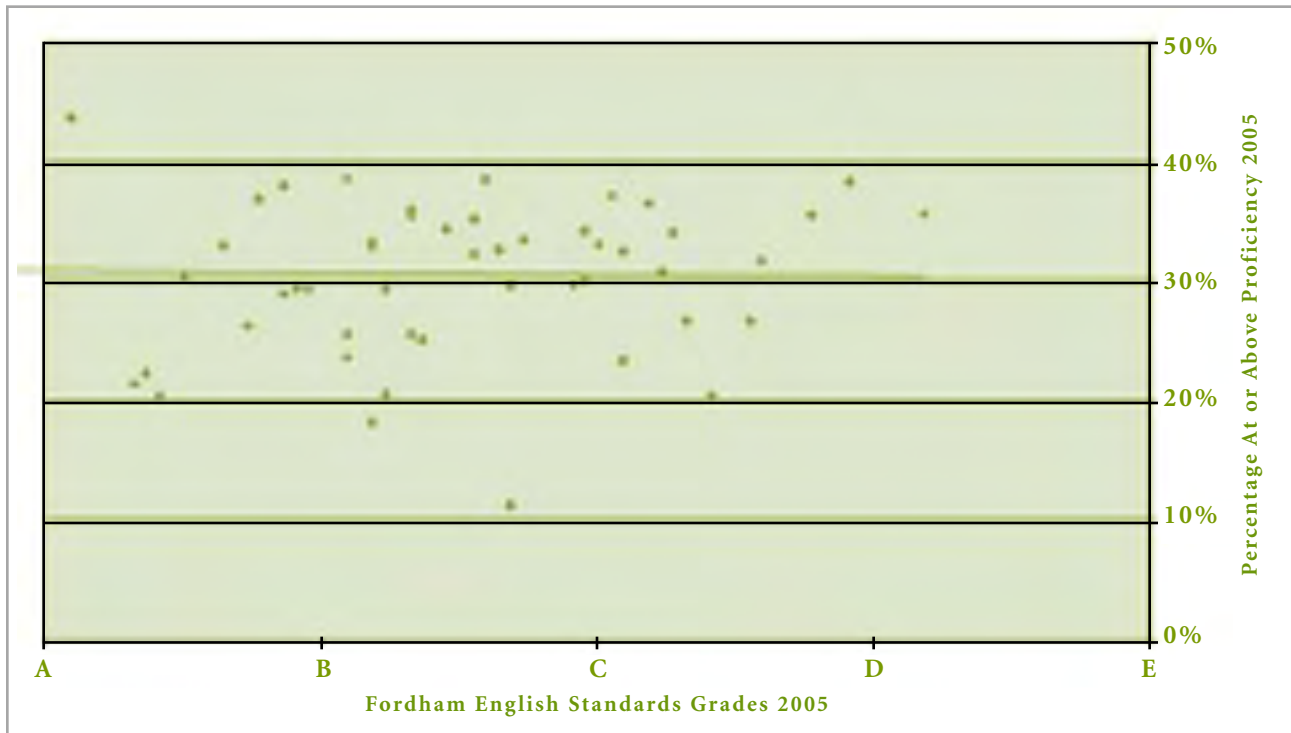
For almost 10 years, critics of our reviews have complained that our grades bear no relationship to states' per-

formance on the National Assessment of Educational Progress (NAEP). Therefore, some argue, strong state standards obviously don't matter when it comes to improving student achievement—and weak standards can go on unstrengthened.

This criticism is partly right. As is clear in the scatter plot below, there is no simple relationship between Fordham's grades on state academic standards (in this case for English/language arts) and the percentage of a state's students who are proficient in reading (in this case, fourth graders).

But this is no surprise. It's well known that state NAEP scores are tied most directly to the state's demographics. One could fairly say that the goal of standards-based reform in general, and NCLB in particular, is to *break* that link. Hence what matters is whether any reform, including the adoption of rigorous standards, leads to progress over time.

State Standards vs. At-Proficient percentages for 4th Grade Reading on NAEP



Viewed through that lens, the picture looks more promising. From 1998 to 2005, only seven states made statistically significant progress in the percentage of their students reaching proficiency in fourth-grade reading, and just six states made such progress for their poor or minority students. All of these states except for one received at least a “C” from Fordham for their English/Language Arts standards. That’s not iron-clad proof that good standards boost achievement, but it seems to indicate that really bad standards make it much less likely. Still, lots of states received a “C” or higher from us but did not make progress on NAEP. So having decent standards could be considered “necessary but not sufficient.”

There also seems to be a relationship between good science standards and improvement on the science NAEP. Five states made statistically significant gains between 2000 and 2005 at both the fourth- and eighth-grade levels: California, Hawaii, Kentucky, South Carolina, and Virginia. Three of these (California, Virginia, and South Carolina) have among the best sets of science standards in the nation. Kentucky has weak science standards but is among only a handful of states that holds its schools

accountable for achievement in science, which might explain its improvement. (We can’t explain Hawaii, with F-rated standards and no accountability for science.)

What about math? Here there is only a minor relationship between Fordham’s grades and state NAEP gains: four of the six states receiving “honors” grades from our reviewers made progress, either for the whole state or for poor or minority students, but so did many other states. In fact, 23 states made statistically significant gains between 2000 and 2005 in the percentage of their eighth-graders, or their low-income or minority eighth-graders, reaching the proficient level.

Why are good math standards not essential for improvement on the math NAEP? We have a suspicion: NAEP itself has been substantially aligned with the standards promulgated by the National Council for Teachers of Mathematics, as have most state math standards. As everyone rows in the same direction, NAEP scores rise. Unfortunately, according to our reviewers, that’s the wrong direction, one that moves America away from the kind of solid mathematics practiced around the world.

States Making Statistically Significant Gains on the 4th Grade Reading NAEP, 1998-2005

	Gains for All Students	Gains for Low Income Students	Gains for African American Students	Gain for Hispanic Students	Grade for English Language Arts Standards
Arkansas	X	X	X		C
California		X			A
Delaware	X	X	X	X	C
Florida	X	X			C
Hawaii	X				C
Massachusetts	X				A
New York		X	X	X	B
Utah	X				C
Virginia	X				B
Wyoming		X			F

States Making Statistically Significant Gains on both the 4th and 8th Grade Science NAEP, 2000-2005

	Grade for Science Standards	Does State Hold Schools Accountable for Science?
California	A	Yes
Hawaii	F	No
Kentucky	D	Yes
South Carolina	A	Yes
Virginia	A	Yes

Still, at least for reading and science, setting solid standards appears to give states a boost when it comes to improving performance on NAEP. Good standards matter, after all.

Is There Hope for State Standards?

Robust state standards trump faulty ones when it comes to setting a good foundation for systemic education reform. And yet, over the past six years, state standards on the whole remain problematic. It's not because the states have not been idle in this domain. As noted above, almost four-fifths of them have updated at least one subject's standards, in most cases without producing stronger documents. Waiting another six years for the states to get it right seems unlikely to change the outcome.

But what's the alternative? Even acknowledging its flaws, standards-based reform is still the most promising driver of educational improvement today. Just look at Massachusetts, the state that has most faithfully implemented this approach in the past decade—and one with some of the best standards in the country. Its NAEP scores have risen dramatically in practically every category, including for poor and minority students. Achievement gaps and big challenges remain, but most states would be thrilled to see the kind of progress the Bay State has enjoyed.

So we're left with a dilemma: the few jurisdictions that implement standards-based reform will see great results. Yet most states muck it up—and the situation hasn't improved in at least six years. Pushing and prodding states to get their act together hasn't worked. (Maybe Joanne

Performance of Fordham's "Honor Grade" States on 8th Grade Math NAEP, 2000 to 2005

	Gains for All Students	Gains for Low Income Students	Gains for African American Students	Gain for Hispanic Students	Grade for Math Standards
Alabama					B
California		X			A
Georgia		X	X		B
Indiana					A
Massachusetts	X	X			A
New Mexico		X			B

Jacobs' essay will inspire a few jurisdictions.) So what else? The only way to fundamentally solve this problem, as we see it, is to build on the success of states like Massachusetts and move to a system of national standards and tests.

*Fordham will push for
better state standards even as we fight
for great national standards.*

We understand that national standards would face the same perils as state standards. If written by committee, or turned over to K-12 interest groups, they could turn out to be vague, politically correct, encyclopedic, and/or fuzzy. If linked with real consequences for schools, they could be

pressured downward. They could even wind up doing more harm than good.

But if done right, they could finally put the entire country on the sturdy path of standards-based reform. And if great standards can be written in Sacramento or Indianapolis or Boston, perhaps they could be created in Washington, D.C.

Some people say that national standards and tests will never happen, that they will prove (yet again) to be politically impossible. Perhaps. But we've grown just as skeptical about the chances of state standards getting any better. So we'll hedge our bets: we'll push for better state standards even as we fight for great national standards. For the sake of the country, we hope that one of those strategies will finally come to fruition.

National Report Card 2006: State Standards Across all Subjects

(in rank order by cumulative GPA)

STATE	ENGLISH	MATH	SCIENCE	U.S. HISTORY	WORLD HISTORY	CUM.GPA	OVERALL GRADE	RANK	RANK (2000 RANK)
California	A	A	A	A	A	4.00	A	1	1 (1)
Indiana	A	A	A	A	A	4.00	A	1	1 (10)
Massachusetts	A	A	A	A	A	4.00	A	1	1 (8)
New York	B	C	A	A	A	3.40	B+	4	4 (21)
Georgia	B	B	B	B	A	3.20	B+	5	5 (21)
Virginia	B	C	A	B	A	3.20	B+	5	5 (10)
Arizona	B	C	B	A	B	3.00	B	7	7 (2)
South Carolina	B	D	A	C	A	2.80	B-	8	8 (3)
Alabama	A	B	F	A	C	2.60	B-	9	9 (5)
Minnesota	B	D	B	F	A	2.20	C+	10	10 (39)
Louisiana	A	C	B	D	F	2.00	C+	11	11 (14)
Maryland	C	C	B	C	D	2.00	C+	11	11 (10)
Oklahoma	C	C	F	B	B	2.00	C+	11	11 (21)
Illinois	B	C	B	F	D	1.80	C-	14	14 (26)
Nevada	B	C	D	C	D	1.80	C-	14	14 (14)
New Jersey	C	D	B	F	B	1.80	C-	14	14 (29)
New Mexico	D	B	A	F	D	1.80	C-	14	14 (47)
Texas	B	C	F	C	C	1.80	C-	14	14 (3)
West Virginia	C	C	B	F	C	1.80	C-	14	14 (14)
Colorado	C	D	B	D	D	1.60	C-	20	20 (29)
Delaware	C	F	C	B	D	1.60	C-	20	29 (14)
Kansas	C	F	F	B	B	1.60	C-	20	20 (14)
North Carolina	B	C	B	F	F	1.60	C-	20	20 (5)
South Dakota	B	C	D	D	D	1.60	C-	20	20 (8)
Tennessee	D	D	B	C	D	1.60	C-	20	20 (47)
Ohio	C	D	B	D	F	1.40	D+	26	26 (20)
Utah	C	D	C	C	F	1.40	D+	26	26 (10)
Rhode Island	C	F	C	*	*	1.33	D+	28	28 (34)
D.C.	C	D	C	F	D	1.20	D+	29	29 (7)
Mississippi	B	D	F	F	C	1.20	D+	29	29 (21)
Nebraska	C	D	F	C	D	1.20	D+	29	29 (14)
Idaho	B	D	F	D	F	1.00	D	32	32 (NA)
Kentucky	C	C	D	F	F	1.00	D	32	32 (38)
North Dakota	C	C	D	F	F	1.00	D	32	32 (47)
Oregon	B	D	F	D	F	1.00	D	32	32 (29)
Pennsylvania	C	D	C	F	F	1.00	D	32	32 (34)
Vermont	C	D	C	F	F	1.00	D	32	32 (36)
Michigan	D	C	D	F	F	0.80	D-	38	38 (39)
Maine	C	D	D	F	F	0.80	D-	38	38 (36)
Missouri	C	F	C	F	F	0.80	D-	38	38 (29)
New Hampshire	B	F	F	F	D	0.80	D-	38	38 (26)
Arkansas	C	F	D	F	F	0.60	D-	42	42 (45)
Connecticut	F	F	C	D	F	0.60	D-	42	42 (29)
Florida	C	F	F	D	F	0.60	D-	42	42 (21)
Washington	F	F	C	F	D	0.60	D-	42	42 (39)
Wisconsin	C	D	F	F	F	0.60	D-	42	42 (26)
Alaska	D	D	F	F	F	0.40	F	47	47 (42)
Hawaii	C	F	F	F	F	0.40	F	47	47 (44)
Montana	F	D	F	F	F	0.20	F	49	49 (43)
Wyoming	F	F	F	F	F	0.00	F	50	50 (45)
AVG. 2006	C+	D+	C-	D+	D+	1.59	C-	.	.
AVG. 2000	C-	C	C	D+	.	1.72	C-	.	.

National Report Card 2006: State Standards Across all Subjects *(in alphabetical order)*

STATE	ENGLISH	MATH	SCIENCE	U.S. HISTORY	WORLD HISTORY	CUM.GPA	OVERALL GRADE	RANK	RANK (2000 RANK)
Alabama	A	B	F	A	C	2.60	B-	9	9 (5)
Alaska	D	D	F	F	F	0.40	F	47	47 (42)
Arizona	B	C	B	A	B	3.00	B	7	7 (2)
Arkansas	C	F	D	F	F	0.60	D-	42	42 (45)
California	A	A	A	A	A	4.00	A	1	1 (1)
Colorado	C	D	B	D	D	1.60	C-	20	20 (29)
Connecticut	F	F	C	D	F	0.60	D-	42	42 (29)
D.C.	C	D	C	F	D	1.20	D+	29	29 (7)
Delaware	C	F	C	B	D	1.60	C-	20	29 (14)
Florida	C	F	F	D	F	0.60	D-	42	42 (21)
Georgia	B	B	B	B	A	3.20	B+	5	5 (21)
Hawaii	C	F	F	F	F	0.40	F	47	47 (44)
Idaho	B	D	F	D	F	1.00	D	32	32 (NA)
Illinois	B	C	B	F	D	1.80	C-	14	14 (26)
Indiana	A	A	A	A	A	4.00	A	1	1 (10)
Kansas	C	F	F	B	B	1.60	C-	20	20 (14)
Kentucky	C	C	D	F	F	1.00	D	32	32 (38)
Louisiana	A	C	B	D	F	2.00	C+	11	11 (14)
Maine	C	D	D	F	F	0.80	D-	38	38 (36)
Maryland	C	C	B	C	D	2.00	C+	11	11 (10)
Massachusetts	A	A	A	A	A	4.00	A	1	1 (8)
Michigan	D	C	D	F	F	0.80	D-	38	38 (39)
Minnesota	B	D	B	F	A	2.20	C+	10	10 (39)
Mississippi	B	D	F	F	C	1.20	D+	29	29 (21)
Missouri	C	F	C	F	F	0.80	D-	38	38 (29)
Montana	F	D	F	F	F	0.20	F	49	49 (43)
Nebraska	C	D	F	C	D	1.20	D+	29	29 (14)
Nevada	B	C	D	C	D	1.80	C-	14	14 (14)
New Hampshire	B	F	F	F	D	0.80	D-	38	38 (26)
New Jersey	C	D	B	F	B	1.80	C-	14	14 (29)
New Mexico	D	B	A	F	D	1.80	C-	14	14 (47)
New York	B	C	A	A	A	3.40	B+	4	4 (21)
North Carolina	B	C	B	F	F	1.60	C-	20	20 (5)
North Dakota	C	C	D	F	F	1.00	D	32	32 (47)
Ohio	C	D	B	D	F	1.40	D+	26	26 (20)
Oklahoma	C	C	F	B	B	2.00	C+	11	11 (21)
Oregon	B	D	F	D	F	1.00	D	32	32 (29)
Pennsylvania	C	D	C	F	F	1.00	D	32	32 (34)
Rhode Island	C	F	C	•	•	1.33	D+	28	28 (34)
South Carolina	B	D	A	C	A	2.80	B-	8	8 (3)
South Dakota	B	C	D	D	D	1.60	C-	20	20 (8)
Tennessee	D	D	B	C	D	1.60	C-	20	20 (47)
Texas	B	C	F	C	C	1.80	C-	14	14 (3)
Utah	C	D	C	C	F	1.40	D+	26	26 (10)
Vermont	C	D	C	F	F	1.00	D	32	32 (36)
Virginia	B	C	A	B	A	3.20	B+	5	5 (10)
Washington	F	F	C	F	D	0.60	D-	42	42 (39)
West Virginia	C	C	B	F	C	1.80	C-	14	14 (14)
Wisconsin	C	D	F	F	F	0.60	D-	42	42 (26)
Wyoming	F	F	F	F	F	0.00	F	50	50 (45)
AVG. 2006	C+	D+	C-	D+	D+	1.59	C-	•	•
AVG. 2000	C-	C	C	D+	•	1.72	C-	•	•

IT TAKES A VISION: HOW THREE STATES CREATED GREAT ACADEMIC STANDARDS

BY JOANNE JACOBS

Standards-based education reform involves many elements—testing, accountability systems, cut scores, to name but a few—but the success of each ultimately rests upon getting state academic standards right. So far, however, the states that have produced exemplary standards are greatly outnumbered by those whose standards are weak, nebulous, watered-down, content-free or otherwise unable to bear a real burden.

Perhaps a dozen states have good standards in one or two subjects, but just three states—California, Massachusetts, and Indiana—have consistently produced top-flight K-12 standards across the curriculum. The question is, How did they do it?

It's no secret what causes most jurisdictions to botch the job: overreliance on faulty national standards; the exclusion of real subject-matter experts from the standards-writing process; an obsession with vast committees and “stakeholder consensus.” But California, Massachusetts, and Indiana avoided these traps because they had visionary leaders—and bare-knuckled infighters with thick skins—who exploited unique political opportunities to fight for and pass top-flight standards. This is their story.

In Massachusetts, an equity lawsuit in the early 1990s forced the legislature to address school funding issues. Sensing an opportunity, reform-minded leaders, headed by businessman Jack Rennie, offered the education establishment a deal: more money in return for real reform. The massive funding increase for schools softened what would otherwise have been stiff opposition to standards-based reform.

In California, reform leaders such as Governor Pete Wilson and reading activist Marion Joseph got a boost in 1994 when their state received the lowest reading scores in the union on the National Assessment of Educational Progress (NAEP). That shock—weakened the influence of progressive educators who had dominated the Department of Education and paved the way

for Sacramento to institute statewide standards and testing to monitor what students were learning.

And Indiana, which had lost thousands of high-paying, low-skill factory jobs, was also shaken by national reports criticizing its schools. Leaders such as higher education commissioner Stan Jones turned to out-of-state experts to help turn things around.

*Visionary leaders
exploited unique political opportunities
to pass top-flight standards.*

To be sure, these visionaries and fighters had lots of help. In each state, the governor and key legislators worked across party lines to make first-class standards a reality. The state boards of education took a strong leadership role in Massachusetts and California, and the governor's Education Roundtable did much the same in Indiana.

Teacher unions in all three states chose not to oppose rigorous standards, in part because they realized that more funding for schools hinged on reform. Eventually, many union leaders came to believe that clear standards would help teachers understand what they were expected to do.

Urban superintendents also climbed aboard the standards' train. Some believed that higher standards would lead to more money; others were simply sick of the cloudy, mediocre status quo. Like teachers, they wanted clarity.

As progressives in state education departments were outmaneuvered (or beaten to a pulp) by more traditional education thinkers, reformers also brought in reading researchers, math professors, Nobel Laureates, and consultants with benchmarking expertise. Each of these states tried to learn from others—and from high-scoring Asian and European nations. Nobody in these states tried to learn from education school professors.

Pockets of resistance can still be found in these states in affluent suburban districts and university education departments, where progressives maintain bastions. But, for the most part, “major combat” has ended in the standards battle even as fighting rages over testing and accountability.

In Massachusetts, the MCAS (Massachusetts Comprehensive Assessment System) is under constant attack. Students in the class of 2006 had to pass the tenth grade MCAS to earn a high school diploma. “Half of teachers believe there should be no graduation requirement,” says Kathleen Kelley, who headed the Massachusetts Federation of Teachers until June 2006.

*“Major combat” has ended
in the standards battle, even as
fighting rages over testing and accountability.*

“The rest say the test shouldn’t be the only measure.”

Indiana’s testing system is markedly weaker than its standards and new fights have broken out over “cut scores”—how good is good enough to pass?—and whether students should be testing at the beginning of the school year (current practice) or at the end. The union is pushing to keep testing in the autumn.

California took three years to back up its standards with a standards-linked test and even longer to complete the transition to a standards-based accountability system.

Bilingual teachers and their political allies have recently fought to exempt English language learners from testing and to create a simplified, standards-lite K-8 curriculum for students from non-English-speaking families. As of August 2006, Governor Arnold Schwarzenegger, an immigrant who learned English through immersion, was backing the state board of education’s insistence that all students be taught to the same standards. Two former governors—Pete Wilson and Gray Davis—joined hands across party lines to back those standards.

Creating standards is only a first step on the long road to reform—but it’s also a critical step, one that can take

years to achieve. Visionary leaders who can adroitly mix conviction with conversion, friendship and politics are critical to making high-quality standards a reality.

California: A Shock to the System

California was a national leader in progressive education until the 1994 National Assessment of Education Progress (NAEP) scores showed the state mired at the bottom nationally in fourth-grade reading—tied with Louisiana and scoring below Mississippi. On the whole, California fourth-graders were more than a year behind in reading.

“Abysmal,” says Michael Kirst, a Stanford education professor who had served on the state board of education in the 1970s.

“Humiliating,” says Marian Bergeson, a former teacher turned Republican legislator who later became Governor Pete Wilson’s education secretary.

It wasn’t the first jolt to California’s progressive education leaders, but it proved to be the most fatal. In 1992, the state’s students had also done poorly on the NAEP exam. Apologists and cynics blamed the “M & Ms”—too many Mexicans, and too little money—and not much more was said. But the 1994 scores couldn’t be passed over as easily. They made clear that the full range of California’s students was falling behind the rest of the nation: One NAEP chart showed half the children of California’s college graduates reading below the “basic” level.

“That single chart started all this,” says Jerry Treadway, a professor of education at San Diego State University.

The NAEP earthquake had set the reform pendulum swinging with a bipartisan consensus that the progressives had led the state to academic ruin. Leading the charge was Governor Pete Wilson. He was not, however, blazing a wholly new trail.

Reform’s False Start

California’s standards story starts in 1983, the year *A Nation at Risk* was published and the dynamic Louis “Bill” Honig Jr. took over as the state’s elected superin-

tendent of public instruction and head of the department of education. In his dark-horse campaign against Wilson Riles, who had served in that post for the previous 12 years, Honig called for raising standards and graduation requirements and for teaching “a core of knowledge in the arts and sciences.”

It was a bold move. Prior to Honig’s arrival, most California education dollars came from local property taxes, so the state had little say over how they were spent and minimal power to set standards. The decision by voters in 1978 to pass Proposition 13, which shifted education funding from local districts to the state, changed all that. And Honig, who wanted to craft new statewide standards calling for students to read literature, study classic civilizations, and develop mathematical and scientific understanding, saw his opportunity.

But having the will did not give him the capacity to overcome the progressivists who controlled the state education department and the writing of curriculum frameworks. These were people who believed that the teacher should be “a guide on the side,” facilitating children’s natural learning, not a “sage on the stage” teaching skills or knowledge.

“The frameworks were, mostly, here’s how you teach, which wasn’t that helpful,” recalls Glen Thomas, who was staff director of the curriculum commission and then deputy director of the Academic Standards Commission. “Quality was uneven. The ones we did later tended to be better because we learned as we went along. History was pretty good,” he remembers, because leaders such as Diane Ravitch and Charlotte Crabtree, who stressed content over teaching methods, were involved. “But math was weak. We had kids going all the way through school and never doing algebra. They could just take general math.”

The reading frameworks were especially “crappy,” says Sue Burr. An education consultant in the legislature at the time who worked with state Senator Gary Hart—a Democrat who chaired the state Senate Education Committee and left the legislature in 1994 to open the Institute for Education Reform at Sacramento State University—Burr later served as Governor Gray Davis’s education secretary. Whole language enthusiasts, she says, wrote a visionary reading framework in 1987 that was heavy on literature and the joy of learning, very light on phonics, spelling, and direct instruction.

BILL HONIG



Elected superintendent of public instruction in 1983, he led an early effort to write education standards for all California schools and became an advocate for statewide testing of students. Without it, he believed, there would be no way to measure if the standards were elevating student performance.

[Without a state test], we were flying blind. That’s why NAEP was such a shock in 1994.

The math framework didn’t come until 1992, and predictably, it embraced the “new new math” ideas promulgated by the National Council of Teachers of Mathematics, which stressed students working in groups, solving real-world problems, and developing their own strategies instead of applying traditional algorithms. Computation drills were out, feeling good was in. Students would feel “mathematically empowered,” the framework promised.

But how would anyone know if the state’s newly “empowered” students were any better at math? California had no state test. In 1990, Governor George Deukmejian vetoed funding for the California Assessment Program (CAP) multiple-choice test, complaining that it didn’t produce individual scores.

Honig says he realized students were foundering, but couldn't muster the political support necessary to launch a statewide test. "It could have been corrected so easily, if we'd had a state test, but we were flying blind," Honig says. "That's why NAEP was such a shock in 1994."

Honig also tried to bring back skills instruction but made little headway. Then he was distracted by charges involving education department contracts for his wife's nonprofit foundation. Convicted of conflict-of-interest charges, he resigned at the start of 1993.

CEO Sam Ginn, who complained that high school grads couldn't pass a simple arithmetic test, moved Wilson to action.

Demoralized by Honig's fall, the education department was managed for the next two years by an interim superintendent named Dave Dawson, a long-time civil servant who tried not to make waves. Inside the education department and the colleges of education, progressivism reigned supreme. But outside, even before Honig's fall, the traditionalists were gathering their forces.

Rallying Traditionalist Troops

If Honig couldn't break the back of failed progressive policies in California, others were willing to try. A remarkable array of citizens began a grassroots struggle for improved reading and math instruction.

Their spiritual leader and inspiration turned out to be Marion Joseph, a retired former aide to Riles, who spearheaded the revolt against whole-language reading in California. When she discovered that her grandson wasn't learning to read naturally, as whole-language theorists had promised, Joseph dived into the reading research literature, learned where the whole-language advocates were wrong, and became a shrewd and relentless lobbyist for the return of direct, systematic teaching of phonics.

Richard Lee Colvin, writing in *The Los Angeles Times* in 1995, described her as an "unpaid lobbyist" who "relies on 'moles,' as she calls them, to tip her off to proposed policies so she can press for language that suits her purpose."

Her success is demonstrated by the "conversion" of Bill Honig to her cause. After leaving office in 1993, he became the leader of the Consortium on Reading Excellence (CORE) in 1995 as a born-again phonics man.

Joseph went to work on key legislators, persuading them that reading instruction was failing California students. "I carted research studies to legislators and the governor's office," Joseph says. "I couldn't be accused of being a right-wing nut, because I was a left-wing nut."

On the math front, parent groups were forming to fight for traditional instruction—algorithms and all. Honest Open Logical Debate (HOLD) started in Palo Alto in 1995 as a group uniting mathematicians, computer scientists, engineers, and lower-tech parents concerned about "fuzzy" math textbooks—or no books at all. Mathematically Correct, a website started by San Diego scientists, spread word of the parents' revolt across the state and eventually the country.

The Internet was critical, says Ze'ev Wurman, a Palo Alto computer scientist and HOLD member who later was named to the committee that rewrote the math framework. High-tech parents, early e-mail adopters, "could easily exchange information, cull supporting articles from regional and national press, and rally people to meetings."

Sam Ginn, then the chair of the California Business Roundtable and CEO of Pacific Telesis, shared his concerns about math education directly with Governor Pete Wilson. "A few weeks after I took office as governor" in 1991, Wilson says, "I had a call from Sam Ginn, saying, 'We give tests for entry-level jobs to high school graduates. The exam is pegged at the seventh grade level—the math is just arithmetic, fractions and percentages and it's the equivalent for reading comprehension and writing. Two-thirds of high school graduates flunk the exam. If they're close enough, we'll do remedial instruction, but we really think it's not our job to be teaching reading and math to high school graduates.' He thought that was our job."

One response to that complaint was the creation in 1991 of a Cabinet-level position, secretary of child development and education, to rival the elected superintendent of public instruction. Wilson named Maureen

DiMarco, former president of the California School Boards Association, who is best remembered for describing new-new math as “fuzzy crap.”

Rise of the State Board of Education

The California state board of education, a relatively quiet group under Riles, rebelled against Honig in 1991. It sued Honig, claiming the board, not the secretary of public instruction, had the constitutional power to set education policy. It won its case in 1993.

“The appeals court ruled that the board of education was a policymaking body and the department of education was the arms and legs of the board,” says Bill Lucia, who was executive director of the board at the time.

Wilson, as evidenced by his appointment of DiMarco, was friendly with the reform-minded board. Yvonne Larsen, president of the board in 1993, had served as vice-chair of the Nation at Risk panel and was a good friend of Wilson. They got to know one another in the '70s and early '80s, when Wilson was mayor of San Diego and she sat on the local school board.

Wilson wasted no time appointing assertive board members who were unwilling to take the department's lead. “I appointed Tim Draper to the board,” Wilson says. “I told Tim, ‘You don't have a snowball's chance in hell of being confirmed, but you'll have a year on the board to make your case.’ Janet Nicholas had guts and honesty and I knew she would hang in there. We had awfully good people who we knew would hang in.”

“Wilson got serious about K-12 and took the board seriously,” says Suzanne Tacheny, who directed California Business for Educational Excellence. “He died on his sword over some appointments. He was willing to fight.”

The shift in power from the superintendent to the board didn't just happen, says Wilson. “It was by conscious design.”

Wilson wasted little time in stripping the department of its power. As mentioned, there was no statewide test before 1993 but the department's progressives were at work developing the new-fangled California Learning Assessment System (CLAS), which asked students to write about their feelings and draw pictures in response to reading passages.

Parents on the religious right railed against the exam after it was administered in 1993, complaining that questions about students' personal beliefs and experiences were an invasion of privacy. The department stonewalled its critics, dismissing them as right-wing extremists. But the criticisms leveled by statisticians hired to analyze the assessment for its technical soundness could not be so easily ignored. Their report in 1994 revealed numerous problems in producing valid scores. Moreover, CLAS couldn't provide individual student scores, a top priority for Wilson, who wanted to empower parents.

Pete Wilson died on his sword over appointments to the state board of education. He was willing to fight.

These two shortcomings gave Wilson all he needed in 1994 to veto funding for CLAS.

That debacle—the word everyone uses to describe it—did more than weaken the department politically. It clued in state officials, who had previously relied on the department of education's so-called professional expertise and ability to objectively determine what constituted best practice, that these “experts” were in fact part of the problem.

The department was further damaged in 1995 when Delaine Eastin took office as superintendent of public instruction. Eastin tried to restore balance to the department, moving some true believers to other jobs. “The progressives in the department didn't like Delaine at all,” Stanford's Michael Kirst recalls.

But neither did the governor. “Pete Wilson hated Delaine,” says Kirst. “She'd made very personal attacks on Wilson when she was in the legislature and he never forgave her.”

Wilson slashed the education department's budget by 25 percent, further weakening Eastin's power.

And when Eastin thought things could get no worse, they did. With no friends among the progressives inside the education department, no support from the governor's office, and no public support in the wake of the CLAS debacle, she faced the public outcry over the 1994 NAEP results, released to the public in 1995.

Yet in the face of such adversity, she scored a success, launching both the Reading Task Force and the Math Task Force to look into the state's low performance. The Reading Task Force talked with reading researchers and called for "balanced" instruction combining phonics and comprehensive strategies. Joseph was a task-force member and lobbied successfully to include systematic and explicit teaching of phonics. The battles fought here would prove helpful when Wilson launched a commission to write new standards for the state in 1995.

The CTA had no interest in defending progressive education, and the CFT was pro-phonics.

The Math Task Force was somewhat less successful. It, too, called for balance in instruction, but what was meant by balance was never decided. Not surprisingly, when the math standards were written several years later, the process erupted into an all-out war.

Meanwhile, the legislature was waiting for no one. Liberal Democrats allied with conservative Republicans to pass the ABC bills in 1995, which required the state board of education to ensure that instructional materials in math and reading teach "systematic, explicit phonics, spelling and basic computational skills."

In a July 6, 1995, *San Francisco Chronicle* story, assemblyman John Burton explained why his bill required schools to teach spelling. "You cannot run until you walk. You cannot walk until you crawl," said Burton, an influential Democrat. "And what has happened in public education is we're trying to teach people how to run and jump, and nobody taught them either how to crawl or how to walk."

The ABC Bills passed the assembly without a single "no" vote. The bipartisan consensus was a tribute to Marion Joseph's aggressive lobbying and the progressives' lack of clout. The California Teachers Association had no interest in defending progressive education while the California Federation of Teachers was pro-phonics.

Eastin admitted that her department had made an "honest mistake" in neglecting basic skills.

"All the players agreed K-12 was a real mess," says Nicholas, who was a Wilson appointee to the state school board. "It wasn't making anybody happy. A key moment for me was when I was driving to Sacramento and heard on the radio that John Burton—a very liberal Democrat—had passed the ABC bill saying kids should be taught to spell. I started laughing. It was like passing a bill saying people should walk."

Republicans held a slim majority in the assembly. Steve Baldwin, "the most extreme right-wing Christian legislator we've ever had," says liberal Democrat Joseph, chaired the education committee. "I told Baldwin we had to stick to reading—no school prayer. We had to stay in the box."

"Without Baldwin, this wouldn't have happened," says Treadway. "CTA controls the agenda when the Democrats are in power. The Republicans are more likely to let a public voice in. Delaine thought because she'd been chair of the education committee she could walk over there and tell them what to do. By the time she got there, Marion had it sewn up."

"Everyone was in favor of excellence by then," says Hart. "It reminded me of crime. 'I can be tougher on crime than you.' Everyone was talking tough on education."

"The stars aligned," says Kirst. "Pete Wilson had the governor's power. The legislature was moving to the right; the Republicans gained control by one vote of one house. Honig was gone. There'd been an interim superintendent for two years, then Delaine Eastin, who didn't build any coalitions. The department of ed was beaten down."

The unions kept quiet. "This wasn't a bread and butter issue for them," says Kirst. "In terms of progressive vs. traditional, they probably had members split six ways to Sunday."

A Consensus for New Standards

By the end of 1995, Wilson, Eastin, and the legislators agreed: A new 21-member standards commission dominated by gubernatorial appointees would write rigorous, world-class, unfuzzy standards that would be used to create a new state test—one that didn't ask students about their feelings. The law required a majority of commission members to be parents with children in public school.

Victory has a thousand fathers, it's said, while defeat is an orphan. It's a sign of the success of California's standards that everyone now claims to have backed them from the beginning.

But there's general agreement that unions, education groups, and the business community went along rather than leading the charge.

The CTA wielded enormous power, Wilson says, but the CTA and the smaller California Federation of Teachers "chose not to fight standards."

"The unions were skeptical about standards at first," says Bergeson, who in 1996 replaced DiMarco as the governor's education secretary. "They worried this would be tough for teachers to absorb. Their concern was that there's never enough money for staff development. They came to support standards because it let them understand what to expect."

Joe Nunez, then a CTA lobbyist and now its assistant executive director and a state board of education member, agrees with Bergeson's analysis. "The CTA participated as one of many groups," says Nunez. "Initially, there was a hue and cry about teachers having to do the same thing in the same way on the same day." Teacher empowerment was a CTA priority. However, union leaders decided that clear standards aligned to a well-written test would help teachers do their jobs. "We think that if you set expectations and let teachers do what they need to do to meet those, that's empowering."

Like the unions, the professional associations representing school board members, administrators and non-teaching staff were "non-players," says Scott Hill, who headed the school boards' association and became the second director of the standards commission. "I used to complain to the various associations: You think public education revolves around money. You don't under-

PETE WILSON



As governor of California, Wilson oversaw the transfer of power in the state's education realm from the Education Department to the State Board of Education, the body that finally made high standards a reality in the Golden State.

[The shift in power] was by conscious design.

stand standards and testing is going to change your life. This is going to put a spotlight on your school."

The California Business Roundtable argued that good schools were critical to California's economic health. But they didn't get into specifics of how to improve schools.

"Business was not pushing an ideology," says Thomas. "They wanted clarity, specificity, and rigor" in the standards.

In 1997, with all the players in tow, Wilson pushed through the STAR (Standardized Testing and Reporting) system. It

took effect in 1998, using a nationally normalized off-the-shelf test that produced individual scores. Wilson was adamant that parents couldn't wait any longer. In 2001, questions based on the newly crafted state standards were added.

“People writing standards need to know their work will go out for review.”

Writing the Standards

In 1996, the standards commission went to work. The governor, the superintendent and the legislature appointed former teachers, school administrators, academics, business leaders, and a home-schooling mother—but no current classroom teachers. Later, as vacancies opened up, some active teachers were named to the commission.

Ellen Wright, an education grant writer who'd served on previous commissions, was chosen as the chairwoman. Ellen Moratti was the executive director in charge of the commission staff, replaced by Scott Hill in 1997.

The commission's first job was to hire consultants with standards-writing experience. StandardsWork, a Washington-based organization that stressed the need for clear, measurable, grade-by-grade standards, got the job. Consultants Susan Pimentel and Leslye Arsht used existing standards and frameworks as models: Virginia's Standards of Learning and the local standards employed by Charlotte-Mecklenburg, North Carolina were influential, but commissioners also looked at California models, such as the Education Roundtable standards, as well as work done in Arizona, Colorado, Delaware, New York, Massachusetts, Texas, Washington, Chicago, Hungary, Japan, and Singapore. They also considered Core Knowledge, the International Baccalaureate Program, the New Standards Project (a joint effort of the National Center on Education and the Economy in Washington, D.C., and the Learning Research and Development Center at the University of Pittsburgh), and TIMSS.

Commissioners invited researchers to testify, though, as E.D. Hirsch Jr. pointed out in his testimony, evaluating the reliability of research was a challenge:

The enormous problem to be faced in basing policy on research is that it is almost impossible to make educational policy that is not based on research. Almost every practice that has ever been pursued in education has been supported with data by somebody. I don't know of a single failed educational policy, ranging from the naturalistic teaching of reading, to the open classroom, to the teaching of abstract set theory in third-grade math that has not been research-based. Experts have advocated almost every known educational practice short of inflicting permanent bodily harm.

Each commission member served either on the English language arts or math subcommittee; once these were done, the commissioners went on to history/social studies and science.

“It helped that our meetings were public,” says Pimentel, who took charge of English and history. “Many teachers came, and we often turned to them as we were struggling with what level of detail to include. We asked them to be a check on us.”

Commissioners often asked the audience to participate. Pimentel remembers, “Trying to do all this in public was daunting, but I really felt the atmosphere was that we wanted to get it right. There was a sense of openness.”

“What was good about California's process,” she continues, “was the many layers of review.” The draft standards were sent all over the state and the country for review. “People writing standards need to know their work will go out for review by colleagues in the field and to experts around the country. It's not just the say-so of the 10 or 20 people in the room.”

“We set a process and stuck with it,” says Thomas, the commission's then deputy director. “All papers were made public. There were times for public comment. I think people thought the process was fair.”

Reading: Civility, Not a Civil War

To everyone's surprise, reading wasn't a fight. The battle had already been won.

“English language arts was fairly peaceful because it was preceded by the Reading Task Force, which came out with *Every Child a Reader*,” says Jerry Treadway. A member both of the task force and the commission and an Education professor at San Diego State University, Treadway had converted from whole language to phonics when his student-teachers said their students couldn’t read. “The task force is where the blood was spilled. Marion Joseph fought to the last minute to get ‘phonics’ in the report and she won. When we started on the standards, Delaine came in and said, ‘We’ve fought this battle. It’s over. Leave it alone.’”

Alice Petrossian, a deputy superintendent from southern California, was a “terrific chair” of the subcommittee, says Sheila Byrd, a commission staffer who helped write the English and social studies standards. “Alice was very inclusive. Everybody felt listened to. Some folks from the audience became almost like part of the subcommittee.”

“In reading, we made it clear up front that phonics and phonemic awareness would be important in the early grades,” Pimentel says.

Researchers flew in to testify about reading research, including Marilyn Adams and Louisa Moats, both leading researchers in reading instruction.

“Every standards document claims to be ‘research based,’ often with no explanation of what research it’s talking about,” Pimentel says. In reading, “bringing in researchers helped achieve consensus” in California.

“The base of reading research was so overwhelming,” Burr says. “We relied on the NIH (National Institutes of Health) research. At the ed schools, the sheep were still going to whole language,” but teachers came to see the value of phonics-based, systematic reading instruction. “There was a lot of consensus.”

The greatest resistance in reading came from kindergarten teachers who didn’t want to see kids pushed at all at that tender age, recalls Treadway. “The teachers complained, but within a year they told us we could have made the standards more rigorous.”

The commissioners emphasized reading in grades K-3, and writing in grades 4-8. There were some complaints that the high school standards were too hard, Treadway

says. “People said students would need a master’s degree to pass.” But the commissioners, checking their work against Virginia and Charlotte-Mecklenburg, forged ahead.

Joseph, named to the state board of education by Wilson in 1997, was asked by the board to monitor English language arts along with Kathryn Dronenburg, an elementary teacher and a staunch phonics advocate. These two approved of the commission’s work.

*“We did a lot of stressing *e pluribus unum* rather than multiculturalism.”*

History and Social Studies: The Great Peace

Remarkably, history/social studies was also tranquil—at least within the commission.

The commissioners liked the extant history framework, written by Diane Ravitch and others when Honig was in office, and agreed to use it as a foundation.

“In history/social studies, people wanted their culture represented and the wording to be correct, but there weren’t rival camps,” says Pimentel. “Early on we got long, very scholarly, often very angry, responses about the wording of specific items, often questioning our motives. We tried to look at the content of what they were saying to see what had merit.”

“When we got to world history,” she continued, “we decided it was important to look at the eastern hemisphere, but it also was very important for students to know where our system of government came from. We were able to pull in other events not just from Europe but we made a determination not to stick in everything. It’s still very comprehensive and maybe there’s too much to teach.”

With the history framework as a guide, the subcommittee tried to resist pressure to mention every student’s ethnic heritage.

“We did a lot of stressing *e pluribus unum* rather than multiculturalism,” recalls attorney Lawrence Siskind, who chaired the committee. “The standards were sort of anti-multicultural.”

Still, when the commission held hearings to talk to teachers, they heard complaints that the standards asked too much, Siskind recalls. “We were getting more excuses than constructive comments. Teachers as a group were intimidated by standards. They felt they were too high, that it wasn’t practical.”

Byrd still worries about sixth and seventh grade, which are “chock full of history, geography and economics, even some social history. It’s a lot.”

The ideological fight everyone expected over reading and history erupted over math and science instead.

The subcommittee members did their best to find a teachable balance, and finished without igniting a history war.

However, California made no provision for updating the standards, Hart points out. “Tenth grade world history is oriented to Europe. We have the Glorious Revolution, the French Revolution, very little post World War II, and nothing on terrorism, not much on Islam.”

“I’m afraid to reopen the standards,” Thomas says. “They could be turned into a laundry list or watered down or factionalized.”

For this reason, the state board of education resisted pressure in 2006 from Hindu nationalists who wanted to rewrite textbooks to change the Aryan “invasion” of the subcontinent to an “incursion,” and to change the “caste system” to a “class system.”

The subcommittee “was a very harmonious group,” says Siskind, who served as the chair. “We had disagreements but were determined to keep discussion at a polite level. I kept telling myself, ‘This is not litigation. This is politics. I have to be nice.’ On reflection, I think we were all glad we weren’t in math or science.”

Math Attack

The ideological fight everyone had expected over reading and history erupted over math and science instead.

“Math was a war from the get-go,” says Hill.

Unlike reading, where the task force set up by Eastin sorted out the differences between the progressives and the traditionalists, the Math Task Force had failed to negotiate common ground between supporters of NCTM’s progressive standards and the math traditionalists.

The NCTM standards were multi-grade and sometimes vague, Pimentel says. “California decided to go grade specific and detailed. Plus there was the push to make sure students had basic skills under their belts, that algebra needs to be traditional algebra, that geometry has to have proofs in it. People thought NCTM was under attack.”

The commission’s firebrand was Bill Evers, a HOLD member appointed by the governor and a Research Fellow at Stanford’s Hoover Institution. Evers is a political scientist but had developed a “math brain trust” that advised him, including math professors at Stanford, Berkeley, Oregon, and the California State University system, and HOLD members with backgrounds in statistics and biomedical research.

Evers believed strongly that children need to be taught math fundamentals before they can build conceptual understanding. He also opposed the use of calculators in elementary school.

Judy Coddling, a former high school principal and vice president of the National Center on Education and the Economy, became the leader of the commissioners who supported NCTM standards.

“On the math committee, we carefully examined what they were doing in Asian countries, the Czech Republic,” Coddling says. “Our concern was once you’ve acquired math skills and knowledge, how do you use that knowledge? In our country, conceptual understanding is left out of the mix. It shouldn’t be either/or. You can’t apply something you don’t have.”

Evers and Coddling believed they were advocating a balanced curriculum that would include both basic skills and higher-level thinking. They wanted benchmarks tied to international standards. If kids can do it in Singapore and Japan, why not in the U.S.? But they had different ideas about how to get to “world-class.”

The business community wasn’t a great deal of help, recalls Hill. They wanted higher standards, but what

would those look like? Evers, he continues, “had the specifics. He had a bank of advisors—mathematicians—that became an ad hoc committee that worked with the state board when they rewrote the standards.”

Evers’ persona carried the day at the beginning, but by the end the commission sided with Coddling, who had the votes needed to pass a progressive agenda.

With Evers as the sole “no” vote, the commission eventually approved a set of NCTM-inspired math standards that Coddling believed “could have been the best in the country.”

But Evers didn’t give up. A canny political scientist, he looked at where the power lay: The standards commission could recommend standards, but the state board of education had the final say. “When I noticed severe problems, I’d go to people in the governor’s office. But they had plenty on their plates. So I went to members of the state board. Did they want to defend math standards with no long division?”

Evers tried to bargain with the commissioners, threatening to write a minority report unless they amended the standards. “The staff went apoplectic. They really didn’t want a minority report. I had a complete alternative set of standards. It got very bitter. I think I got no votes other than my own. But I put my standards on the web and handed them out. I wrote in the *New York Times* and *Mercury News* about my views.”

Evers knew he’d angered the commissioners by going directly to the state board. But he didn’t care.

The board agreed that the commission’s standards were too fuzzy. “Teaching long division was seen as moral turpitude,” says Nicholas, who was friendly to Evers’s position. “Memorizing the multiplication tables was a really horrible thing to do to young minds.”

The state board asked Nicholas and fellow board member Robert Trigg to “fix” the commission’s standards. “I can remember making the most outlandish phone calls to people,” says Nicholas. “I called a very well-known mathematician at Princeton and asked for his help. He asked me what the compensation was. I basically said, ‘Love and kisses.’ We had no budget. We had minimal staff.”

A team led by Stanford math professors rewrote the commission’s standards, reordering them to make sure basic skills came before advanced skills, eliminating ambiguity, and fixing more than 100 errors in the original document.

“They stripped it of discovery learning, and they paid attention to the content and curriculum controversies,” Evers said. “They didn’t use my alternate standards, but I think the standards they did are very good.”

When progressives won the first round, Bill Evers bypassed his committee and went directly to the state school board.

Other than banning calculators in elementary school, the board’s standards didn’t dictate how to teach. For example, schools had the option of teaching “integrated mathematics” rather than the traditional algebra, geometry, or advanced algebra/trig sequence. Students could learn through drill or through discovery, as long as they learned.

In a letter of protest to the board, NCTM President Gail Burrill wrote: “Today’s children cannot be prepared for tomorrow’s increasingly technological world with yesterday’s content ... The vision of important school mathematics should not be one that bears no relation to reality, ignores technology, focuses on a limited set of procedures.”

But the progressive tide was turning. A few years later, the NCTM standards were revised to include more emphasis on foundational skills.

Science Stand-Off

After math, the subcommittee turned to science. Once again, Evers said he would go to the state board of education if he didn’t get the standards he wanted from the commission. Again, the board was on his side.

“Looking at what had happened with math, we knew science would be a huge battle,” says Hill. And the battle began with a struggle over which consultant to hire to advise and help write the standards.

Two teams applied for job: One, led by Bonnie Brunkhorst, a California State University-San Bernardino science education and geology professor, strongly supported national standards written by the National Science Foundation and the American Association for the Advancement of Science (AAAS).

Stan Metzenberg, a California State University at Northridge biology professor, assembled a rival team that included three Nobel Laureates, including Glenn Seaborg, former U.C. Berkeley chancellor, head of the Atomic Energy Commission, and chair of the Nation at Risk panel.

The science commission's standards stuck to one verb, "to know."

Metzenberg's team volunteered to work without pay; Brunkhorst asked for \$178,000. The commission's scoring system used cost as the denominator, which should have guaranteed a Metzenberg victory. Instead, however, the Brunkhorst team was chosen on grounds that its members had more experience writing standards. When Metzenberg complained, Hill conceded the rules hadn't been followed. While the commission revamped the scoring system and repeated the process, Metzenberg recruited more Nobel Laureates and Brunkhorst recruited a few of her own. A battle of the Nobels was raging.

"I could see this was going to get really ugly really fast," Hill says. "I talked to Ellen Wright and Bill Evers and said, 'I think we should force both groups to work together. We can find that neither meets the sufficiency hurdle.' I did this knowing my life would be hell working with these people and it was a miserable experience, just wretched. Our job was to force them to talk to each other."

When Larry Stupski, a Charles Schwab vice president, resigned from the commission, his seat had to be filled. Wilson appointed Seaborg and made him chair of the science subcommittee. Roland Otto, a nuclear physicist who'd been a Seaborg protégé, resigned from Brunkhorst's group and became the facilitator, acting as a go-between linking Seaborg and the two teams of consultants.

Metzenberg, suspicious at first, came to trust Otto's ability to "see both sides." Brunkhorst, however, saw Otto's resignation as betrayal.

The two teams worked side by side without establishing trust or respect for each other. A draft might have one color for Brunkhorst suggestions, another color for Metzenberg's language. The split document went to the commission.

Brunkhorst was amazed and angered by the commission's refusal to accept AAAS standards based on student inquiry. Metzenberg, focused on content, opposed a separate strand for investigations and experimentation. "I was never worried students wouldn't get lab experience and hands-on activities. I thought it was important they actually know something at the end of the lab experience."

The commission's standards stuck to one verb, "to know."

Brunkhorst cites that as a failing. "They never say 'understand and be able to use it.' They just say 'know.'"

For Metzenberg, simplicity is a virtue. "Other state standards pulled out Bloom's taxonomy: They use 'to understand, interpret, analyze' . . . nobody knows what that means. We just use 'to know.' Ours are easy to write test questions for, very precise and straightforward."

The subcommittee looked at Virginia's Standards of Learning as well as overseas at India and elsewhere. "We looked at countries that haven't fallen into the trap of fuzzy education," Metzenberg says.

The American Federation of Teachers' reports on what college bound students abroad are expected to know in chemistry, physics, and biology proved helpful. The AFT printed the Tokyo University entrance exam, the British A-level exam and Germany's Abitur, including what percentage of students attempted the test and what percentage passed.

"Developmental appropriateness" became a battle. Brunkhorst believed children could be confused and frustrated by being exposed to concepts they're not ready to understand. Metzenberg saw no harm in exposing children to ideas that might be a stretch.

"In kindergarten we said they should know that water evaporates from an open container but not from a closed con-

tainer,” Metzenberg says. “It suggests a nice experiment. Bonnie said psychologists have found kids that young have no concept of water as a gas. It would case them stress and harm to try to learn that. My friends joked that California needs an open container law to protect children from harm.”

“People try to ignore developmental psychology,” says Brunkhorst. But “it does more harm than good to be exposed to the periodic table in third grade.”

Seaborg wanted the periodic table—element 106 was seaborgium—on the wall in elementary school to prepare students to learn more in high school. It became a symbol of high expectations.

Brunkhorst’s team focused on the lower grades, while Metzenberg started in high school and worked backward. They met in middle school, which became “a huge train wreck on content,” Metzenberg says. “Bonnie was arguing students couldn’t learn a lot of content in fourth and fifth grade so the content built up in middle school.”

Seaborg pushed for more content in the early grades. Other commissioners didn’t want to set low standards that might become the ceiling, but also feared setting high standards that would be unreachable.

The compromise was to put an asterisk by standards that only advanced students would be expected to learn.

Metzenberg was pleased with the result; Brunkhorst says only that the science standards ‘could have been a lot worse.’”

When it came to a vote, Seaborg abstained, complaining that too much had been asterisked. But he autographed a copy of the periodic table for Hill.

When the board accepted the standards, progressives protested once again. Luther Williams, the NSF program officer, wrote a letter saying the foundation would stop funding education grants in California.

The board didn’t waver. The threat proved to be empty.

Classroom teachers like California’s math and science standards, Pimentel says. As she goes around the country consulting on standards, she brings models from other states as a base to build on.

“I bring California science standards along, as well as Indiana, and more often than not they like the clarity and focus of California—and they really like Indiana—even though they know and like NSF and AAAS. While the battle may rage outside, the teacher in the classroom is able to look at these different renditions and put them together in a way that makes sense.”

Intellectual leaders and advocates fought like hell to make sure the standards came out right—and didn’t stop until they won.

California’s standards aren’t a compromise, Kirst says. “California turned very traditional in reaction to what had happened before. One side won over the other: That’s what makes the California standards so strong. You don’t have a lot of mush.”



California’s abysmal NAEP showing in the early 1990s created an environment friendly to reform. But that wasn’t enough; shrewd political leaders such as Governor Wilson also made tactical decisions—such as strengthening the state board of education and weakening the superintendent of public instruction—that eventually proved critical. Most important, intellectual leaders and advocates such as Marion Joseph, Bill Evers, and Glenn Seaborg fought like hell to make sure the standards came out right and didn’t stop until they won.

Massachusetts: Business Leadership in the Bay State

In the massive bureaucracy that is any state’s education system, reform leaders rarely unify the many factions that hold a stake in the industry. More often, they become yet one more group fighting for control of the K-12 apparatus. In Massachusetts, however, a reform-minded business leader long set on improving K-12 education in his state played the unusual role of mediator—paving the way for the Education Reform Act of 1993 that set the Bay State on its way to creating first-rate standards and accountability systems.

That leader was Jack Rennie, CEO of Pacer Systems (now AverStar Inc.). In 1988, he formed a group called the Massachusetts Business Alliance for Education (MBAE), a collection of entrepreneurs and executives worried about the effect of a poorly educated populace on the state's economic future. His goal was to get business involved in education policy reform, not just in funding pet projects.

Working with co-founder Paul Reville, a former teacher and alternative school principal who served on the state board of education from 1991-1996, Rennie produced the 1991 manifesto *Every Child A Winner*. It spelled out three broad goals for reforming education in the commonwealth: 1) Improve student achievement by tying academic goals to international norms; 2) Improve teacher quality and the operations of schools; and 3) Reform the education finance system, which at the time rested heavily upon property taxes, and thus shortchanged low-income children.

"We knew we had to reform funding," says Reville, who's now executive director of the Rennie Center for Education Research and Policy in Cambridge. "The poorest quarter of districts were spending \$1,300 less per student than the richest quartile." Business-school partnerships had let executives "see the antiquated ways schools operate with no clear goals, no data on performance. The whole thing struck business people as poorly organized."

The business community was also influenced by international comparisons, such as the Third International Mathematics and Science Study (TIMSS), Reville says. "Americans used to think we educate more students while other countries educate only the elite. It became clear that's not true any more. Other countries educate more kids to a higher level than we do. Our top students are like average students in Japan."

An Opportunity for Reform

The Rennie report's release was serendipitous. About the same time, the state was hit with an equity lawsuit challenging its system of funding schools. The legislature was forced to fix the finance system and in *Every Child A Winner* it had a blueprint.

"We worked for years for comprehensive school reform, not just small initiatives," says Robert Antonucci, who was Massachusetts commissioner of education from 1992 to 1998. But it was MBAE, he recalls, that made it possible.

True, but the reform initiatives also enjoyed ample support in the governor's office and legislature. Then-Governor William F. Weld, a Republican, supported introducing an education reform initiative in the legislature. Backing him were two powerful legislators—Democrats Tom Birmingham, president of the state Senate, and Mark Roosevelt, chair of the House education committee, who led the fight to pass a comprehensive bill.

"In 1992-93, there were five different versions of the education reform bill," Antonucci recalls. "We all worked aggressively on a bill we could agree with. A big piece was the curriculum frameworks... The consensus backed sustained funding for equity coupled with standards and assessment."

Birmingham, who now practices law in a Boston firm and was then considered strongly pro-labor, says: "As a matter of principled conviction, I and others believed [that] without measurable standards there would be no way to tell if we were making progress. The idea that we'd make a massive investment in schools without standards was a nonstarter. We're going to increase funding by \$2 billion and not change a thing?"

Teachers had a "show me the money" skepticism, he continues. "The legislature had a habit of embracing the trendy ed reform du jour and then getting tired of it and dropping it. In addition, there were people who said we were just throwing money at the problem. That wasn't true. We were demanding accountability from teachers, principals, and students. If we'd tried to do standards without more money, it would have been a pitched battle. Education reform is like a bicycle: One wheel is funding and the other is standards and accountability. It won't move forward with only one wheel."

"Among the educators' groups," recalls Roosevelt, who's now superintendent in Pittsburgh, "only the superintendents' group supported the bill" initially.

The unions did not take a strong stand. "One of the teachers' unions supported the bill mildly; the other opposed it mildly," Roosevelt notes. This is where MBAE was "enormously helpful...For a business group to support more funding was critical." MBAE was "more of an advocacy group than just a business group," he points out. It may not have represented the views of the commonwealth's entire business community but it was the most active and vocal group focused on education.

Rennie went across the state, listening to people's concerns. "Jack Rennie had the particular quality of creating civil discourse," Reville says. "He was a great listener, very appreciative of educators."

Teachers' union leaders remember Rennie, who died in 2001, with respect and affection. "Before Jack Rennie got involved, there wasn't much leadership from business," says Kathleen Kelley of Massachusetts Federation of Teachers (MFT). "Without him it would have been hard to pass a comprehensive education package. He talked to everyone. He listened to us. He challenged us. His personal leadership was unbelievable. Talking about standards, accountability, resources—he was such a dynamic personality."

"Jack Rennie was a fabulous person," says Rosanne Bacon Meade, who headed the Massachusetts Teachers Association (MTA) during the negotiations that led to the Education Reform Act. When other groups were pointing the finger of blame solely at teachers," Meade recalls, "Jack and Paul were [working] to bridge the gap."

MTA invited Rennie and Reville to meet with local presidents. "Rennie had the ability to tell you you were wrong and make you glad he'd told you," Meade says.

Creating Standards: Phase I

Once the reform act passed in 1993, however, teachers began pushing back.

"There was some resentment at the idea that standards had to be imposed from the outside, that we didn't have our own standards at the local level," Meade says. Ultimately, the standards push forced a much-needed discussion: "Do we have lower expectations for urban kids?"

The answer was clear: Yes.

Massachusetts had little to build on when the standards effort started. The only statewide test administered at the time measured basic skills in fourth, eighth, and tenth grades; it was aligned to nothing in particular and nearly everyone passed. "A Massachusetts diploma meant nothing," says Birmingham. "We only required English, U.S. history, and four years of gym, which is a testimony to the strength of the gym teachers' lobby."

"Massachusetts really believes in local control," says Antonucci. "We have more school districts than towns in the state. The reform bill was seen as taking away local control. School committees lost the power to hire and fire anyone but the superintendent. The big complaint was, 'We can't hire the football coach.' That seemed to bother them more than anything else."

Rennie had the ability to tell you you were wrong and make you glad he'd told you.

But the education department had its marching orders, and its first move was to establish a commission to create a "common core of learning" that would identify what high school graduates should know and be able to do in order to "lead productive, fulfilling, and successful lives."

"It was an aspirational document that was quickly ignored because it was too general," Reville says.

Meanwhile, the department was recruiting for committees that would write multi-grade "curriculum frameworks," to be aligned to tests at grades 4, 6, 8, and 10.

Out of roughly 1,000 applicants, the department selected superintendents, principals, teachers, parents, high school students, professors, and business and community leaders to serve on the framework committees (each with about 25 members) in English, history, math, science, world languages, health, and arts. The committees took 1994 and 1995 to do their jobs. It proved a labor-intensive task.

"We looked at what was happening nationally, in states like Kentucky, and overseas," Antonucci says. "We didn't try to reinvent the wheel. We didn't want to be pioneers."

The department's own work reflected familiar progressive thinking about how children learn and it focused on making bold advances in teaching, learning, and school culture.

Dan French, then Massachusetts director of curriculum and instruction, describes the process in "The State's Role in Shaping a Progressive Vision of Public Education" in the November 1998 *Phi Delta Kappan*:

PAUL REVILLE



Along with Jack Rennie, Reville was co-founder of the Massachusetts Business Alliance for Education, which produced the book *Every Child A Winner*—an early key to standards reform in the Bay State.

Americans used to think we educate more students while other countries educate only the elite. It became clear that's not true any more. Other countries educate more kids to a higher level than we do. Our top students are like average students in Japan.

The original draft frameworks were developed to be broad guidelines of what students should know and be able to do, while providing wide latitude to districts in the creation of curriculum that matched the standards. They avoided long lists of bits of knowledge that students must learn. The standards were crafted to focus on the concepts and skills that students must know, which could then be applied to the voluminous factual content of the discipline.

Grants were given to each school district to launch teacher study groups. The money paid for 1,000 teachers to be trained as facilitators. The teachers discussed how to implement the draft standards and developed curriculum examples.

About 10,000 teachers were involved across the state, says French. “We had almost 20 percent of teachers in study groups.” Their involvement proved important, both for the ideas about teaching the material they generated and for the buy-in it created. Teachers were, for the most part, thrilled to finally be a part of the curriculum process.

“In the first iteration of standards, there was lots of cooperation and collaboration,” says David Driscoll, who took over as commissioner of education in 1998, when Antonucci left to become president of Fitchburg State College. “At the start, the department and the field were singing Kumbaya,” Driscoll recalls. “We got teachers talking to each other across grade lines and within the grade.”

“The first two years of reform was an exciting time,” the MFT’s Kelley says. “People in schools were moving forward. For the first time, teachers sat down and looked at what they were teaching, really discussed the curriculum. They realized they had lower expectations for students than they should have.”

As teachers and administrators got more involved, business leaders began fading into the background, Reville says. “When you look at the standard-shaping process, the overwhelming majority of people involved were educators. After the first push for reform, it was hard to get business executives to attend tedious meetings hashing out standards.”

Creating Standards: Phase II

The cordiality of the first two years of standards development didn’t last. The state board of education, chaired by Martin Kaplan, accepted the science and math frameworks in 1995 but sent the English/language arts and history frameworks back for revision. Abigail Thernstrom, a new member of the board, complained that the history framework stressed “process skills” and “modes of inquiry” at the expense of content.

While some educators were excited by the discussions, others complained about the slow pace. “A *Boston Globe* op-ed called the process ‘inclusive to the point of paralysis,’” Birmingham remembers.

In 1996, Governor Weld decided he needed a strong leader to run the board of education and expedite standards development. He picked the man who’d almost beaten him in the governor’s race, John Silber, the brilliant, acerbic take-no-prisoners president of Boston University.

During the 1990 campaign, Silber had called Weld a “backstabbing son-of-a-bitch” and an “orange-headed WASP.” He was just the type of man who could move the process along.

Silber thought the board too large and unwieldy, so Weld and Democratic leaders in the legislature agreed to cut its membership in half. Weld appointed the new board, which included Ed Delattre, a Silber friend who was BU’s dean of education.

The new board was more conservative—and much more aggressive.

“Silber drove a much increased level of rigor—and he hated edubabble,” Driscoll says. “Basically, he drove us to a more traditional, rigorous, and classical framework.”

In Silber’s view, inclusion was a waste of time. At his first board meeting on March 22, 1996, he said that the large number of advisory groups working on the frameworks was an obstacle to progress. The board notes record what happened next:

Silber suggested it would be more efficient to use a few well-informed experts to draft policies and curriculum frameworks, and then solicit public comment.

Paul Reville responded that the Board has assumed the scope and scale of Education Reform require major change, and that people will support the changes they help to create. For that reason, the Commissioner and Board have worked to engage many people in policy decisions.

Dr. Silber followed up by noting that too much participation tends to lead to the “lowest common denominator.”

The framework committees were dissolved and in their stead consultants were hired to form new committees to develop the English/language arts and history frameworks. The board wanted the frameworks to be more specific about what to teach (phonics for new readers, content for history students, etc.), while avoiding directives on how to teach.

The English consultant was Sandra Stotsky, a former third-grade teacher who edited *Research in the Teaching of English*, published by the National Council of Teachers of English, and directed

summer institutes on civic education at Harvard Graduate School of Education. Stotsky worked with a committee made up equally of “outstanding academically oriented teachers” she’d chosen and members of the old framework committee.

“It was very politically intense,” says Stotsky. “There was a lot of pressure from whole-language believers. I did a lot of the writing myself.” As the editor of a research journal, Stotsky knew the reading research well and could call on prominent researchers for support.

By the end of the year, she was ready to present her draft. “The first thing was to make sure John Silber liked the document. When I showed it to him, he treated it like a dissertation. He went over it line by line for four hours. I went back to the department and said, ‘this is what we have to do.’ I didn’t give in to him if I didn’t agree with his point of view.” A good example is how the reading lists were constructed.

Silber envisioned *Moby Dick* as required reading. Stotsky decided to list authors, not titles, and to write two lists: One covering “literary and civic heritage” (the dead white males), and the second covering “contemporary, multicultural and world authors.”

Stotsky asked the editor of *Horn Book* magazine to vet the K-8 list, and an eminent African-American scholar and a number of other scholars to vet Appendix B for grades 9-12. “That ended it,” she says. “There was nothing more they could do about the list.”

Stotsky’s English framework was accepted by the board.

Pitched Battles Over History

History turned into a war—a long one—that angered progressives and turned board members against one another.

It “was a disaster,” says Driscoll. “We had dueling frameworks: Silber and Ed Delattre wrote one. We had board members writing frameworks!”

“Silber and Delattre were adamant about getting more content experts from higher education,” says Jeff Nelhaus, then deputy commissioner in charge of assessment

“They almost all came with personality disorders,” Driscoll adds.

“They were people with incredible content knowledge who hadn’t been in a high school for decades,” says Nelhaus.

Even before Silber’s takeover, the board had considered the original history framework too trendy and vague.

“The original history committee argued for organizing around fundamental themes and dilemmas of history, allowing flexibility in local districts,” says French, the Massachusetts director of curriculum and instruction.

Historian Paul Gagnon, the new history/social studies consultant, removed the jargon. Instead of “people and places,” Gagnon brought back “geography.” “Power” was replaced by “civics and government.” What the phase one standards had called “time and place,” Gagnon called “history.”

*“I wanted to know,”
says Sandra Stotsky, “When are students
learning standard algorithms?”*

But Gagnon didn’t change enough to satisfy Silber’s board, which wanted a stronger foundation of factual knowledge. Thernstrom suggested that the board model Massachusetts’ framework on Virginia’s Standards of Learning, the Old Dominion State’s standards, which are tied to the state’s SOL exams required for graduation.

A board committee composed of Thernstrom, Jim Peyser, and Roberta Schaefer revised Gagnon’s draft using Virginia’s standards and others. Diane Ravitch, who had served as U.S. assistant secretary of education, praised the draft in a letter to the board for its “richness, conciseness, and appropriateness.”

But not everyone agreed.

“All hell broke loose,” say French, who resigned and became executive director of the Center for Collaborative Education. Educators attacked the Virginia-inspired draft as Eurocentric and called it a laundry list of disconnected names, dates, and events. They hastily organized to protest at the January 1997 board meeting.

Worried that the standards were too ambitious, especially for elementary students, the board sent the latest

draft out for another rewrite. Silber named a new committee composed of board members Delattre, Patricia Crutchfield, William Irwin Jr., and three teachers. Their work proved no less controversial.

“Heavy on facts, the latest draft provides flexibility in outlining what material teachers should cover,” wrote *Education Week* on June 11, 1997. “It includes sections on core content, guiding principles, and reasoning for all grades, allows for a more multicultural focus, and provides for integration of the subject into other disciplines.” The guidelines were also more appropriate to each grade, Silber said.

Members of the first committee—Peyser, Schaefer and Thernstrom—were not happy with the Delattre/Crutchfield/Irwin rewrite. *Education Week* reported:

“Ms. Schaefer questioned Mr. Delattre’s motivations in writing a 17-page critique of her committee’s draft. She accused Mr. Silber, the chancellor of Boston University, of trying to gain a financial advantage for his institution by handing the project over to Mr. Delattre, who is the dean of education there. Paul A. Gagnon, a senior research associate at the university, was the author of the draft that was submitted last fall.

Having Boston University officials so closely involved with the document, Ms. Schaefer asserted, would allow the school to attract much of the business of writing textbooks and training teachers.

Mr. Silber called the allegations ‘libelous and slanderous.’

More than two years after the original deadline, the board finally approved in 1999 a history and social studies framework. The struggles proved worthwhile. The Fordham Foundation awarded the state’s history standards the grade of B in 2000. But the battle took its toll on Silber, whose alienated many of his colleagues on the board, even those who’d started as his allies.

“The board ground to a complete halt,” Reville says. In 1999, Silber stepped down and was replaced by Peyser.

Meanwhile, the math and science war had ignited.

Math and Science Mayhem

The original math framework, influenced by NCTM standards, stressed hands-on activities, multiple approaches to problem solving, real-world examples, and student exploration of math ideas. The goal was conceptual understanding. The board wanted it rewritten to include computation skills.

Recalling that first draft, Driscoll said “What the hell was I thinking?”

He had majored in math in college and thought the debate had nothing to do with math. “It was all about ideology, philosophy, and politics.”

“It was set up as either/or,” says Nelhaus. “Learn procedures or learn to solve problems. Of course, kids need to do both.”

The framework lacked clarity, Driscoll says. “On the first go-round, we said students in grade four should know basic math operations. But what does that mean? Should they be able to multiply a three-digit number by a two-digit number? We needed to be more precise. Look, two-thirds of my kids couldn’t do simple division problems in fourth grade.”

Stotsky joined the education department in 1999 as a senior associate commissioner charged with revising the frameworks, starting with math and science.

“We hired Sandra Stotsky, who’s a true intellectual,” Driscoll says. “She’s very smart, but ... [she] came along a little bit like Attila the Hun and said, ‘We’re going to do it this way.’”

“The fuzzies were in control,” Stotsky says. “The early grades had been written by TERC, a progressive math and science education group, which then was selling its materials to fit the standards they’d written.”

She wrote a bluntly worded critique of the framework, assuming it would be circulated only within the department. It went to committee members, angering many of them.

“I wanted to know,” says Stotsky, “When are students learning standard algorithms? [The committee members] were very unhappy,” she remembers. “They said, ‘There’s no such thing as a standard algorithm. Who are you to critique this?’”

JOHN SILBER



Brought on by Governor Weld in 1996 to head the state board of education and to expedite standards development, this former head of Boston University had a reputation for being acerbic and having no patience for edubabble.

Basically, he drove us to a more traditional, rigorous, and classical framework.

—David Driscoll speaking about Silber

But Driscoll believed in teaching standard algorithms and so did the state board. Furthermore, passing the tenth grade MCAS would be a graduation requirement. “Kids were doing terribly in math, and math would count for graduation by 2003,” Driscoll said.

The relationship between Stotsky and the committee charged with writing the science frameworks was no less acrimonious. The same progressive/traditional divide separated her and Driscoll from many working on the frameworks.

“In science, we’re out there doing hands-on, inquiry-based: We’ve got kids pumping up balloons having a ball,” said Driscoll. “But what are they learning?”

“Science teachers were teaching inquiry as good in itself, separate from science,” says Nelhaus, who majored in science in college. “In the revised version, we have 10 inquiry skills in the framework, things like being able to frame a scientific problem, test a hypothesis. We have open-ended math and science questions, not multiple choice.”

“I made a mistake in thinking that reasonable people could compromise.”

Originally, the department called for integrating science subjects, Driscoll says. “Our 10th grade test was a smattering of biology, chemistry and physics. Classroom teachers said, ‘It’s not working.’ Then we asked how many schools were teaching integrated science? About 2 percent. We thought we were following the European model, but we realized the Europeans teach these subjects concurrently but distinctly.”

Stotsky urged the commissioner and board to reject the math and science drafts and disband the committees. The “Dear John letters” went out.

Wilfried Schmid, a Harvard mathematician, volunteered to help write new math standards. “His daughter was in third grade,” says Driscoll. “At home he was teaching her differential equations. He saw her homework was to circle like things; the next week she was still circling like things.”

In addition to Schmidt, who donated 100 hours of time to the math framework, Stotsky relied heavily on a team of gifted classroom teachers who’d been offered sabbaticals to work temporarily in the department. Beth McBride, the math coordinator, knew classroom teaching and did much of the writing. “The sabbatical teachers helped translate it to grade-level standards,” said Stotsky.

Throughout the process of revising math and science, Stotsky called on her network of academics. “I could call up and get an answer in 12 hours. They’d never had so many PhDs volunteering.” Teachers working in the department also “came over and became my most dedicated helpers.”

Stotsky was accused of advocating “drill and kill.” Called a “bloodsucker,” she bought a Dracula puppet on a trip to Europe and hung it in the entry way of her house in Brookline.

Progressive educators opposed the revised math framework, says Driscoll. “NCTM testified against us. Two years later, NCTM rewrote their standards, calling for more rigor, more computation.”

Some who complained about the math framework hadn’t actually looked at it, Driscoll says. “I got a petition from a Cambridge elementary school that thought the math standards process was terrible. I told them the board had voted, this was it, to give it a try and I’d come to visit when they were a few months into the school year. I came in October. They reiterated their complaints about the process. It was as if they were reciting every event in the Civil War by date and battle. I asked again how they were teaching the standards. They hadn’t even looked at the frameworks. They said their superintendent had told them to emphasize reading; the kids could catch up with math later.

“I made a mistake in thinking that reasonable people could compromise,” Driscoll says. “On some things, we had to just decide. Picket all you want.”

Testing the Standards

As controversies over the standards faded, the focus shifted to testing—an eternal source of conflict. MCAS was given for the first time in 1998.

“When we gave the test, that was the beginning of the end of our happy relationship with teachers,” says Driscoll.

“High-stakes testing has drained a lot of life and fun out of teaching. There’s too much regurgitating for the test,” says the MTA’s Meade. “But it did bring tutoring and extra support to places where kids were doing poorly. Some teachers think standards will go away. I disagree: Standards are here to stay and that’s a good thing. But you don’t fatten a cow by weighing it.”

“Some teachers didn’t think we’d have a test,” says Birmingham. “We said we would, but there was a willing suspension of disbelief. Some districts didn’t take standards seriously till we came out with the test. Surprise! They really mean it! Then we saw a sea change. There was a renewed focus, particularly with kids who posed the biggest challenges.”

Making MCAS a graduation requirement was essential to motivate students to try harder, Birmingham says.

He was terrified that a third or more of students would fail to graduate because of the MCAS requirement. As it turned out, most youngsters rose to the challenge. “As a political matter,” Bridge observes, “when you get 90 percent of kids passing a test it’s a different equation from having only half pass. I was putting on my seat belt for a 66 percent pass rate.”

Reville had the same fears. “The MCAS train wreck didn’t happen,” he says. “The standards we set proved to be attainable for the overwhelming majority of students.”

“Education reform has helped city schools the most,” says Reville. The suburbs were complacent about their schools and unwilling to change. “It was the urban superintendents who stood up and defended it, even though they arguably had the most to lose.”

“Before education reform there were loads of kids not getting a meaningful education,” Birmingham says. “They were socially promoted.” His sister is principal of a high school in low-income, multi-ethnic Chelsea.

“The overwhelming majority of urban superintendents strongly support standards,” he continues. “The most zealous opponents to MCAS are the privileged communities. They think it’s soul-destroying, that what students need is higher-level thinking. But if they don’t know anything, thinking about what?”

“I think standards are the best thing we ever did,” Antonucci says. “They got everyone focused on the fact that everyone can learn. There was a time when we wrote off a lot of kids.”

At the “competency” level on MCAS, the achievement gaps are closing, Reville says. The next goal is to close those gaps at the higher “proficiency” level.



Standards-based reform in Massachusetts would have been impossible without business leadership. The foresight and energy of Jack Rennie set the stage for fundamental reform. But even this wasn’t enough to get the standards themselves right, as the state’s false start demonstrates. It also took intellectual leadership from John Silber and Sandra Stotsky, the political backing of Governor Weld, and a willingness to fight and win the

tough curricular battles. As in California, good intentions were not enough to achieve good standards; plenty of grit was needed, too.

Indiana: Clear, Concise, and Jargon Free

Once upon a time, an Indiana teenager could leave high school for a factory job and earn more money than his teachers in his first week. He could work on the family farm without tracking global markets or environmental regulation.

By the 1990s, however, high-wage, low-skill manufacturing jobs were gone and farming had gone high-tech. To earn a decent living in a factory or farm or almost anywhere else, Indianans needed far more education.

The standards movement in Indiana came from the sense that the state had to turn the corner.

“Employers complained that they were giving tests for entry-level jobs, and out of 50 people they’d only get 10 who could be considered because of the lack of reading skills,” says Sue Scholer, a Republican who served on the House education committee. “When the steel mills closed, a lot of those workers couldn’t be retrained. They were illiterate.”

Business leaders feared Indiana would be stuck in the Rust Belt if it didn’t start competing with other states—and countries—to produce a skilled workforce. They had reason to fear. In 1986, the legislature approved the A+ bill, which mandated the Indiana Statewide Testing for Education Progress (ISTEP) exam. The failure rate was high. Parents grew outraged as children who did pass the exam and enter college found themselves taking remedial courses just to stay afloat. Higher education leaders seconded their cries, noting that the remedial burden on them was only growing.

Indiana’s requirements for a high school diploma were the weakest in the country, says Cheryl Orr, a higher education commission staffer who became leader of “the standards gang.” “Our college-going rates were dismal. Families didn’t think college was needed.”

“The standards movement here came from the sense that Indiana had to turn the corner,” says Teresa Lubbers, Republican chair of the Senate Education Committee. “In Indiana, we only change out of a sense of crisis.”

In 1997, led by the Chamber of Commerce, state business leaders proposed that the legislature create a roundtable to discuss what kids need to succeed. The legislature wouldn't bite, in part because it was under the sway of the Indiana State Teachers Association (ISTA), which had no interest in pursuing a reform agenda.

Governor O'Bannon took the decisive step to reform the state's ailing K-12 system.

The state board of education wasn't interested, either. It “wasn't an aggressive group,” says Republican Brian Bosma, now speaker of the House, who worked on the A+ education reform bill that created the state testing system. “The board was captive to the vested education interests—to the union and the bureaucracy. They weren't interested in change, just getting more money in the system.”

O'Bannon's Charge

Governor Frank O'Bannon understood what the business leaders, parents, and professors were worried about. And unlike the education establishment, he took a decisive step to reform the state's ailing K-12 system. He created a 29-member advisory group, an action permitted by the legislature, called the Education Roundtable. O'Bannon, a Democrat, worked with Superintendent Suellen Reed, a liberal Republican, and Higher Education Commissioner Stan Jones, a former Democratic legislator who'd been defeated by Reed for the superintendent's job. They gathered together all the players: educators, legislators, business leaders, union leaders, and parents.

Early in 1999, a series of national reports ranked Indiana's academic standards as among the worst in the country, says Derek Redelman, who worked for the Hudson Institute and then for CLASS and ended up at the Sagamore Institute. “Our English standards were the worst in the country, according to the Fordham [Foundation],” says Redelman. But some in the state were still in denial. “The *Indianapolis Star* ran a story saying, ‘Oh no, that's not true. We're the best.’”

A year after the Education Roundtable was created, O'Bannon pushed a law through the legislature giving the group official status with the job of developing standards and tests.

“There was a Democratic governor and House, and a Republican Senate,” says Dan Clark, ISTA's standards specialist. “Because of the power split, nothing got done. ISTA and the Chamber of Commerce didn't agree on anything. They felt fulfilled in disagreeing. O'Bannon got interested in the national movement for standards and wanted to do something in Indiana. It was clear you couldn't get anything done without bringing people together.”

“We'd had a very bad legislative session,” says Scholer, who became one of four legislators on the Roundtable. “People were at each others' throats.” O'Bannon and Reed got ISTA, the principals' and superintendents' groups, the Chamber, and the Manufacturers Association to sit down together. “The people at the table were leaders, not lobbyists,” Scholer says. “Reed and O'Bannon came to every Roundtable meeting. They didn't send underlings.”

The Roundtable met every month. “When we started, there was very little trust,” says Orr. “People hadn't talked to each other in a long time. They were playing the blame game.”

“It took 18 months before everybody became comfortable about putting controversies on the table and talking it through,” says Scholer.

“When the Roundtable started, educators were suspicious and resistant to having a policy board with so much business representation,” says Kevin Brinegar, president of the Indiana Chamber of Commerce. “We had battles over the cut scores on ISTEP. By and large, business folks prevailed on cut scores. Educators realized we were a force to be reckoned with. We got beyond ‘just give us more money’ to ‘OK, we know you're not going away so let's talk.’ We moved to much more collaboration, a more constructive relationship.”

Eugene White, then superintendent of Washington Township and now of Indianapolis, credits O'Bannon and Reed for creating an atmosphere where people could disagree without insulting each other. “They emanated

courtesy and respect. These were nice, Indiana-bred people. It was hard to be mean around them.”

While the governor and the superintendent ran the roundtable, “Stan Jones was the man behind the curtain,” White says. “Cheryl Orr and Stan Jones set the table and set the agenda. They’re very good puppet masters. They created an agenda that didn’t leave a lot of time for discussion and dissent. There was too much to do.”

When disputes did break out, says White, “Stan was the mediator. He put out fires.”

“Politically, the roundtable was made up more of educators and people in the system,” says Pat Kiely, a former legislator who became Indiana Manufacturers Association (IMA) president. “Business could be outvoted two to one. But nobody wanted to endorse standards that the business community said were no good.”

ISTA “did not go negative,” says David Shane, who’s now an education aide to Governor Mitch Daniels. “They had a seat at the roundtable and were part of the conversation. It was an oddly collaborative process.”

Accountability + Money = Standards

All the roundtable members agreed that Indiana needed tougher graduation requirements, which became known as the Core 40, as well as new academic standards.

“A lot of frustration and infighting preceded the Roundtable,” says Jones. “We started where we thought we might be able to find consensus, the standards.”

Teachers wanted clarity, says Judy Briganti, president of ISTA. “Before we had vague proficiency statements. It was difficult for me as a fourth-grade teacher to see what students should know. The proficiency statements weren’t aligned to the tests, so the tests just came out of the blue.”

The union also wanted more funding to help schools reach higher standards. The business community was willing to negotiate. “Business was willing to support more funding with the standards and accountability in place,” says Brinegar. “It would have been much more difficult without the money.”

Reed and Jones created a group of standards writers, led by Cheryl Orr, that met every two weeks and reported to

STAN JONES



Stan Jones is a Democrat and head of the Higher Education Commission. As a member of the Education Roundtable, he kept the group focused on reforming standards, not allowing petty arguments and personal agendas to detract from the great goal.

Stan Jones is the man behind the curtain. [He] set the table and set the agenda. ... that didn't leave a lot of time for discussion and dissent. There was too much to do.

—Eugene White,
Indianapolis School Superintendent

the Roundtable. The first job was to look at what Indiana already had: Vague, wordy, inconsistent “proficiency guides” that covered multiple grades and focused on what teachers should do, not what students should learn. It was impossible to use the proficiencies to measure progress.

The proficiencies were “loaded with such spongy benchmarks as a student should be able to ‘show a positive attitude toward language,’” wrote Dave Smith, a Gannett reporter.

“We had to be brutal with ourselves, willing to look at the good, the bad and the ugly,” says Orr. “At the beginning, we knew we needed improvement, but we didn’t realize how much. Some thought we could just tweak the proficiencies. No. It was a significant amount of work.”

“Clear, precise, and jargon free” became the mantra of the standards gang.

“We had to abandon the priestly language we’d always used,” says Dorothy Winchester, education department program officer and standards gang member. “If we said our goal was for children to be ‘making meaning,’ what did that mean?”

*Clear, precise, and jargon free
became the mantra of the standards
gang in the Hoosier State.*

The old proficiency guides had been mailed to district offices. “We’d visit schools and see the proficiencies in their shrink-wrap on top of a cabinet,” Reed says. She wanted the new standards to be so useful that people would be motivated to read them.

“Some people wanted one set of standards for teachers and another set to show to parents,” Reed says. “I said, ‘no, no, no, no.’ We sent copies of the standards home in the fall. They’re written so parents and even students can read them and understand them. We put them up on the web.”

The roundtable decided that specific standards would be more helpful to teachers. “Before we had grade clusters: fourth through sixth, second through fourth. But people don’t teach like that. They teach grade 5, not grade 4, 5, and 6,” says Jones.

Researchers were invited to talk to the Roundtable. “We had Kati Haycock of Education Trust in to talk about disaggregating scores,” says Scholer. “Everybody was

getting the same information from people with expert knowledge so everybody was on the same page.”

The Roundtable looked at NCTM standards, standards in other states, NAEP, TIMSS and the Baldrige continuous improvement model used in North Carolina.

Committees of teachers wrote and reviewed standards.

“Part of the reason our standards are good is that they are written by classroom teachers,” Lubbers says.

“So many teachers were involved that almost everybody knew somebody who was part of the process,” Reed says. It helped create buy-in.

At first, teachers were resistant, says Reed. “A fourth-grade teacher who’s developed a spectacular unit on butterflies doesn’t want to give that up because it’s a third-grade standard.” But the standards let teachers focus on how to teach.

More and more teachers came over, Winchester says, when they realized the virtues of knowing what was going to be taught when.

For teachers in inner-city or rural schools, the standards were daunting, says Winchester. “With the publication of the first draft of the standards, teachers said, ‘My kids could never do this.’ They didn’t believe their kids were capable. But the standard of what’s good has to be the same across the state.”

That’s important for parents in low-income communities, says Rogers. In 34 years as a K-6 teacher in Gary, “I never paid attention to what the state had to say. It was all decided locally.” State mandates sent from Indianapolis would go to the principal’s office, nicely shrink wrapped, and never be seen again by teachers. “Now all kids get taught the same thing across the state. That resonates well with parents. Third graders in Gary have the same standards as third graders in rich communities like Munster.”

The first draft was vetted by teachers across the state. The “standards gang” also talked to professors to make sure that students who passed high school chemistry, for example, would be ready for college chemistry.

Outside Validation

It wasn't enough to reach consensus within Indiana. Business insisted on external validation to make sure the standards were competitive, says Shane. "Having outside advice relieved us of the need to fight among ourselves about what was adequate. We weren't trying to be the first in the country. We just wanted to do the right thing."

The Chamber of Commerce paid the academic experts who carried out the Fordham Foundation reviews to evaluate the first draft of the standards. Chris LaMothe, a Chamber and Roundtable member, showed the report to Jones. "Fordham gave us a B+ and an A. So I felt pretty good," says Jones. "Chris said, 'Shouldn't we get an A in both?' So the Roundtable hired Fordham and then Achieve to evaluate our work. Fordham was not, however, involved in writing these standards. We looked at some standards that were fuzzy, not very concise and couldn't be tested. We tried to learn from those, but Achieve and Fordham best represented where we wanted to go," says Jones.

"We thought we'd done a good job on the standards," says Reed. "But Achieve told us, 'You need more rigor.' So we looked at that."

Sandra Stotsky, fresh from working on English/language arts for Massachusetts was hired to evaluate the Indiana English standards through several stages of development. "Before their reform effort, Indiana had some of the worst standards in the country," Stotsky notes. "It was things like: 'Children should love to read.' Is this a standard? It has to be measurable." In the end, Indiana "came up with a fantastic document," she says. "Indiana piggybacked off California and Massachusetts, but they didn't just clone. They wrote it themselves."

Sheila Byrd, with experience as a staffer on California's standards commission, was also hired by Achieve to help Indiana benchmark its standards to other states and to international standards. "They had a huge, unwieldy set of expectations," she says. "We held up California as a benchmark."

"Early on, Stan Jones and others realized we were not going to get better unless we expanded our views," says White, the now-superintendent of Indianapolis. "We turned to Achieve, the Education Trust, and others. We had a sense you had to know what was going

on in the rest of the country. We were not into education trends. We stayed focused on outcomes, preparing kids to go to college."

The gang also consulted AAAS's Science Project 2061, the International Center for Leadership in Education, and a group of history educators. "For each of the content areas, we had at least two outside national groups plus our own people," Orr says. "We opened ourselves to scrutiny."

"We were not into education trends.

We stayed focused on outcomes, preparing kids to go to college."

Outside experts didn't always understand classroom challenges, White says. "We had to make sure that people with a theoretical understanding of standards understood what was going on in the classroom, getting them to see what was real and what was memorex." But outside perspectives proved valuable. "I'm in the forest looking at trees. The outside experts are at a higher level seeing my forest and lots of other forests."

Indianans are free of the not-invented-here attitude, says Sue Pimentel of StandardsWork, who consulted with the Roundtable on aligning the test to the standards. "Indiana people ask for advice, listen, and then move forward understanding that they can go back later and make improvements if they need to; they don't sit and wring their hands for five years. They don't need to wait till everything's perfect. They're very open to advice. And they have fun. They're some of my favorite people to work with."

"We didn't have to have our names on it," Reed says. "You get more done if you give everybody credit."

Ongoing Work

Indianans continue to refine their standards and to work on aligning them with ISTEP, which Indiana students must pass to graduate from high school. The process promises to be as demanding as establishing the original standards.

"In math, teachers break it down into little pieces so students can understand but we're afraid we're losing

the big concepts,” Orr says. As in other states, English and math are crowding out other subjects, largely due to NCLB requirements.

“Social studies educators,” according to a state education official, “are begging for assessment. Because so much hinges on reading and math, they’re afraid that if their subject isn’t tested, it won’t be taught.”

“We superintendents realized we had to have standards,” says White. “Our concern was why so many? Can we teach all of these? We needed standards to give us some sense of uniformity across the state but how many standards and what would be significant on ISTEP?”

Indiana is now consulting with StandardsWork on developing a list of essential “power standards.”

“We’re trying to distinguish between power standards you must teach, those you should teach and those that are nice to teach if you have the time,” White says. “It’s not possible to teach everything.”

Jones agrees that the challenge now is to set priorities. “Critics of our proficiencies said they were a mile wide and an inch deep. Now we’re half a mile wide and two inches deep. It’s dramatically better than what we had before, but we have to address the mantra that all standards are equal. That’s not true. What are the big concepts, not just 50 little ideas? You’re a fourth grade teacher with four subjects plus gym and art and more than 200 standards. What do you do?”

Jones says, “The good news is that the standards are out there and teachers are teaching them. The bad news is they’re taking them too literally. But it’s better than where we were. The standards are out of the shrink wrap.”



Unlike California and Massachusetts, Indiana managed to develop great standards without the process turning acrimonious. Perhaps this is due to Indiana’s courteous culture, but is also explained by the extraordinary leadership of people such as Governor O’Bannon, Suellen Reed, Stan Jones, and Cheryl Orr. They managed to enlist the state’s teachers as part of the process while keeping control of the reins. Most importantly, Indiana officials were willing to learn from other states and outside experts, and were not

satisfied until their standards were among the best in the nation. The challenge that awaits Hoosiers is to create comparable assessments and accountability systems.

Perfecting the Wheel

Leadership matters when it comes to producing high-quality education standards. That is the first lesson that states that want to improve their own standards can take from the experiences of Massachusetts, California, and Indiana.

In Massachusetts, the venerable and affectionate Jack Rennie, a CEO, was loved by all. Without his efforts to get business, educators, and government to the table, the state’s internal conflicts may well have prevented new standards from ever being written. In California, Governor Pete Wilson pushed hard for reform and created a political environment in which it could thrive. In Indiana, the role was played by tough-minded, politically savvy Governor Frank O’Bannon, who created an atmosphere that ensured that everyone felt welcome at the table—essential in a state that puts a premium on being nice.

In the end, however, tough, hand-to-hand combatants willing to find a way to make reform work in the face of overwhelming odds must enter the fray. Had it not been for Bill Evers’s determination to find victory in defeat, California’s math standards would have remained touchy-feely. In Massachusetts, Sandra Stotsky fought the good fight, standing firm for English standards not warped by whole language, and then ensuring rigor in math and science standards, too.

And, of course, there’s Marion Joseph, a grandmother who saw her grandchildren being strangled by a failed curriculum and got in the face of anyone who would listen.

If strong leaders are the key to pushing standards through, an obsession with laissez-faire consensus-building guarantees that they’ll fail. In both Massachusetts and California, early attempts at reforming standards were thwarted by committees more focused on keeping parties happy than making hard decisions. John Silber played the role of committee buster in Massachusetts, getting involved with standards-based reform at the time the *Boston Globe* called the process “inclusive to the point of paralysis.”

Instead, “steered” consensus—bringing opposing parties around to accepting the importance of fact-driven, explicit standards—is important. At times it takes the subtle hand of a Jack Rennie in Massachusetts, and at others, the iron hand of a Bill Evers in California.

Silber’s decision to cut the size of the state board in half and rearrange the framework committees created a lot of tension between whole-language advocates and traditionalists in the world of English instruction—but it also broke the logjam.

Still, for all the knock-down fights that reformers had to win to achieve great standards, a key lesson is that bipartisanship is essential. When the Golden State learned in 1994 that its students were among the worst performing in the nation on reading and math NAEP scores, the public outcry forced both sides of the aisle to figure out a way to make it work.

Likewise in Indiana, as rust began creeping into the state, parents, higher-ed leaders, and even teacher union leaders had to concede that what was in place wasn’t working.

Sometimes, bipartisanship must be forged. That was Jack Rennie’s brilliance in Massachusetts. A court order to correct funding inequities could easily have led to

more money, but no more accountability. Rennie forged a coalition of the willing when no one else thought it possible. But money helped, too—the Massachusetts teacher unions got the money they wanted in return for not pushing back against standards.

Finally, what set these states apart was their willingness to accept that standards are the starting point of any serious reform. That dedication led leaders to demonstrate leadership, seek bipartisanship, fight the good fight, spend some money, and bring in expertise. States serious about reforming their education systems should look to those that succeeded in producing these standards and shouldn’t hesitate to turn to California, Massachusetts, and Indiana for help. The results—for your state and its children—are well worth the effort.



Joanne Jacobs, a freelance writer and blogger (joannejacobs.com) based in California, is the author of *Our School: The Inspiring Story of Two Teachers, One Big Idea and the Charter School That Beat the Odds* (Palgrave Macmillan, 2005), which tells the story of a San Jose charter high school that prepares Mexican-American students for college.

ALABAMA REPORT CARD

SUBJECT	2000	2006
English	A	A
U.S. History	A	A
Geography*	B	C
Math	B	B
Science	D	F
OVERALL GRADE	B-	B-

*World History for 2006

*ENGLISH—A

- *Alabama Course of Study: English Language Arts, K-12, 1999*
- *Alabama English Language Arts Course of Study—Assessment Correlation, K-11, Summer 1999*
- *Pathways for Learning—Language & Reading, 1999*
- *Alabama Direct Assessment of Writing: Annotated Student Response Packet, 5, 7, & 10, 2003*

Clarity and comprehensiveness are the hallmarks of these standards. They cover language arts and reading exceptionally well. Of special note is the attention the state gives to beginning readers, who are introduced to word identification skills and comprehension strategies, as well as fine children’s literature. Alabama also excels in its literary study standards, which outline American, British, and world literature programs for grades 9-12 and contain sample titles and recommended reading lists. One drawback: Alabama doesn’t tie its admirable literary standards to its state exit exam in reading, and one wonders—why not?

MATH—B

- *Alabama Course of Study: Mathematics, 2003*

This thorough document provides grade-level standards for K-8, as well as subject-matter standards for courses ranging from Algebra I and Geometry to advanced courses, such as Algebra III with statistics and pre-calculus. The standards are clear and they address important topics. While they overemphasize the role of technology, it is heartening that calculators are not mentioned until the ninth grade. Unfortunately, the standards do not require memorization of basic number facts, and they give too much space to probability and data analysis. A third grader, for example, is expected to determine probability before gaining a working knowledge of fractions. The attention paid to data analysis and probability comes at the expense of other, more necessary topics, thereby weakening the standards overall. Nonetheless, Alabama’s mathematics standards are solid and worthwhile.

SCIENCE—F

- *Alabama Course of Study: Science (Bulletin 2005, No. 20)*

The document is well organized, but its content is sparse. Earth and space sciences receive adequate treatment, as does chemistry; this is not so, however, with physics, which is not only insufficiently detailed but also inaccurate on occasion. The difference between transparent and translucent materials, for instance, is here said to be determined by the amount of light which passes through each. In reality, the difference between the two depends on whether or not the light is scattered as it moves through the material. Life sciences receive the worst treatment of all, as Alabama eschews science within its science standards by including a misguided political “disclaimer” that questions the validity of evolutionary theory. By casting doubt upon this basis for life science, the document effectively calls into question much of the information it goes on to present. This is not a good move, as it is one that only reminds us of the inadequacy of the state’s science standards.

*U.S. HISTORY—A

- *Alabama Course of Study: Social Studies, (Bulletin 1998, No.18)*
- *Standards and Objectives (Social Studies) for the Alabama High School Graduation Exam, (Bulletin 1998, No. 13)*
- *Today's Students, Tomorrow's Citizens: Pathways for Learning, Social Studies, no date, Alabama High School Graduation Exam Task Force*

An encouraging sign, Alabama begins its social studies course standards by plainly affirming that history and geography are “the central disciplines.” Students start their historical instruction in third grade with state history, skirting the issue of slavery (the word “slave” is never used). Standards for U.S. history become more comprehensive, however, as students age, and by fifth grade the curriculum is, according to the report’s author, “in virtually all respects, comprehensive, balanced, and coherent.” After a five-year hiatus, Alabama students take up U.S. history again in grades 10 and 11, and twelfth grade students learn about U.S. government. These curricula are strong, and they are supplemented by “a comprehensive set of activities to help teachers and students prepare for the social studies portion of the required state exam.” Alabama parents should be confident that their children have access to some of the most solid and comprehensive U.S. history standards in the nation.

WORLD HISTORY—C

- *Alabama Course of Study: Social Studies; Bulletin 2004, No. 18*

There is much detail to celebrate in this document, but not nearly enough time mandated to appreciate it all. Alabama compresses the whole of world history into two years (eighth and ninth grades). Subsequently, eighth grade students study not only Chinese and African civilization, but also the classical Greeks and Romans, the rise and fall of Islam, the rise of the Middle Ages, and the Renaissance, among other topics. The whirlwind tour continues the following year, with the Reformation, Hobbes and Locke, the commercial revolution in Europe, the French Revolution, and the revolutions in Latin America. Bravo for requiring the material, but the pace at which it’s presented is sure to undermine the state’s desire to empower students to “make logical deci-

sions” as “responsible citizens.” They’ll be too busy just trying to learn enough to get through class.

ALASKA REPORT CARD		
SUBJECT	2000	2006
English	F	D
U.S. History	F	F
Geography*	C	F
Math	D	D
Science	—	F
OVERALL GRADE	D-	F
*World History for 2006		

*ENGLISH—D

- *Reading & Writing Grade Level Expectations, 3-10, March 2004*
- *Alaska Benchmark Examination Booklet, June 1999*
- *Teacher's Guide to the Alaska Benchmark Examination, 3, 6, & 8, June 1999*
- *Benchmark Examination Test Item Map, 3, 6, & 8, June 1999*
- *Benchmark Practice Tests, 3, 6, & 8, June 1999*
- *Reading & Writing Performance Standards, Jan. 20, 1999*
- *Common Ground Suggested Literature, created between 1988-1991*
- *HSGQE Test Blueprint*

An army of documents were reviewed. Portions of the 2004 Grade Level Expectations are solid, but, on the whole, Alaska’s English standards need lots of improvement. There are too many reading subcategories of different importance and relevance. Some, such as “colonialism” or “identity formation,” seem better suited to history or sociology than English. Conspicuously missing are literary categories, which would, says the report’s author, “outline substantive content of the secondary school English curriculum.” Further, the high school standards that address literature content are too cursory to demand any real intellectual effort or contribute to deeper understanding and appreciation of the texts.

*MATH—D

- *Alaska Content Standards, 1999*
- *Alaska Performance Standards, January 20, 1999*
- *Math Grade Level Expectations for Grades 3-10, March 16, 2004*

Alaska's math standards have several problems. Although elementary students are wisely expected to memorize basic number facts, calculators are introduced into the curriculum in the third grade, which is far too early. The upper grades are prone to an overemphasis on the use of manipulatives—those are the pattern blocks, trays of tiles and cubes, and collections of geoboards, tangrams, counters, and such, favored by many teachers. Abstraction is a major part of mathematics and a curriculum that relies on manipulatives to demonstrate concepts to ninth graders “works against sound mathematical content and instruction.” In the upper grades, “algebra and geometry standards are thin and some of the writing here is so poor that meaning is obscured. ... Probability and statistics are overemphasized at all grade levels.” In the standards devoted to patterns—another overemphasized concept—there is little connection to mathematics.

*SCIENCE—F

- *Science Content Standard (A-D), 2000*
- *Alaska Department of Education & Development Framework Project, 2000*

These documents (new standards were being written at the time of our review) offer up little to nothing of scientific or academic value. They are, in a word, awful. Reviewers note that throughout Alaska's standards, “political correctness dominates content and manner of instruction. The impression is given of more seriousness about native Alaskan cultures than about the whole of natural science.” The life sciences are treated in a trite manner and “the ‘Forces of Nature’ section has nothing to do with the forces of nature.” There is a lack of substance and specificity throughout; and entire subject areas are explained through overweening generalities. That Alaska's science standards could be any worse is highly dubious.

*U.S. HISTORY—F

- *Content Standards for Alaska Students in History, Government, and Citizenship, 2002, Alaska Department of Education and Early Development*

In Alaska's U.S. history standards, “the rhetoric soars, but the substance is missing.” Succumbing to an overemphasis on student-directed, activity-based learning, the document provides virtually no specific, content-based guidelines. In short, these standards are useless, because they provide no guidelines, roadmaps, or curricula for U.S. history education.

*WORLD HISTORY—F

- *Alaska Content Standards: History*

A simple checklist of names and dates would be an improvement over the fatuous document Alaska provides its history educators: a list of concepts as broad and un-navigable as the state's vast wilderness. These standards are an utter failure. Students are asked only to comprehend several broad concepts, such as “the consequences of peace and violent conflict to societies and their cultures.” How they are to do this is anybody's guess. An astute teacher in Juneau may understand this as an invitation to guide students through the intricacies of the two world wars or a teacher in Anchorage may hand out a simple worksheet on the differences between Athens and Sparta in ancient Greece. But, like the Northern Lights in the middle of summer, a useful guide to world history is nowhere to be found.

ARIZONA REPORT CARD

SUBJECT	2000	2006
English	B	B
U.S. History	A	A
Geography*	B	B
Math	B	C
Science	A	B
OVERALL GRADE	B+	B

*World History for 2006

*ENGLISH—B

- *Standards-based Teaching and Learning: Language Arts Standards*
- *Reading Standards Articulated by Grade Level, K-12, August 2003*

The Grand Canyon State’s English standards are, overall, quite good. Except for the strategies and processes objectives, which are vague, reviewers found that the standards are “clear and measurable and show increasing intellectual demand over the grades.” Especially on target are Arizona’s “Historical and Cultural Aspects of Literature” guidelines, which focus on the texts and not on their contexts. Several areas could use some tinkering, though. For one, standards for the history of the English language do not “provide titles or authors as examples that would illustrate the growth that should be expected through the elementary and secondary grades.” However, Arizona is on the verge of attaining truly formidable English guidelines. A few additions and more specificity will bring them thus.

MATHEMATICS —C

- *Arizona Academic Content Standards, March 2003*

Arizona is on the right track with its Academic Content Standards, the report’s author writes, “but there are shortcomings in content coverage and logical development that drag down its grade.” Many standards includ-

ed in the state’s “Concepts” section are repetitive and do not focus on content. Pupils from Kindergarten to fifth grade are asked to color maps and pictures; time that could be better spent on other things. Certain concepts and tasks (e.g., finding maxima and minima of functions) are introduced before students have been taught the prerequisite knowledge. Likewise, decimal arithmetic is introduced before fractions, increasing the likelihood that students “will utilize rote procedures without understanding” their meaning. Many standards in the “Structure and Logic” section are overbroad.

SCIENCE—B

- *Arizona Science Standard Articulated by Grade Level, Updated March 10, 2005*

Overall, these grade-level standards are clear and cover substantial content. Among the drawbacks: chemistry content is sparse at the K-8 level and, for high school, some important material—which could easily fill two or more chapters in a textbook—is lumped together. The documents occasionally put the cart before the horse, as when they present “Concept 3, Energy and Magnetism,” without ever defining “energy.” Nonetheless, these standards remain more than adequate.

U.S. HISTORY—A

- *Arizona Standards: Social Studies Standards, 2000, Arizona Department of Education*

These standards begin solidly, providing youngsters with a good foundation on which to build a study of history. They stress Western ideas and culture as the basis for U.S. history, but also note the country’s diversity and the importance of contributions from other civilizations and nations. They include classroom activities, such as using artifacts to identify the similarities and differences of life in the past. By fifth grade, students are given an overview of American history from Discovery to the Revolution, and between sixth and eighth grades they focus more closely on the events between the Revolution and Reconstruction. When these standards suffer, it is from lack of content. They omit important events such as the temperance movement, the New South, the rise of the Know Nothings,

and the public schools reform movement. But overall, Arizona does a marvelous job with sequential development from Kindergarten to twelfth grade, presenting history without political bias and, despite its standards' content omissions, presenting a good overview of the historical events that shaped the United States.

WORLD HISTORY—B

- *Arizona Standards: Social Studies Standards, 2000, Arizona Department of Education*

Arizona recognizes that most U.S. institutions have their origins in Europe, so the state makes Western civilization a central feature of its world history standards. And it does so very well. Students begin their global trek in the sixth grade, where they study Greece and Rome, as well as key figures such as Socrates and Julius Caesar. In high school, post-Renaissance history is covered with sufficient depth and rigor, as is the industrial revolution, to provide students with more than a timeline appreciation of the past. The standards don't limit themselves to the West, however, as Latin America and each of the world's major religious traditions receive in-depth attention. The only flaws—minor in an otherwise first-rate document—are the standards' failure to adequately cover the rise of Islam and the Middle Ages.

ARKANSAS REPORT CARD		
SUBJECT	2000	2006
English	D	C
U.S. History	F	F
Geography*	F	F
Math	D	F
Science	F	D
OVERALL GRADE	F	D-
*World History for 2006		

ENGLISH—C

- *K–12 English Language Arts Curriculum Framework, revised 2003; Released Items for Grades 4, 6, 8, & 11, 2003*

Arkansas's Governor Mike Huckabee, once quite obese, recently lost more than 100 pounds. His state's English standards should do the same. Though clearly written, and presented grade by grade, the document is so large that English teachers who attempt to follow it will assuredly be overwhelmed. And trying to include too much within these standards is just one problem. Too many of them are immeasurable, and too many rely on process, i.e., they contain no academic content. And redundancy is ubiquitous; a reader—or teacher—would be hard pressed to discern a change in difficulty from grades 9 to 12. Arkansas could improve these standards by including some content-specific standards that identify authors, their works, and literary traditions that reflect classical traditions. And put this document on a diet!

*MATHEMATICS —F

- *Arkansas Course of Study: Mathematics, 2003*
- *Curriculum Frameworks: Mathematics, 1998*
- *Sample Curriculum Models, K-8, 1998*
- *Sample Grade Level Benchmarks, 1-4, 1998*
- *Sample Grade Level Benchmarks, 5-8, 1999*

Arkansas' math standards are as about as pretty as a razorback with a cold. The state has students using calculators as early as Kindergarten and manipulatives as late as the eighth grade: far too early and far too late to give students a solid grasp of important concepts such as comprehending basic number facts or learning to deal with abstract concepts. Probability and statistics are overemphasized at every level. Coverage of algebra is spotty, and there are even a few glaring errors, such as one standard that asks fifth graders to find the perimeter of two and three dimensional objects (they don't have "perimeters," they have "surface areas"). Meanwhile, students are elsewhere asked to accomplish tasks that no K–12 student can do, such as demonstrating the irrationality of pi. But that's OK—we suspect that this standard amounts, as many of these standards do, to pushing buttons on a calculator.

*SCIENCE—D

- *Science Curriculum Framework, 1999*
(*New standards were due out in January 2006*)

The Arkansas science standards come in two main portions: the 1999 Curriculum Framework, and the K–4 and 5–8 Benchmarks. Within the framework are three strands (physical, life, and Earth/space sciences), and within the strands are standards and learning expectations. Unfortunately, most of these standards and expectations are vague. A fact not helped by the authors' poor word choice. In physical science, for example, teachers are told to "Introduce the electromagnetic spectrum" and students are to "Investigate sound waves and gamma rays." [Emphasis added.] Even those most familiar with the intricacies of etiquette would stumble while attempting to "introduce" an electromagnetic spectrum. And for what crime, exactly, should we "investigate" the waves and rays? In a word: unclear. The life sciences also receive too little attention and grade progression in certain scientific subject areas is often inadequate. Arkansas should send these standards back to the lab.

*U.S. HISTORY—F

- *Arkansas Social Studies Curriculum Frameworks, 2000, Arkansas Department of Education*

Readers learn in the introduction to Arkansas's history standards that the documents are "intended to be broad and more general than specific," so that teachers can fit their respective content into the overall strands and concepts. The standards take their "broadness" mission seriously; they contain virtually no history content. Instead, U.S. history is presented through nondescript strands, such as "Time, Continuity, and Change," and "People, Places, and Environments." The outline for grades 5–8 asks students to "explain the cause and effect of events throughout history," but does not require the study of any specific historical event. These standards are empty, and their lack of substance guarantees them a spot among the nation's worst.

*WORLD HISTORY—F

- *Arkansas Social Studies Curriculum Frameworks, 2000, Arkansas Department of Education*

Arkansas provides those teaching world history "a broad conceptual framework" that is long on ambition and short on details. Objectives such as "evaluate major turning points in history" leave a teacher to wonder: Does that include the birth of Christ? The fall of the Soviet Union? Both? Neither? No answers will be found here. Nor is there guidance on how to cover the topic "probe the interdependencies of nations." The state provides a few details in its supplemental section, but it's too little too late. Natural State students are likely to leave high school with no factual understanding of world history.

CALIFORNIA REPORT CARD

SUBJECT	2000	2006
English	A	A
U.S. History	A	A
Geography*	C	A
Math	A	A
Science	A	A
OVERALL GRADE	A-	A

*World History for 2006

ENGLISH—A

- *English-Language Development Standards for California Public Schools, K-12, July 1999*
- *English-Language Arts Content Standards for California Public Schools, K-12, December 1997*
- *Reading/Language Arts Framework for California Public Schools, K-12, 1999*
- *English-Language Development Standards for California Public Schools, K-12, July 1999*
- *California Standards Test Teacher Guide for the California Writing Standards Tests at Grades 4 and 7, May 2002*
- *Addendum to the May 2002 Teacher Guide for the California Writing Standards Tests at Grades 4 and 7, August 2003*
- *STAR California Standards Test and NCLB Blueprints for English Language Arts, 2-11, October 2002*

The Golden State puts forth golden English standards. Their balance and depth is impressive. The standards are clear, they are specific, they are measurable, and they address all areas fully. If there is a readily apparent flaw, it is that California includes too much information in the lower levels! Impressively, these English standards contain literature recommendations and note specific authors in their recommended reading lists, although it would be better if the documents narrowed the list to specific literary traditions and required study of American literature.

*MATHEMATICS —A

- *Mathematics Framework for California Public Schools, 2000 Revised Edition*

If any state has math standards right, it's California. The Golden State's standards avoid almost all the pitfalls of other states: they call for the use of calculators at the right time and in the right way (the standards do not "allow the use of calculators all through Kindergarten to grade eleven") and build students' skills in a logical progression that emphasizes computation, problem-solving, and mathematical reasoning all the way through. Elementary students are directed to memorize basic number facts and develop facility with addition and subtraction. High schoolers are given solid coverage of Algebra, Algebra II, and Geometry, and advanced courses in high school would challenge many college students. Nothing's perfect, and California does sometimes have a tendency to veer too close to social science in its standards, while probability gets a bit too much play throughout. But all in all, the state has a top-notch blueprint for mathematical excellence.

SCIENCE—A

- *Science Content Standards for California Public Schools and Science, 1998*
- *Framework for California Public Schools, 2004*

The home of Silicon Valley gives us a delightful pair of standards that are both brief and comprehensive. They use plain language and, unlike many of their peers, they avoid errors and ambiguity. Biology is detailed, and the seventh-grade standards sensibly integrate Earth sciences with evolution. When applicable, physical systems are presented in the context of living systems; e.g., they explore properties of light in relationship to the human eye. A fine job, all around.

*U.S. HISTORY—A

- *History-Social Science Framework for California Public Schools, 1997*
- *History-Social Science Content Standards for California Public Schools, 2000, California Department of Education and California State Board of Education*

California’s history standards start strong by providing Kindergarteners with an initial understanding of the subject, teaching them “how people lived in earlier times and how their lives would be different today.” The state builds sequentially on this foundation until fifth grade when it presents a definitive timeline of events, starting with pre-Columbian history and working up to 1850. American history resumes in eighth grade, and U.S. history is presented in eleventh—and at each level, the standards offer a cornucopia of information. These documents have some flaws and political history is often given short shrift. “Jacksonian Democracy,” for instance, is presented outside a historical context and no mention is made of the emergence of American political parties. On balance, though, California’s standards are excellent and should serve as a model for other states.

WORLD HISTORY—A

- History-Social Science Content Standards, 2005

A “story well told” is what California believes history should be, and its standards tell the world’s story very well. In a document thankfully free of bullet points, charts, grids, and rubrics, the state deftly guides educators through the material from world religions to modern world politics, and it never slips in providing in-depth information. Students are asked not just to understand Islam, for example, but “Islam’s continuity with Judaism and Christianity in its proclamation of belief in one God, [and] its belief that God’s will has been given final expression in the Koran.” If there’s a flaw, it’s that teachers may not read the longish 200-page document. If they don’t, it isn’t because the text is a bore. This document is the gold standard, and those looking for good standards to model may well shout “Eureka!” when they read it.

COLORADO REPORT CARD		
SUBJECT	2000	2006
English	F	C
U.S. History	D	D
Geography*	A	D
Math	D	D
Science	D	B
OVERALL GRADE	D+	C-
*World History for 2006		

ENGLISH—C

- Colorado Model Content for Reading and Writing: Suggested Grade Level Expectations, K-12, February 9, 2000
- Reading & Writing Assessment Frameworks, 3-10

Colorado’s documents are short, to the point, and quite readable. English language conventions, writing, and research are all well covered and easily measured. Yet serious problems exist in the realms of reading and literary study. Most egregious is the standards’ omission of historically or culturally significant texts and authors—any real examination of classical, British, and American literary tradition is conspicuously absent. Similarly weak is the document’s vocabulary strand, which would benefit from expansion.

*MATHEMATICS —D

- Colorado Model Content Standards for Mathematics, February 7, 2000

Colorado has a hang-up when it comes to math, and that’s the word “demonstrate.” It’s used 122 in these standards, in ways that often don’t make any sense, such as the directive to “[p]ictorially demonstrate the meaning of commonly used irrational numbers.” We have a bad feeling that means drawing pictures, a time-wasting activity that would be in keeping with a set of standards that directs fourth-grade students to collect “objects and pictures” to represent whole numbers. Fractions are

introduced far too late, with a focus on using concrete materials and manipulatives that makes one suspect Colorado thinks its students can't handle numbers. (The state doesn't get to requiring hand calculations of the four operations of arithmetic using fractions until the seventh grade, several years too late.) Though there is a good focus on memorizing the basic number facts at an early age, that doesn't outweigh the fact that Colorado too often has its students drawing pictures and collecting objects, rather than building key math skills.

SCIENCE—B

- *Colorado Model Content Standards for Science, 1995 (Colorado is revising its standards; a new document is scheduled for release September 2006)*

The Centennial State provides its schools six science standards; three are about content and three about process. Though the two groups are relatively well-integrated, a reader must look for something called “rationale”—in each of the six standards—to find actual content detail. Within the biology (ecology) section are some 20 standards related to environmental science; while each is worthy of inclusion, they suffer from too much qualitative information and not enough quantitative analysis. Physical science avoids blatant errors, but its standards leave out some important components. Life science is more comprehensive. Overall, Colorado presents its students with a worthwhile document.

U.S. HISTORY—D

- *Colorado Model Content Standards for History, 1995*
- *Suggested Grade Level Expectations for History, 2001, Colorado Department of Education*

These documents suffer from a condition we might call “creeping vagueness.” Because the standards don't distinguish between historical inquiry and historical fact, students in Colorado may know, for instance, that “religious and philosophical ideas have been powerful forces throughout history,” but have no clue about the topics or meanings of those ideas. When content is offered, the standards' authors are timid about making even the most basic historical judgments. Students in K-4 are asked to identify “historical figures from diverse back-

grounds in the United States who have advanced the rights of individuals and promoted the common good,” but not offered much advice on who exactly those figures might be. Besides, a far better exercise here would be to identify those individuals whose contributions have been most important and influential. In sum, the standards are weak tea, in need of some content infusion.

WORLD HISTORY—D

- *Colorado Model Content Standards for History, 1995*

Colorado's world history standards have some good things going for them, such as a passable treatment of economic, cultural, artistic, and religious topics. Had they only treated the rest of world history as well. Instead, when it comes to empire building, war and statecraft, or even literature, teachers face a rocky mountain as they try to “reconstruct the time structure and identify connections found in historical narrative,” without any guidance as to what specific events and characters might be part of that narrative. These vagaries are most jarring in the standards' approach to some of the twentieth century's most important events. World Wars I and II, the Vietnam War, and the Russian invasion of Afghanistan, for example, are oddly crammed into an exercise analyzing “the causes and events of major wars of the contemporary era and the resulting changes in the distribution of power.” Surely the world's wars deserve better attention—as does the word “contemporary.” The documents aren't hopeless, but they do require more than minor surgery.

CONNECTICUT REPORT CARD

SUBJECT	2000	2006
English	D	F
U.S. History	D	D
Geography*	D	D
Math	D	F
Science	B	C
OVERALL GRADE	D+	D-

*World History for 2006

*ENGLISH—F

- *Language Arts Framework, K-12, 2003*
- *Connecticut Mastery Test, Third Generation, Language Arts Handbook, 2001*
- *Connecticut Academic Performance Test, Second Generation, Reading and Writing Across the Disciplines, 2001*
- *Connecticut's Blueprint for Reading Achievement: The Report of the Early Reading Success Panel, K-3, 2000*
- *A Guide to Curriculum Development: Purposes, Practices, Procedures*
- *Suggested Resources for Reading Middle/High School*

Connecticut could get some points for arranging its English standards in a reasonably coherent format—reading and responding, exploring and responding to literature, communicating with others (writing, speaking, and research), and English language conventions. Yet, these standards suffer from systemic vagueness. For example, one standard asks students to “discuss, analyze, and evaluate how characters deal with the diversity of human experience and conflict.” Another suggests that students “maintain a multimedia portfolio that provides opportunities for reflection and dialogue regarding creative processes.” These are empty words, unwelcome anywhere, but are particularly insufferable in English standards. Vocabulary development is ignored, and the state fails to outline a core literature for its high school

students. Connecticut recently updated its English standards and, from our perspective, managed to make them worse. Will subsequent efforts bring them around?

*MATHEMATICS—F

- *Connecticut Framework: K-12 Curricular Goals and Standards—Mathematics, 1998*
- *Common Core of Learning—Mathematics, 1998*
- *Goals 2000, Mathematics Curriculum—PreK through Grade 12*

The “C” in Connecticut must stand for “constructivism”—or maybe it’s “content-lite?” Either way, the Constitution State gets not a C but an F for its math standards, which are a mishmash of trendiness and vacuity. Connecticut places on its students the burden of “constructing” the number system, eschewing memorization and mathematical reasoning for a reliance on technology, manipulatives, and “real life experiences.” When the standards do get to the task of defining skills to be learned, such as the K–4 directive to “develop proficiency with basic addition,” the state gives teachers and students little guidance as to how this amorphous goal is to be realized, and relies on calculator use throughout the grades as a crutch. And while long on classroom enrichment activities, these standards give little sense of how disconnected exercises are to be integrated into a whole curriculum that develops skills logically and over time.

*SCIENCE—C

- *Core Science Curriculum Framework, January 2005 (Connecticut's standards were updated in September 2005, too late for this review)*

These standards take much from the National Science Education Standards and the AAAS Project 2061 Benchmarks—the document is broken into categories Pre-K–2, 3–5, 6–8, and 9–10. The state does best in physical science, where the standards are free of errors and benefit from solid structure. Yet, even in this realm, Connecticut misses important topics, such as conservation of momentum, waves, modern physics, and fluid mechanics. Beyond physical science, the document often shows little or no relationship between overarching themes, standards, and expected performance. For example, under the Changing Earth theme the document asks, “How do materials cycle

through the Earth's systems?" Students are then expected to sort different soils by properties and to classify different soils by their abilities to retain water and support plant growth. There is little direct connection between each of these vague components. Life science is not presented thoroughly, and evolution doesn't come on the radar until high school. A middling attempt, at best.

*U.S. HISTORY—D

- *Connecticut Framework: K-12 Curricular Goals and Standards—History, 1998*

One finds it odd, and disheartening, that a state so rich in U.S. history would put forth offerings as bland as these. Facts are in short supply here; rhetoric soars. For example, the standards require students to “demonstrate knowledge of the structure of United States and world history to understand life and events in the past and how they relate to one’s own life experience.” But as the reviewers point out, Connecticut’s “framework provides no specific content to suggest, for example, how students would relate seventeenth-century indentured servitude or slavery to their own life experience.” The standards never adequately explain what teachers should teach and students should learn. And Connecticut’s U.S. history grade reflects that abdication of duty.

*WORLD HISTORY—D

- *Connecticut Framework: K-12 Curricular Goals and Standards—History, 1998*

Connecticut’s standards frame the study of world history quite well. They’re chronologically sound, taking students from pastoral civilizations to Greece and Rome, then through the three ages they call “expanding zones of change [300-1000], intensified zones of interactions [1000-1500],” and “emergence of the first global age [1450-1770].” The standards conclude with Europe and the twentieth century. But sorely lacking are the facts that hold the framework together. Consequently, when students are asked to “describe, explain, and analyze political, economic, and social consequences that came about as the resolution of a conflict,” they have no idea which conflicts are meant. Put some historical meat on the standards’ bones and the state has a good document.

DELAWARE REPORT CARD		
SUBJECT	2000	2006
English	C	C
U.S. History	D	B
Geography*	C	D
Math	C	F
Science	A	C
OVERALL GRADE	C+	C-
*World History for 2006		

*ENGLISH—C

- *State of Delaware English Language Arts Curriculum Framework Content Standards, Volume One, K-10, June 1995*
- *English Language Arts Standard One End of Cluster Expectations and Performance Indicators, K-12, 1998*
- *Teacher’s Desk Reference K-5, January 1998;*
- *Teacher’s Desk Reference 6-8, May 1998*
- *Writing Companions for the Performance Indicators and the Textual Features, K-12*
- *Configuration of the Delaware Student Testing Program’s Writing Test; Delaware Student Testing Program—General Rubric for Writing All Grades*
- *Delaware Student Testing Program—Sample Test Items*

For the most part, Delaware gets it right. It has crafted English standards that are clear, avoid vague language, and show an increase in intellectual challenge as the grades progress. A major flaw exists, however: literary study is given short shrift. Not only does Delaware fail to give specifics about literary theory, but the state never mentions American literature by name. Teachers searching for guidance for upper-level reading lists, or seeking to develop strong curricula based on authors and works of significance and merit, are on their own—these standards offer virtually no guidance. If not for the comprehensiveness with which Delaware tackled other important portions of its English standards, the state’s grade would be much lower than the middling C it received.

*MATHEMATICS —F

- *Mathematics Curriculum Framework, 1995*

Delaware did a bad, bad thing when it jettisoned a 1996 revision to its Mathematics Curriculum Framework. In doing so it gutted these standards of much of their content. What remains is more a statement of aspirations than a set of standards per se, a collection of lofty goals with little of the specificity that makes a set of standards a useful guide for teaching and learning. Exhortations such as “Identify patterns for explaining the concepts of computation” make little sense, while the state undermines mathematical reasoning by allowing students to use calculators throughout the curriculum, even to accomplish such fundamental tasks as long division. The educational jargon becomes unbearable in the eleventh and twelfth grades, where the standards proclaim that, “An expanded symbol system extends and refines the student’s ability to express quantitative ideas concisely”—a statement whose meaning, much less its relevance to instruction, is almost unknowable.

*SCIENCE—C

- *State of Delaware Science Curriculum Framework, Volume 1, June 1995 (Delaware’s standards are being revised for release in 2007)*

The Blue Hen State organizes its science standards document around eight themes. Under each are numbered subsidiaries—the actual standards—accompanied by teaching suggestions and classroom activities. The first theme, “Nature and Application of Science and Technology,” is strong on content, but it suffers from the inclusion of insertions that may have political and social merit, yet are of little of scientific value. For example: “Explore the historical underrepresentation of women and minorities in many fields of science and engineering.” The strongest portion of Delaware’s standards covers life sciences. It is comprehensive without being too long and contains genuinely valuable laboratory activities. Physical science is not as good, and the physics section is rife with errors and impracticalities. In grades 6–8, students are asked to “Give examples which show how the relationships among force, mass, and acceleration are important in common situations (e.g., hammering a nail, comparing rates at which a car and a heavily loaded truck can pull away from a stop

sign).” These are poor examples—hammering a nail is friction dominated, while a stop-sign getaway depends on power-to-weight ratios. Were Delaware a bit more conscientious, these standards could be better than passable.

*U.S. HISTORY—B

- *Social Studies Standards, End of Grade Cluster Benchmarks, Performance Indicators, Grades K-5, 6-8, 9-12, 2001, Department of Education*

This document does a good job, overall, of establishing meaningful and measurable criteria for students and teachers of U.S. history. Students learn about Delaware history in third grade and are introduced to U.S. history in grades 4 and 5. That span is repeated in grades 8–11. There are, however, some major omissions. The “Three Worlds Meet” section, for example, highlights relations between “European settlers and enslaved Africans,” but it nowhere mentions how those Africans became enslaved. The standards also do an inadequate job of explaining how democratic institutions grew in colonial America. Several topics—such as the Articles of Confederation—are also conspicuously absent. Nonetheless, Delaware’s standards are redeemed by their emphasis on accountability and by making progress toward “rigorous subject content.”

*WORLD HISTORY—D

- *Social Students Content Standards, History, 2000*

Delaware’s world history standards are organized and well chosen, for the most part. When it comes to content, however, they could use more detail. The three-line outline for World War II, for example, asks teachers to teach the war’s “multiple consequences” and its “global scope and human cost,” giving them little guidance. And for high school students, world history doesn’t even begin until 1500 C.E. Sure, ancient history is taught in the early school years, but for high school students launching into the Reformation and Renaissance, what they learned in elementary school is ancient history! If the First State entertains any dreams of leading the rest of the union with its world history standards, it needs to inject a massive dose of historical content into its otherwise good standards.

DISTRICT OF COLUMBIA REPORT CARD

SUBJECT	2000	2006
English	A	C
U.S. History	F	F
Geography*	A	D
Math	B	D
Science	—	C
OVERALL GRADE	B-	D+

*World History for 2006

*ENGLISH—C

- *Reviewed: Reading/English Language Arts, K-12*
- *Performance Standards, Essential Skills, and Technology*
- *Integration*

The District presents its English standards grade by grade and does a good job hitting most major areas, especially those pertaining to English language arts and reading. Unfortunately, although knowledge of sound/letter relationships is covered, it does not seem that it will be taught systematically and applied as a word identification skill independent of context. This is certainly problematic. Further, the document contains no indication that works of literature will be selected for study on the basis of their merit or their historical and cultural significance. American literature—key authors and works—are absent from the standards' pages. Such important information does not deserve to be overlooked.

*MATHEMATICS—D

- *Standards for each of the grades Pre-K to 8, and for Algebra I, Algebra II, Geometry, Pre-Calculus, and Advanced Placement Calculus*
- *Standards for Pre-K to 8 (strands): Number and Operation, Patterns, Functions and Algebra, Data Analysis, Statistics and Probability, Geometry and Spatial Sense, and Measurement*

The District of Columbia has done something almost unheard of in the world of standards—it adopted the excellent Massachusetts standards for Algebra I, figuring there was no use in reinventing the wheel. The nation's capital should go further and replace its entire set of math standards, which are poor overall. The lower-grade standards require whole and rational number computation, as well as memorization of basic number facts, an excellent start, but there is no mention of standard algorithms, and the standards leave too much room for calculator use in the lower grades. Except for the Algebra I standards, the upper grades seem to require less of students than the elementary standards (the geometry standards, for example, are startlingly weak)—a serious shortcoming since it runs the risk of jeopardizing hard-won gains from the lower grades. And in several places, the “Performance Standards,” meant to guide testing, call for mastery of material not covered in the “Content Standards,” which are meant to guide classroom instruction. D.C.'s heart is clearly in the right place, but it needs to edit and integrate its standards, and beef up the content.

*SCIENCE—C

- *DC: Draft Standards, Science, Fall 1999 (The standards reviewed were in draft form. Thus, the following may not apply to final documents.)*

The District has five expansive standards: Science Inquiry, Life Science, Physical Science, Earth and Space Science, and “Systems” (a thematic treatment of physical science within structures of increasing complexity). Overall, the document is decidedly average, with some subjects (life sciences) receiving good treatment, and others (Earth science and chemistry) getting short shrift. Add to this quality disparity the fact that D.C.'s standards are far, far too long. Errors occur, as does foolishness. Students are asked to “understand the importance of the Earth's location in regards to the sun,” for example. In regards to editing, the District ought to be more precise. This document contains useful content (considering the amount of pages, it would be astounding were this not the case), but its effectiveness is undermined by sloppiness of presentation and writing. Before this draft sheds its cocoon, more revisions are surely in order.

*U.S. HISTORY—F

- *Standards for Teaching and Learning: Social Studies, Grades Pre-K to 12*
- *District of Columbia Performance Descriptors, Grades 8 and 11*
- *United States History, Grade 11, District of Columbia Public Schools, 2000*

It is unfortunate that D.C. students, many of whom attend school within walking distance of some of the nation's great historical monuments, are saddled with these measly standards. The documents are elaborate, but, despite their impressive breadth, their content remains shallow. There is no sequential development, because no time period is ever revisited in more than one grade. Thus, D.C.'s students may have, as high school seniors, only a third-grade understanding of their city's history and a fifth-grade understanding of the American Revolution. The standards are also heavy on "Content Standards" and short on factual content. These documents need revamping, and they require a shift away from social studies skills and toward substantive material.

WORLD HISTORY—D

- *Standards for Teaching and Learning: Social Studies*

Washington, D.C.'s world history standards are unique in their focus on the effects of maritime power and international trade on world history. African history, largely ignored by most states, receives excellent treatment as well. That's about all the good that can be said about these standards, which pay only cursory attention to important historical periods and ideas, expecting students to interpret "major events and turning points" and "key dates, events, places, and people" without providing any details. They omit key places, such as Egypt, Mesopotamia, and the Indus Valley, even as they purport to emphasize "the Eastern Hemisphere (Africa, Asia, Europe) from human origins through early and classical ancient civilizations." As long as D.C. prepares its students to be citizens in this shoddy manner, perhaps it is best that they remain without representation.

FLORIDA REPORT CARD

SUBJECT	2000	2006
English	B	C
U.S. History	C	D
Geography*	B	F
Math	D	F
Science	F	F
OVERALL GRADE	C-	D-

*World History for 2006

ENGLISH—C

- *Reviewed: Language Arts Standards, PreK -12*
- *Grade Level Expectations for K-8, 1998-1999*
- *Florida Comprehensive Assessment Test (FCAT), Reading, 3-10, January 2001*
- *FCAT Reading and Writing Rubrics, 4, 8, & 10, 2003*
- *What every teacher should know about FCAT*
- *FCAT Sample Test Books and Answer Keys, 3-10, 2003-2004*
- *Lessons Learned-FCAT, Sunshine State Standards and Instructional Implications, January 2002*

Florida could help its state English standards by including some real information about important literary works and their authors. As it now stands, the Sunshine State omits important classic, nineteenth century, and twentieth century works and their writers. Other material is given fair to good treatment in the standards, but until more attention is paid to literature—indeed, the subject which should compose the bulk of the English curricula for students in upper middle school and high school grades—Florida's standards will never crest above the not-so-gentlemanly C they now earn.

MATHEMATICS —F

- *Florida Course Descriptions Grades 6-8 and 6-12, 1997*
- *Grade Level Expectations for the Sunshine State Standards, June 1999*

Florida’s math standards seem as if they were written by different committees who never spoke to each other in the process. How else to explain the strange mix of strong coverage and glaring deficiencies? Many topics in the early grades are nicely developed, including place value and the basic algorithms, with an emphasis on memorization. But fractions are poorly covered and an early emphasis on calculator use increases in the upper grades. Throughout, there is an almost obsessive coverage of patterns and statistics that crowds out more serious mathematical topics, such as irrational numbers or quadratic polynomials. And the curricula for advanced courses, such as Algebra and Geometry, are a hodgepodge of topics and emphases with little coherent structure to them. Florida should go back to the drawing board, building on its strengths while squeezing out the distractions and filling in the blanks.

SCIENCE—F

- *Sunshine State Standards, Grade Level Expectations: Science, 1999*

Florida’s standards are well organized. That may be because there is precious little content. Physics is the subject handled with the most acumen, but even it suffers from errors. According to the document, second grade students should know that “a thermometer measures the amount of heat absorbed by an object.” If a student does know this, he or she is wrong—thermometers measure changes in temperature, not the amount of heat absorbed. Vagueness courses throughout. The informed Florida high schooler, for example, “understands the relationship between events on Earth and the movements of the Earth, its moon, the other planets, and the sun.” Further, no mention is made of evolution. At the time of review, these standards were being revised. Good thing.

U.S. HISTORY—D

- *Florida Curriculum Framework: Social Studies, PreK-12 Sunshine State Standards and Instructional Practice, 1996*
- *Grade Level Expectations from the Sunshine State Standards, 1999, Florida Department of Education*

These documents are generally confusing and weighed down by jargon. They contain some good content, but it is lost in a framework of strands and benchmarks that fail to clearly specify what students should know when. The standards could provide Florida’s U.S. history teachers with substantive classroom guidance, but their convoluted organization and their lack of grade-level breakdowns or sequencing timelines seriously damages their usefulness. With little coherence, these standards are rendered far less useful than they might be otherwise. The state’s U.S. history students deserve better organized and more specific guidelines.

WORLD HISTORY—F

- *Sunshine State Standards: Social Studies, 1996*

The Sunshine State’s world history standards are anything but illuminating. Florida seems to believe that all of world history, from “the beginning of time” to “Western and Eastern civilizations since the Renaissance,” can be reduced to 21 bullet points on a single page. The list hits important cultures, events, and themes, but is unable to address any of them with any depth. Given the lack of historical material in the standards, it is not surprising that Florida makes no attempt to specify what should be learned at which grades in the high school years. The only good thing that can be said about the Florida world history standards is that they’re up for review and revision in 2007. Sunshine State youngsters: keep your fingers crossed.

GEORGIA REPORT CARD

SUBJECT	2000	2006
English	B	B
U.S. History	C	B
Geography*	D	A
Math	B	B
Science	F	B
OVERALL GRADE	C-	B+

*World History for 2006

*ENGLISH—B

- *Georgia Criterion-Referenced Competency Tests (CRCT) Content Descriptions: English/Language Arts;*
- *Georgia Criterion-Referenced Competency Tests (CRCT) Content Descriptions: Reading; Language Arts Curriculum—Kindergarten, (DRAFT) Jan. 10, 2004*
- *Language Arts Curriculum—Grade 4–10, (DRAFT) January 2004*
- *American Literature and Composition—High School, (DRAFT) Jan. 10, 2004*
- *British Literature and Composition—High School, (DRAFT) Jan. 7, 2004;*
- *World Literature—High School, (DRAFT) Jan. 20, 2004*
- *QCC Language Arts Standards and Resources, K–12*

Georgia outlines its English standards by grade level from 4–10, and in high school the state delineates expectations by course. Reading, research, and vocabulary development are handled with particular acumen, and the documents' organization is clear and well planned. Commendably, students are expected to read a certain number of books each year, and mostly appropriate reading lists are provided for each grade at the secondary level. The standards' downfall, while not a damning one, comes because there is no specificity about the content of recommended works—no examination of what makes a certain book or author culturally insightful; representative of a particular form, time period, or style; or timeless. Further, the reading lists are merely suggested. Such language leaves test makers and curriculum developers, for example, in the lurch because it does not pro-

vide a definite canon, nor does it give hints about the overarching themes and literary ideas students should take away from each grade or level. A little tweaking on this front and the Peach State will be able to boast a truly complete set of English standards.

*MATHEMATICS—B

- *Quality Core Curriculum in Mathematics, August 26, 2004*
- *Quality Core Curriculum: Mathematics, 1998, grades 9–12*

Georgia's relatively new math standards are strong and just a few changes could make them top-notch. The K–8 standards especially are clear, concise, and are generally free of edu-jargon. There is too much emphasis on calculator use and manipulatives throughout, including one standard that seems to leave it up to students whether they will use calculators or paper and pencil to solve problems. (Which one do you think they'll choose?) Middle grade algebra and geometry standards are well developed and grade appropriate. The high school standards (in revision at the time of this review) are somewhat marred by poor-quality sample lesson plans that overemphasize the use of graphing calculators, even for simple exercises, and the writing occasionally becomes vague. But these standards are a solid start and, we hope, just a way station on the road to excellence.

*SCIENCE—B

- *Georgia Science Performance Standards, 2004*

The Peach State divides its science standards by grade level, K–8, and then as courses in high school. The division of subjects is organized and clear. The document includes some odd language—"identify when comparisons might not be fair because some conditions are different"—but also some good statements on process. The handling of Earth sciences is adequate, and the chemistry and physics sections could use some touching up. But life science is done brilliantly. The treatment of evolution is straightforward, too. It's a peach of a document.

*U.S. HISTORY—B

- *Georgia Learning Connections: Quality Core Curriculum—Social Studies, 1999, Georgia Department of Education (Georgia has since revised its standards)*

Georgia begins U.S. history instruction in fourth grade when students are taught material starting with American exploration and ending with the Civil War. In fifth grade, pupils begin with the Civil War and Reconstruction and conclude with the 1960s’ civil rights movement. This is a strong start, despite the curriculum’s overemphasis on social history and its neglect of politics. Serious omissions exist, too. For example, the eighth grade “Georgia Studies” standards don’t include a unit about slavery in Georgia, a remarkable oversight. High school segments fare better and are far more inclusive of political history. Overall, these documents are solid, though one hopes Georgia’s new standards are even more comprehensive.

WORLD HISTORY—A

- *Georgia Social Studies Standards, 2005*

The Peach State’s standards are ripe in detail and easily plucked off of the state’s Department of Education website. The standards come with accessories, too: lesson plans and related materials in varying degrees of complexity, for example, which give teachers a great deal of flexibility in choosing the appropriate materials for their particular classes. As for content, the standards provide students with a comprehensive study of the complex societies of ancient history, the key narratives of classical history, and the development of democratic values in modern history, especially those events important to American history. States seeking strong models for world history standards should have Georgia on their minds.

HAWAII REPORT CARD

SUBJECT	2000	2006
English	F	C
U.S. History	F	F
Geography*	F	F
Math	C	F
Science	D	F
OVERALL GRADE	D-	F

*World History for 2006

*ENGLISH—C

- *Hawaii Content and Performance Standards II: Content Standards Language Arts, August 1999*
- *HCPS II Performance Standards, K-12*
- *The Standards Implementation Design System (SID), August 2000*
- *Strategic Implementation Plan, January 2003; Making Sense of Standards: Moving from the Blue Book to HCPS II, July 1999*
- *Teacher’s Guide for 2004: Interpreting the Hawai’i Student Assessment, 4th edition*

Hawaii does an excellent job in its English standards, covering literary elements and techniques, as well as adequately addressing oral and written language conventions. But Hawaii, like so many other states, suffers from not including a list of important authors or works to guide test makers or curriculum developers—not to mention teachers, parents, and students. These standards also tend toward vagueness and, when standards are vague, they are often also not measurable. Such is the case with much in Hawaii’s documents. For example, students are asked to “evaluate [their] own interpretation within a range of plausible possibilities.” Because of the pervasiveness of such flowery prose, vocabulary development is given scant coverage and it remains unclear whether a systematic instruction in phonics will take place in the primary grades. Hawaii’s standards could use a tune up. It wouldn’t be too difficult, either. More specificity would go a long way.

*MATHEMATICS —F

- *Curriculum Framework for Mathematics, Draft May 2003*
- *Grade Level Performance Indicators (GLPI), Revised Draft March 2004*
- *Scope and Sequence for Mathematics (SS), Draft May 2003*
- *Standards Toolkit Instructional Guides (IGs), Draft, May 2003*

It's difficult to say anything good about Hawaii's math standards, which might best be described as a content-free zone. The nonsense begins early, when the state announces that the old-fashioned idea that you need to learn "basic skill operations of addition, subtraction, etc." before moving on to more advanced topics "has been contradicted by evidence to the contrary." The authors aren't just bragging: these standards require almost nothing of elementary students beyond pushing buttons on a calculator. To these guidelines, the standard algorithms are near-strangers. "Life math" predominates; students are asked to describe "situations when addition, subtraction, multiplication, and division involving rationales are appropriate." Note, however, they are not asked to actually add, subtract, multiply, and divide. In the upper grades, important Geometry topics are missing and high school Algebra is almost a complete no-show. Throughout, the standards are vague, incomplete, frequently incorrect, and—with an elaborate hierarchy that includes general standards, content strands, benchmarks, and performance indicators—impossible to grasp as a whole.

*SCIENCE—F

- *Hawaii Content Standards, 1999*

Much like an inexperienced surfer on Oahu's North Shore who drops in only to summarily wipe out, this document fails on an epic number of levels. It manages to be daunting in length yet decidedly unenlightening. The organization is poor and content is juvenile, and redundancies abound. In most subject areas, the standards merely present overwhelming lists of topics. The one section that manages to present some useful information—life sciences—is quickly undermined thusly: "Evolution vs. cre-

ation: two approaches to help explain the origin of life; the former based on Darwin's Theory of Evolution and the latter on divine intervention." The problems here are legion. Hawaii ought to rethink this largely useless tome.

*U.S. HISTORY—F

- *Hawaii Social Studies Content Standards, 1999, Department of Education, State of Hawaii*

Hawaii's U.S. history standards are divided into ambiguous goals—"Change, Continuity, Causality," for example—which, coupled with the blatant lack of historical substance, form a relatively useless document. Indeed, Hawaii goes out of its way to eschew teaching substantive historical facts: "The study of history should not rest solely on the knowledge of facts, dates and places," and "Knowledge alone will not solve the problems of the 21st Century." Unfortunately, the standards-cum-social manifesto never reveals what will solve the world's most intractable dilemmas; nor does it reveal how Hawaii's students should study history and analyze past events without understanding important historical people and events. This document contributes nothing to the Aloha State's classrooms.

WORLD HISTORY—F

- *Hawaii Content Area: Social Studies, 2005*

"Research on effective schools tells us that one of the most important elements in improvising the results of education is being clear about standards, what it is the students are expected to learn." This foreword to the Hawaii Social Studies Content Standards makes Hawaii's abysmal performance all the more egregious. Amazingly, the standards lack both breadth and depth, hiding behind this statement: "This framework is not a checklist of subjects that must be taught. Instead it provides possible topics for implementing the history standards." In other words, Hawaii's framework provides a list of suggestions rather than concrete requirements, and it's an incomplete list of suggestions at that. Students should be expected to know specific information when leaving high school. Hawaii's world history standards engender no confidence that its students will know anything specific about the major events of world history upon graduation.

IDAHO REPORT CARD

SUBJECT	2000	2006
English	—	B
U.S. History	—	D
Geography*	—	F
Math	—	D
Science	—	F
OVERALL GRADE	—	D

*World History for 2006

*ENGLISH—B

- *Idaho Administrative Code, Rules Governing Thoroughness: Language Arts/Communications Standards*
- *Language Arts Mapping Documents from NWEA Idaho Learning Continuum, Feb. 28, 2003*
- *English Language Arts 12, Fall 2002*
- *English Language Arts 11, Fall 2002*
- *Language Arts Power Standards, K–12; Curriculum Ladders; Data Tools—NWEA*

These English standards benefit from coherent organization. They are presented by grade from K–8 and use one strand for the high school years. Almost all areas in the English language arts and reading sections receive good coverage including, it seems, systematic instruction in decoding skills. The standards have coherent measurements and grow increasingly difficult through the grades. Unfortunately, Idaho includes certain standards that expect students to “relate social, cultural, and historical aspects of literature to the reader’s personal experience.” Such penumbras and emanations are not teachable, while standards that expect students to “draw upon their own experience to connect to reading and listening” are not measurable. Especially in the high school grades, the expectations tend toward murkiness. This may be a product of the necessarily interpretative nature of literary analysis, but Idaho should make clear that such analysis can be either good or bad, and then give specific details to illuminate that position. It does not. A reading list of great detail, with more defined expectations, would improve these standards and probably boost them into the A-range.

*MATHEMATICS —D

- *K-12 Achievement Standards: Teacher’s Guide to Math, 2003*

Idaho clearly has a fetish for calculators, which make an appearance at every level of its math standards and play a debilitating role. In kindergarten through second grade, students use a four-function calculator. A third-grade standard, repeated for subsequent grades, encourages students to “Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three.” Beyond the commendable requirement to memorize the basic number facts, computational fluency without use of a calculator is not explicitly required by any of these standards. For one fourth-grade standard, students “Use a computer application to chart or graph the different colors of M&Ms found in a bag,” an activity repeated in the eighth grade. In fifth grade, students can “use a calculator to explore the pattern when multiplying with multiples of 10, for instance $400 \times 20 = 8,000$.” All this calculator use bears fruit in the upper grades, where the Algebra and Geometry requirements are thin at best, and students are put to work building scale models and mastering “manufacturing process control,” instead of covering critical topics such as polynomials or geometric proofs.

*SCIENCE—F

- *Idaho Power Standards and Idaho Administrative Code, 2005*

One expects when reading a document titled “Power Standards,” to be assaulted by no-nonsense information and content-heavy prose. Not in Idaho, though, where “Power Standards” is synonymous with amorphous presentation, scant content, and overbroad language. The fifth-grade content standards, for example, ask students to “Investigate the interactions between the solid earth, oceans, atmosphere, and organisms.” Another way to say this: “Know the entirety of earth systems science.” Some portions of Idaho’s standards are ridiculous, such as asking kindergarteners to “understand the theory that evolution is a process that relates to the gradual changes in the universe and of equilibrium as a physical state.” Such intellectual feats are beyond the normal 5-year-old’s scope. Perhaps in Idaho, every kindergartener is above average. If so, it’s not because of these standards.

*U.S. HISTORY—D

- *Idaho Suggested Social Studies Scope and Sequence, no date*
- *Idaho Social Studies Achievement Standards, 2000*
- *Integrated Instructional Guide—Grade 5: Introduction to American History Course of Study: U.S. History 1*
- *Course of Study: U.S. History 2, 2002, Idaho Department of Education*

Idaho’s students begin their U.S. history education in fifth grade guided by four “Instructional Themes”: “Where Are We?”; “Who Are We?”; “Why Are We Here?”; and, “How Did We Get Here?” One wonders why the state decided to teach history as if all Idaho fifth-graders are recovering amnesiacs. Predictably, this curriculum is short on content, and political history is essentially non-existent. Not one important American historical figure is named. And although the content is better organized and more thorough when students return to U.S. history in the tenth grade, huge holes remain. And still, no specific names are mentioned. The quality of coverage varies, too. Early American history, for example, is covered in far more detail than the twentieth century. These documents would benefit substantially from a more organized and precise content presentation.

WORLD HISTORY—F

- *Idaho Teacher Guides Social Studies, 2006*

To learn or not to learn? That is the question when it comes to world history in Idaho. The state considers world history elective. Many Idaho students will probably leave high school never having learned any world history at all. For those students fortunate enough to study the subject, the standards provide cursory guidance at most, with an occasional, but always fleeting, glimmer of hope. With its vague bundle of optional standards devoid of historical content and specificity, it is hardly surprising that Idaho’s world history standards dwell in the dregs with the bottom feeding worst five states.

ILLINOIS REPORT CARD		
SUBJECT	2000	2006
English	B	B
U.S. History	F	F
Geography*	D	D
Math	D	C
Science	B	B
OVERALL GRADE	C	C-
*World History for 2006		

ENGLISH—B

- *Reading: English Language Arts State Goals: 1–5, July 25, 1997;*
- *Reading Assessment Framework (Grades 3-8), October 2003*
- *Writing and Research Assessment Framework (Grades 3, 4, 6, & 8), October 2003*
- *Reading & Writing Assessment Framework (Grade 11), March 2004*
- *English Language Arts Performance Descriptors, 1–12, 2002*
- *Illinois Snapshots of Early Literacy—K/1 ISEL-K/1 Technical Manual (DRAFT), Winter 2004*
- *Illinois Standards Achievement Test Sample Writing Handbooks, 3, 5, 8, & 10, 1999, 2000, 2002, 2003*

Illinois’s standards benefit from a tangible organization and comprehensive coverage. English language arts and reading receive good coverage, and vocabulary benchmarks are clearly outlined. Illinois students cannot expect to receive a full-bodied English education, however, when their state standards eschew naming specific authors, literary periods, literary genres, and texts. No substantive curriculum can be formed without these components. Illinois avoids them, though, and in so doing cheats its K–12 population of a major segment of English education that they surely deserve.

MATHEMATICS —C

- *Illinois Learning Standards, July 25, 1997*
- *Performance Descriptors, 2002*

The 2002 addition of a set of “Performance Descriptors” to Illinois’s generally poor math standards improved its grade, but not by much. In the lower grades, there are serious deficiencies in the treatment of arithmetic, a foundation skill, and calculator use is promoted beginning in the earliest grades. Then, implausibly, an early elementary standard calls upon students to “Solve one- and two-step problems with whole numbers using addition, subtraction, multiplication, and division.” It is unclear how first- and second-graders could carry out division without the use of calculators or similar inappropriate technology. The reliance on technology continues into the middle grades, but high school standards are relatively strong, with solid coverage of algebra and geometry, though coverage of mathematical reasoning could be improved. Illinois is near the middle of the pack and could build on these standards, but should overhaul its entire approach (as did neighboring Indiana), rather than adding new documents on top of a creaky foundation.

SCIENCE—B

- *Illinois Learning Standards for Science, 1997 (modified 2004)*

Despite poor organization, Illinois’s standards have much going for them. Physical science content is top-notch—clear, precise, and without error. What’s more, the content mostly builds on itself as the grades progress, so students are never relearning material but, instead, reexamining it at increasingly complicated levels. If this material was reorganized in an easier-to-access format, Illinois would be in possession of some of the nation’s best physical science material. Earth and space sciences follow a similarly heartening pattern. The document does not thoroughly address life sciences until the high school years, but there it is given an exhaustive and far-reaching examination. The Land of Lincoln could easily turn these B-level standards into a first-class document. It will take some judicious reorganization to lay pathways through this science standards thicket, but the results could be glorious.

U.S. HISTORY—F

- *Illinois Learning Standards, Social Science*
- *Illinois Social Science Performance Descriptors*
- *Teachers Guide to Classroom Assessments from the Illinois Learning Standards*
- *Illinois Core Standards for all Social Science Teachers, 2000, Illinois State Board of Education*

Illinois’s standards have no chronological system for presenting U.S. history. At every level of study (early elementary, late elementary, middle/junior high school, early high school, and late high school) the history instruction jumps abruptly from one time period to the next, often skipping hundreds of years. The topics are ridiculously broad—middle schoolers, for example, are asked to “Describe the ways in which the United States developed as a world political power.” The documents contain no specific content; have no systematic, chronological framework; and never identify grade-level expectations. They are virtually useless.

WORLD HISTORY—D

- *Illinois Learning Standards, Social Science, 2004*

Faltering after getting off to a good start seems to be the theme of Illinois’s world history standards. They eloquently explain the importance of history—to “help people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world,” and to help students analyze the events of today and tomorrow by teaching them to understand the events of the past. Unfortunately, pointing is all these standards do. Teachers and students must find their own paths. The standards promisingly divide world history into 11 categories, but then neglect to back up the categories with historical detail. Students begin world history encouragingly with the study of classical civilization and the origins of Western political ideas and institutions, but the half page of superficial, vague, and unhelpful terms in which the world’s entire political history is “covered” is wholly inadequate. To Illinois’s credit, the standards emphasize some issues not discussed in other standards (such as the economic dimension of world history) and are by no means the worst of the worst; they are even good in some places. But if Illinois intends to realize the goals it’s set above, they could learn something from Tiger Woods: follow through.

INDIANA REPORT CARD

SUBJECT	2000	2006
English	F	A
U.S. History	C	A
Geography*	A	A
Math	C	A
Science	A	A
OVERALL GRADE	C+	A

*World History for 2006

*ENGLISH—A

- *ISTEP+ Indiana Statewide Testing for Educational Progress—Plus, Program Manual, 2003-2004, Sept. 29, 2003*
- *SAP English/Language Arts Standards, K–12, June 23, 2000*
- *Indiana Reading List, K–12*
- *K–2 Reading Assessments*

Indiana gets almost everything right in its English standards. English language arts, reading, vocabulary—all receive robust treatment. And literature, so often neglected by the states, is examined fully in Indiana’s standards, with American literature explicitly cited along with titles of recommended texts and their authors. The only shortcoming is that the state could have pointed students toward more authors and texts, but that’s a minor qualm. Indiana puts forth an English standards set that should make other states envious.

*MATHEMATICS —A

- *Indiana Mathematics Academic Standards, Approved September 2000*

The Hoosier State’s math standards are proof that states can be taught. The 2000 revision of its math standards vaulted Indiana from the middle of the pack to near the top. These standards are excellent in every way, both for what they contain—solid and appropriate coverage of important key topics, clear writing, and an eye to math-

ematical reasoning—and what they don’t—an overemphasis on calculator use and a fetish for probability and statistics. Students in the lower grades memorize the basic number facts, become competent in the standard algorithms, and learn to multiply and divide fractions. Coverage of Algebra and Geometry are solid, and while some of the teaching examples could be more clear (and the glossary of terms could use a careful edit), the document overall is ambitious, integrated, and logical.

SCIENCE—A

- *Indiana’s Academic Standards for Science, 2000*

Indiana’s standards stand out in many areas. But the Hoosier State succeeds most notably because, unlike many of its peers, it puts forth a document that may actually be useful to large numbers of teachers. Many states have developed platitudinous or inscrutable standards; Indiana has developed practical ones. From the get-go, these standards hit important areas that others miss. In second grade, the crucial link between mathematics and problems in natural science is established: “Recognize and explain that, in measuring, there is a need to use numbers between whole numbers, such as 2 1/2 centimeters.” A few, small mistakes pop up in the physical sciences, but no egregious blunders are evident. In the life sciences, evolution is handled solidly and without quibbling. An all-around worthy effort, and one from which other states could (and should) no doubt learn.

*U.S. HISTORY—A

- *United States History: Indiana’s Academic Standards—Social Studies*
- *Indiana’s Academic Standards: Teacher’s Edition—Social Studies, 2001, Indiana Department of Education*

From the start of their U.S. history study in fifth grade, Indiana’s students—and their parents and teachers—have at their disposal one of the most comprehensive standards documents in the nation. The content is thorough, and the presentation is balanced. Students return to U.S. history in eighth grade, and visit the subject again in high school. At each level, the standards cover new ground, but they also recover (presumably in greater detail at each, subsequent level) old topics of

particular importance, such as the period of America’s founding. The documents, however, do not sacrifice quantity of information for quality. They manage to do both, and the standards cover historical events up to the Clinton administration. Indiana’s U.S. history standards are a model of completeness.

*WORLD HISTORY—A

- *Indiana’s Academic Standards, Social Studies: World History and Civilization, 2000*

Indiana’s world history and civilization standards are among the finest in the nation, a clear illustration of the state’s genuine commitment to its students. The standards treat world history comprehensively yet coherently, leaving readers with clear expectations of what teachers should teach and students should learn. The document stresses the major contours of world history without neglecting topics of lesser significance, and it is particularly effective at incorporating religion into the fabric of history. The conclusion, outlining when students should know what, is particularly helpful. The Hoosier State’s standards do little to disappoint.

KANSAS REPORT CARD		
SUBJECT	2000	2006
English	F	C
U.S. History	B	B
Geography*	A	B
Math	A	F
Science	F	F
OVERALL GRADE	C+	C-
*World History for 2006		

*ENGLISH—C

- *Reading Standards, K-12 and Scope and Sequence Indicators, Approved July 8, 2003*
- *Curricular Standards for Listening, Viewing, Speaking and related search & Technology, January 2000*
- *Curricular Standards for Writing DRAFT, K-12, May 2004*
- *Six Trait Rubrics*
- *Six Trait Writing Trainers Database*
- *Kansas Curricular Standards for Writing*
- *Draft Reading Links*
- *Text Types*

The best part about Kansas’s English standards is their organization—clear and measurable, and grouped in four coherent categories: reading, literature, writing, and research. Systematic instruction in decoding skills is spelled out as such in the primary grades, including the use of appropriate practice materials (decodable texts). Language arts, reading, and vocabulary receive better than adequate care. But Kansas stumbles where so many others have. First, it is often unclear if and how the standards grow more difficult from grade to grade. This limits the documents’ effectiveness and it doesn’t send the correct message to students or teachers. Second, the Jayhawk State does a lamentable job covering literature and setting out which authors, texts, and literary genres are culturally or historically significant. Despite the good job Kansas does in other areas, it overlooks the finer points of literary instruction at its own peril.

* Since Fordham’s review of this subject standard, the state has either revised it or is currently revising it

MATHEMATICS —F

- *The Kansas Curricular Standards for Mathematics, revised July 2003*

More is not necessarily better, as proved by the Kansas math standards, which sprawl across 318 pages and use the phrase “mathematical models” no less than 572 times. That reflects the obsession the state has with using physical objects to teach math concepts, so prevalent that, in the end, one can’t decide if the models are meant to teach math or if math is just a hook for getting students to use models. Probability and statistics are overemphasized throughout, while the introduction of important subjects, such as multiplication and division of fractions, are delayed far too long. Students are never explicitly required to memorize the standard arithmetic facts or use the standard algorithms. The standards are also disorganized, artificially divided into “Knowledge Base Indicators” and “Application Indicators” that give no clear answers as to what students should be doing at any particular grade level. A mess throughout, with an unhelpful emphasis on technology and models, and little attention to the foundation skills students need to know.

SCIENCE—F

- *Kansas Science Education Standards, 2005*

It’s amateur hour in the Jayhawk State, where the State Board of Education has (yet again) defiled an otherwise sound standards document by inserting its own political and social goals. Specifically, the board has handed down decrees that not only challenge evolution but the very definition of science. An inexcusable gaffe, and one that comes with a scarlet F as consequence. (Thankfully, Kansas’s voters have since thrown the bums out.)

*U.S. HISTORY—B

- *Kansas Curricular Standards (for History), 1999, Kansas State Board of Education*

Kansas’s standards tie time periods to grade levels. Elementary school students focus on the eighteenth century, middle school classrooms work with the nineteenth, and high school teachers lecture on the twentieth.

During each time period, Kansas uniquely integrates its state history with national history. The document also identifies (with triangle icons) which topics will be tested on state assessments. These U.S. history standards are generally good, although they do occasionally stumble. The eighteenth century section does not spend enough time examining the development of democratic ideas, an omission which makes the transition to the Revolutionary era particularly abrupt. At times, political history is absent (Hoover is not mentioned in the sections on the Great Depression), and the integration of Kansas and U.S. history can be confusing in places. But by filling a few gaps, the Jayhawk State can easily possess a comprehensive set of U.S. history standards.

WORLD HISTORY—B

- *Kansas Curricular Standards for History-Government, 2005*

A recent revision of Kansas’s standards renders them better than most states, mapping out how various stakeholders in education might use the new document and giving serious treatment to historical content and detail. Kansas deserves only praise for the level of specificity and detail in its standards. The documents do have their difficulties, however. They are overly Eurocentric, emphasizing the rise of free-market capitalism without fitting it into the context of the rest of the world. Additionally, they split world history instruction into two courses, with ancient history through medieval times covered in sixth grade and the Renaissance through the modern era covered in high school. By the time students return to world history in high school, they’ve lost the basic chronological flow. “To the stars through difficulties,” goes the Kansas state motto. Kansas has only to overcome a few difficulties—reducing the chronological gap between its history instruction, for one—in order to reach the stars.

KENTUCKY REPORT CARD

SUBJECT	2000	2006
English	F	C
U.S. History	D	F
Geography*	F	F
Math	B	C
Science	D	D
OVERALL GRADE	D	D

*World History for 2006

ENGLISH—C

- *Transformations Volume I and II—Kentucky’s Curriculum Framework*
- *The Kentucky Core Content Test Blueprint (version 3.0)—Reading and Writing, September 1999*
- *Program of Studies—Primary English/Language Arts*
- *Core Content—Vertical Alignment*
- *Student Performance Standards, Grades 4, 7, & 10, Approved June 2001*
- *Student Performance Standards: Writing, Approved June 2001*

The Bluegrass State groups its English standards by core content for reading, which is delineated by grade level (3–10), and core content for writing, which sometimes encompasses spans of different grades. Reading skills and performance measurements are clearly presented in chart format and writing benchmarks are described with adequate specificity. But these documents encounter problems in the land of literature. The literary content for the reading assessment indicates that it will include “a variety of reading materials from different cultures and time periods,” leaving it unclear as to whether American literature will be taught at all (despite all the fine Kentucky authors). There is no real substantive content in the secondary school English curriculum. Also distressing is the standards’ lack of clearly defined increases in difficulty from year to year.

MATHEMATICS —C

- *Learning Goals and Academic Expectations*
- *Core Content for Assessment, 1999*
- *Program of Studies Mathematics, updated June 22, 2004*
- *Combined Curriculum Document, updated June 29, 2004*

Kentucky’s math standards are derived by reading numerous documents—including “Learning Goals,” “Program of Studies,” “Core Content for Assessment,” and the “Combined Curriculum Document,” meant to help teachers and parents navigate through the swamp of paper. Throughout, students are exhorted to “explore” and “investigate” numerous topics, not all of them useful or grade appropriate, and very often there is little detail as to what these fine-sounding verbs actually mean, leaving one the impression that despite the various prescribed activities, teachers will be forced to make it up as they go along. There is a strong focus on manipulatives and calculator use at all levels and, though the upper-grade standards are an improvement on the lower grades, they nonetheless miss important topics, especially in Algebra and Trigonometry. Kentucky’s many attempts to define what it wants from students reflect a basic insight that none of the documents really fit the bill. In the end, these standards are less than meet the eye.

SCIENCE—D

- *Program of Studies and Core Content for Science Assessment, 2001*

These science standards receive an A for effort. Unfortunately, they also receive a D for usefulness. That’s because Kentucky’s standards are organized in a relatively promising manner, but they do not complement that laudable classification with a similar level of content seriousness. The “Inquiry” section, for example, spends too much time on the “doing” of science and not enough time on the “knowing about” science. In grades 9–12, students “will examine nuclear structure, nuclear forces, and nuclear reactions (e.g., fission, fusion, radioactivity).” We can only hope the standards are fatuous and students do not, in fact, “examine” any of those things. In other content sections, widespread vagueness and omissions jeopardize comprehension. And life science makes the quintessential mistake

of avoiding evolution. It is quite apparent that the authors of these standards attempted to construct a reputable and helpful document. It is also apparent that they have not yet succeeded in doing so. Down a few mint juleps before reading this frustrating document.

U.S. HISTORY—F

- *Program of Studies for Kentucky Schools: Grades Primary–12*
- *Core Content for Assessment (Social Studies)*
- *Social Studies Model Implementation Manuals (U.S. History), 1999, Kentucky Department of Education*

Kentucky’s U.S. history standards are designed to convey the minimum required of the state’s students, and they are in no danger of exceeding that self-determined scope. The documents contain nothing resembling an outline and rarely mention any real, historical figures. Still, eighth graders are asked to “examine the impact of significant individuals and groups in early United States history.” The standards require performance of other similar tasks, but they don’t impart any actual historical knowledge to help students achieve them. The Bluegrass State seems to feel that history is descriptive rather than analytical. This is incorrect and misguided. So are these standards.

WORLD HISTORY—F

- *Core Content for Assessment, Social Studies, Adoption Pending*

Kentucky’s Core Content for Social Studies Assessment is a misnomer: no real content is contained within. The entire history of the world since 1500 C.E. is presented in six bullet points, covering just more than half a page of text. The so-called “Big Ideas” of social studies, that “history is an account of human activities that is interpretive in nature” and that “the history of the world is a chronicle of human activities and human societies,” are so vague as to be meaningless. Major historical narratives are entirely absent. There is no basic chronology of world history, and only cursory attention is given to major historical ideas and events. To top it all off, the standards are cumbersome and difficult to navigate. Kentucky should take advantage of the fact that the standards are currently in draft form, scrap them, and start over.

LOUISIANA REPORT CARD		
SUBJECT	2000	2006
English	B	A
U.S. History	C	D
Geography*	A	F
Math	F	C
Science	C	B
OVERALL GRADE	C+	C+

*World History for 2006

ENGLISH—A

- *Louisiana English Language Arts Content Standards, State Standards on Curriculum Development, revised March 2004*
- *Division of Student Standards and Assessments: Grade-Level Expectations—English Language Arts, preK-12*
- *Teacher’s Guide to Statewide Assessment, Grades 4, 8, and 10 English Language Arts, revised June 2000*
- *Reading Programs LEAP 21 Tutoring Lessons—4th Grade English Language Arts*
- *LEAP 21 Tutoring Lessons—8th Grade English Language Arts*

Literature was clearly on the minds of those who crafted Louisiana’s fine English standards. Truly praiseworthy are sentences such as this: “Identify and explain connections between historical contexts and works of various authors, including Homer, Sophocles, and Shakespeare.” So, too, this: “Analyze in oral and written responses distinctive elements (including theme, structure, and characterization) of a variety of literary forms and types, including: essays by early and modern writers; epic poetry such as *The Odyssey*; forms of lyric and narrative poetry such as ballads and sonnets; drama, including ancient. . . .” In grades 11 and 12, students are asked, among other things, to “demonstrate understanding . . . in American, British, and world literature . . . for example:

. . . comparing and contrasting major periods, themes,

styles, and trends within and across texts” and to “analyze and explain the significance of literary forms, techniques, characteristics, and recurrent themes of major literary periods in ancient, American, British, or world literature.” Fantastic stuff!

MATHEMATICS —C

- *Content Standards Foundation Skills, 1997*
- *Grade Level Expectations, 2004*

Louisiana seems to have decided to split the difference between bad and solid—an improvement, to be sure, but hardly something to cheer about. The state has retained a dreadful 1997 document, “Content Standards,” and overlaid it with the “Mathematics Framework,” a solid set of standards. This latter document exhibits many flaws common to other states, including an overemphasis on calculator use, statistics, and probability, as well as deficiencies in the development of fraction arithmetic that emphasize rote procedures over mathematical reasoning. But it so far superior to the 1997 document that one must ask, why not chuck the old standards entirely?

SCIENCE—B

- *Louisiana Science Framework, 1997*
- *Science Grade Level Expectations (some editorial changes have been made to this document since we last reviewed it)*

The Bayou State’s standards are long, but they’re mostly quite good. Physical science and astronomy are both well developed. In the early grades, chemistry is not examined at a comparable level, but by high school, the standards make an effort to cover all the necessary areas with sophistication. The text contains small errors and at times the amount of detail on each page can become excessive. On the whole, though, specificity is an asset to these standards, which, in turn, are an asset to the students of Louisiana.

U.S. HISTORY—D

- *Louisiana Social Studies Content Standards: State Standards for Curriculum Development, 1997*
- *Teachers’ Guide to Statewide Assessment: Social Studies, 2000, Louisiana Department of Education*

These standards are on the right track but suffer from a motif of murkiness. Throughout their presentation of U.S. history, the documents fail to provide students or teachers with any concreteness. The nation’s history prior to 1860 is, according to these standards, one in which slavery and democracy played no part. The American Revolution occurred without Washington, Jefferson, or Franklin (or even a Declaration of Independence, which seems necessary for a revolt), and the Civil War involved no one by the name of Lincoln or Lee. The structure is there. Now all that remains is for Louisiana’s standards writers to fill in the details.

WORLD HISTORY—F

- *Louisiana Social Studies Content Standards, 1997*

Louisiana’s Social Studies Content Standards attempt to present a balance between foundation skills and content-based instruction. Unfortunately, they don’t. World history receives neither the attention nor the rigor it deserves in any of the three grade clusters under which history instruction is classified. The content standards are vague and repeatedly have unrealistic expectations of the students, asking 5- to 10-year-olds, for example, to describe “the social and economic impact of major scientific and technological advancements.” There is a six-year time lapse between the study of classical history in fifth grade and the study of modern history in eleventh grade, which is particularly detrimental to students’ historical understanding. If the only way to understand the present and the future is by understanding the past, Louisiana students will be unprepared to understand the world around them.

MAINE REPORT CARD

SUBJECT	2000	2006
English	B	C
U.S. History	D	F
Geography*	F	F
Math	D	D
Science	D	D
OVERALL GRADE	D+	D-

*World History for 2006

*ENGLISH—C

- *English Language Arts, July 1997*
- *English Language Arts: Reading Item Information, Content Standards, Scoring Guides, Training Notes, and Student Examples, December 2000*
- *English Language Arts Assessment Inventory, revised June 9, 2004*
- *Performance Level Guide—Elementary, 1998–99 School Year*
- *1998–99 Elementary-Level Released English Language Arts Writing Prompt*

The English standards Maine puts forth are mostly satisfactory in their content and outline. Worth noting is the state's particular emphasis on teaching students the history of the English language. One problem, however, is the large grade spans the state uses to house its content standards. Benchmarks that span two or three grades—sometimes more—are inappropriate for today's standards-driven education models. Maine lags in this regard, and its standards are due for a grade-level update. It lags, too, in its presentation of literary material (although, here, the state is not alone; most states replicate this oversight). The Pine Tree State should restructure its standards grade by grade, and insert specific authors, texts, and genre descriptions. If Maine does that, its students will find themselves with a far better standards document than they now possess.

MATHEMATICS —D

- *Learning Results, 1997*

There are several reactions one might have to this sentence from the Maine middle school math standards: “[I]dentify patterns in the world and express these patterns with rules.” One is to note that this describes all of physics. The second is to ask, “Huh?” Unfortunately, that is what too many teachers will be left to do with these standards, which are altogether vague and indefinite and give teachers little guidance as to what they should be teaching. These standards send teachers and students on wild-goose chases, collecting magazines, drawing up proposals for bridges, and describing “the structure of the real number system,” but they too infrequently prescribe actual knowledge to be gained through exercise and repetition. In the upper grades, coverage of Algebra is spotty, missing such important topics as completing the square and the quadratic formula. Throughout, these standards are an excellent example of “math chat”—all talk, but little substance.

*SCIENCE—D

- *Maine Learning Results, 1997 (revisions are due out in 2007)*

The Pine Tree State developed this document with one guiding principle: brevity is the soul of standards. In fact, Maine addresses standard G—the Universe—on a mere half page. This would be impressive if Maine coupled its conciseness with content specificity and precision. Unfortunately, it does not. Representative of much of this document: “Explain how differences in time, place, or experimenter can lead to different data.” This statement is not qualified by an explanation of the scientific process. Rarely does Maine see fit to detail any type of classroom activity, but, when it does, the results are hardly inspiring. High schoolers should “Create a poster illustrating the cycles of water, oxygen, and carbon dioxide as they relate to photosynthesis and respiration.” This is neither challenging nor edifying. Returning to the brevity theme, Earth science fits on two-thirds of a page and contains useless statements, such as “Describe factors that can cause short-term and long-term changes to the earth.” In sum—too scanty, too vague, too simple.

U.S. HISTORY—F

- *Maine’s Common Core of Learning, 1990*
- *State of Maine Learning Results, 1997*
- *Maine Educational Assessment, 1998–1999, Maine Department of Education*

Maine has managed to put together three U.S. history documents which, between them, contain no U.S. history. Impossible? No. The state spends pages on introductory material, each overflowing with platitudes about forming productive citizens, producing minds that will flourish in the twenty-first century, and such. Conspicuously absent: American history. It is no exaggeration to say these standards are completely useless. Maine ought to scrap them and give it another go.

WORLD HISTORY—F

- *Social Studies Standards, 1997*

Maine’s Learning Results expect students to “evaluate,” “analyze,” “explain,” “identify,” “recognize,” and “describe” particular aspects of history. Using what content? The Learning Results place this burden on individual schools rather than provide actual historical content. The standards divide history into three sections—chronology; historical knowledge; and historical inquiry, analysis, and interpretation—which are further divided into grade clusters. This would be helpful if world history received concrete treatment before the high school grades. Even for the secondary years, though, the offerings are sparse, and the only specific guidance on world history is presented in six one-line bullet points. With standards so heavy on rhetoric and light on content, it is likely that Maine’s students will have a hard time understanding any kind of history, let alone world history.

MARYLAND REPORT CARD

SUBJECT	2000	2006
English	B	C
U.S. History	B	C
Geography*	B	D
Math	C	C
Science	D	B
OVERALL GRADE	C+	C+

*World History for 2006

*ENGLISH—C

- *Voluntary State Curriculum: English Language Arts(DRAFT), PreK-10, August 28, 2003*
- *Maryland Summary of its English Language Arts and Reading Standards Language Arts/Core Learning Goals/Clarification Documents Goal 1– 4 Reading/English Language Arts Instructional Strategies*
- *Guide for Independent Reading Sample Plan*
- *English Language Arts Student Monitoring Plan Rubric: English Brief Constructed Response Public Release Items and Student Responses*
- *High School Assessment, English Assessment, 2000, 2001, 2002, & 2003*

Maryland groups its standards by grade from Pre-K through grade 8, and grade 10. They address general reading processes; general reading comprehension; comprehension of informational text; and comprehension of literary texts, writing, listening, and speaking. These standards are well-organized, make use of contextual approaches, and do well to nurture the understanding of more-challenging vocabulary throughout the grades. But Maryland’s English standards stumble, especially those concerned with research skills and processes (which are underdeveloped). Unfortunately, the state also tends toward the general in much of its writing—specifics, especially in the literature subject area, would go a long way toward improving these benchmarks. American literature, for example, garners nary a mention. The history of the English language is presented in a less-than-scintillating and unspecific manner.

*MATHEMATICS —C

- *Mathematics Voluntary State Curriculum, August 2003*
- *Algebra/Data Analysis and Geometry*

Maryland’s math standards are, in a word, odd—starting with general principles meant to guide learning, followed by more specific “Objectives,” and then even more specific “Assessment Limits,” which delineate the extent to which students can be tested on a particular topic. In the end, of course, that means that teaching will confine itself to the assessment limits, and there is no particular reason that third graders, for example, should be limited to learning only the real numbers between one and 1,000. One strand for K-8, “Process of Mathematics,” generally amounts to a series of exhortations to “Identify the question” or “Guess and check,” under which lies the false notion that math is more a hypothesis-driven enterprise than it is a discipline with recognizable processes. Patterns, probability, and statistics are emphasized throughout, while the Algebra standards are weak and include, strangely enough, several calculus topics too advanced for the grade level.

SCIENCE—B

- *Voluntary State Curriculum—Science, 2005*

These science standards are better than worse, but the Old Line State certainly has room for improvement, especially in its advanced (high school) standards. While the K–8 material is comprehensive, that in the advanced category is far less so. Physical science receives good and thorough treatment, but Earth/space science leaves much to be desired. It contains no serious examination of astronomy or cosmology. The advanced Earth/space science material is overly general and presents little in the way of useful information. Some statements are breathlessly broad, such as these: “The student will apply the law of conservation to the processes that affect rocks and minerals,” “The student will identify that data are biased.” Refreshingly, the life sciences coverage is excellent and chemistry—though thin throughout the grades—remains clear and reasonable. With a bit more care, Maryland could reshape these standards into a pride-inducing collection.

*U.S. HISTORY—C

- *Maryland Social Studies High School Core Learning Goals, 1999*
- *Maryland Social Studies Standards, 2000*
- *Draft Grade-by-Grade Social Studies Content Standards, 2001, Maryland State Department of Education*

Maryland’s students study U.S. history in fifth, eighth, and twelfth grades, and the standards do a poor job of minimizing the disruption inherent in such a segmented education. Students, for example, only touch the colonial era in fifth grade when the standards present overarching concepts without naming specific historical figures. Thus, Maryland’s youngsters are given an inadequate history of colonial America and then never revisit the topic in later years. The standards become more specific in the twelfth grade—although the section covering the Great Depression mentions neither Hoover nor FDR—but by then, too much history has been missed. Maryland should fix the sequencing of these standards so as not to continue to deprive its students of entire swaths of U.S. history.

*WORLD HISTORY—D

- *Maryland Social Studies Standards, 2000*

Maryland’s core learning curriculum is nothing more than a hodgepodge of historical items stripped of their chronological context. The connections between disparate events in world history are obfuscated by their presentation as discrete topics unrelated to one another. To confuse matters more, the standards lack grade specificity, leaving teachers without a blueprint for teaching. Reading through the standards, one is left with only a vague idea of the basic areas and themes students are expected to understand, but absolutely no idea how the information is to be conveyed. Maryland would benefit greatly from increased specificity, detail, and context in its standards.

MASSACHUSETTS REPORT CARD

SUBJECT	2000	2006
English	A	A
U.S. History	B	A
Geography*	D	A
Math	D	A
Science	A	A
OVERALL GRADE	B-	A

*World History for 2006

ENGLISH—A

- *Massachusetts English Language Arts Curriculum Framework, June 2001*
- *Release of Spring 2003 Test Items, August 2003*

The Bay State presents clear English standards documents that cover all areas of English language arts with competency, explicit and unmuddled expectations, and strong vocabulary instruction. Massachusetts also seeks to crystallize its expectations for teachers and students by offering particular curriculum activities to supplement lessons. The standards documents suggest authors and texts, and give ample information about why each work is important and worth classroom examination. What's more, state tests ask students about many of these literary suggestions, so there is some much-needed muscle behind the standards. These documents are no lightweights and Massachusetts students are better off for it.

MATHEMATICS —A

- *Massachusetts Mathematics Curriculum Framework, November 2000*
- *Supplement to the Massachusetts Mathematics Curriculum Framework, May 2004*

Massachusetts manages something close to unheard of in its excellent math standards—it puts the technology beast back in its box. These standards recognize that calculators and other implements can serve an important role in teaching mathematics while refusing to bend to demands that students avoid hand calculations and memorization for punching buttons. Though more guidance on how to use technology in the upper grades would be useful, the Bay State has the right idea. Elsewhere, the standards are clear, direct, and concrete, with a solid, though not unproblematic, emphasis on developing mathematical reasoning. Elementary standards especially are excellent, requiring memorization of the basic number facts and facility with the standard algorithms. Students are expected to know how to compute with and solve word problems involving fractions, decimals, and percents by the end of elementary school. These topics are further developed in the middle school standards and Algebra and Geometry are nicely covered in the upper grades. All in all, a more than solid performance.

*SCIENCE—A

- *Massachusetts Science and Technology/Engineering Curriculum Framework, May 2001*

Oh, Massachusetts—the darling of rigorous standards-lovers everywhere—has done it again, putting out a science standards document that other states can only envy (or, perhaps, adopt as their own). The Bay State begins with a relatively platitude-free introduction, and moves on to put forth standards in a clear and organized manner. The entire presentation is comprehensible and will find an audience among concerned teachers, parents, and students. It is not only comprehensible, but comprehensive as well. Material on science inquiry is integrated with disciplinary content and mathematical problem solving is stressed. Also commendable: the Bay State stresses to students the importance of being able to communicate their work clearly (that is, they should be able to write well). A few scattered errors exist, but overall these are standards of which the state can, and should, be proud.

*U.S. HISTORY—A

- *Massachusetts History and Social Science Curriculum Framework, 2002, Commonwealth of Massachusetts Department of Education*

Massachusetts’s U.S. history standards do the Boston Tea-partiers proud. They are generally comprehensive and, quite commendably, treat history as independent of the social studies monolith. They also mention pre-Columbian civilizations’ use of slaves (one of the only states that does), and they eschew anonymous history by including specific “life and achievements” sections about specific historical figures. But the Bay State’s standards are not without oversights. It’s odd that Massachusetts, the state that virtually invented American politics, would forgo any mention of the growth of political parties. Or that it would ignore the impact of Revolutionary ideas on slavery and suffer from a dearth of political history in the nineteenth and early-twentieth centuries. Yet, despite its several content-based shortcomings, Massachusetts puts forth an exemplary document worthy of that state’s historical legacy.

WORLD HISTORY—A

- *Massachusetts History and Social Science Curriculum Framework, 2003*

Massachusetts’ standards begin with a passionate argument for democratic values and the assertion such values depend upon each new generation. The documents follow through as well, providing focused, balanced content (and lots of it), along with specifications for each grade. The standards are lucid and easy to follow, emphasizing significant events with just the right amount of detail. The historical content is exhaustive but not exhausting, brought to life through the drama of democracy’s evolution and the historical struggles surrounding it. The sections on Greece and Rome, the bedrock of Western civilization, are especially robust. On top of all that, Massachusetts provides curricular flexibility with five alternative social studies sequences schools may teach. If all state standards were like these, we could sleep soundly at night, secure in the knowledge that our democracy is safe.

MICHIGAN REPORT CARD

SUBJECT	2000	2006
English	F	D
U.S. History	F	F
Geography*	B	F
Math	F	C
Science	D	D
OVERALL GRADE	D-	D

*World History for 2006

ENGLISH—D

- *Michigan Curriculum Framework, 1996*
- *English Language Arts Grade Level Content Expectations, K–8, 2002*

Michigan begins well enough. The state’s English standards are arranged grade-by-grade from K-8, and each grade level is divided into coherent strands: Reading (with literary and non-literary reading distinguished), Writing, Speaking, Listening, and Viewing. The standards seem to expect students to be able to understand and use decoding skills independent of contextual approaches, and they offer a good vocabulary strand through grade 8. Then, the problems creep in. The first is quickly noticeable—the dreaded vagueness, which is apparent, for example, by asking students to “demonstrate their ability to use different voices in their oral and written communication to persuade, inform, entertain, and inspire their audiences.” This says little of value, if anything at all. Then readers encounter the most serious deficiency. There is no core group of authors, texts, or literary guidance for students and teachers to use. The total absence of such information continues to shock, especially because it makes up the bulk of secondary school English content. But Michigan leaves those students adrift; let us hope Wolverine State teachers will, on their own, be able to guide these youngsters toward solid literary land.

MATHEMATICS —C

- *Michigan Curriculum Framework, 1996*
- *Michigan Curriculum Framework: Mathematics including Teaching & Learning Activities, 1998*
- *Grade Level Content Expectations, v. 6.04, March 30, 2004*

The 2004 addition of the “Grade Level Content Expectations” was a distinct improvement to Michigan’s otherwise lackluster math standards. Those original documents were vague and repetitive, sometimes repeating the same standard for all three grade bands and sending students out to investigate advertisements, sports events, and maps to find patterns and shapes—nice for a graphic design class, but rather far afield of what’s needed for solid math instruction. Still, the new document could be improved in several places. Fraction arithmetic is well covered, as are irrational numbers, and middle grade Algebra and Geometry are strong. But there are frustrating gaps in coverage of whole number arithmetic, and the section on probability could use a thorough edit. Michigan is getting there, and the new document is a welcome, but incomplete, improvement.

SCIENCE—D

- *Michigan Curriculum Framework Science Benchmarks, Summer 2000*

Michigan’s K–12 standards are lacking. Earth science is general and thin, and rather than put forth detailed standards, the section presents topics in single words—e.g., “rivers.” No doubt rivers are important in the science realm, but Michigan doesn’t give any information about why that is. Other thematic standards repeat this deficiency. For example, middle and high school students are asked to “Design and conduct scientific investigation.” The lack of specificity and detail is apparent throughout the various content areas. Physics is given the shortest shrift, though. The authors think—wrongly—that there is no need for specific discussion of forms of energy. Instead, students are given lists of things or phenomena, the significance of which are never explained. Biology fares better, but it hardly makes up for the balance of vagueness.

U.S. HISTORY—F

- *Michigan Curriculum Framework, 1996*
- *Michigan Authentic Assessment of Social Studies*
- *The Social Studies History Themes Project, 2001, Michigan Department of Education*

In its quest to connect history to modern times, Michigan has created standards that substitute broad topics and baseless speculation (disguised as critical thinking) for facts. First, the documents contain no names. This is a problem, because a fairly large part of history involves individual people who did specific things. Further, most of Michigan’s benchmark topics (e.g., discuss “the responses of individuals to historic [sic] violations of human dignity involving discrimination, persecution, and crimes against humanity”) are repeated, often verbatim, at different grade levels. So much for expecting older students to handle more advanced topics. But the most odious part of Michigan’s standards is their obsession with asking students to judge the meritorious value of past events. This encourages arrogance, especially when these documents make clear, through their systemic omission of real information, that students need no factual basis for their opinions. A horrible thing to teach. If the Wolverine State isn’t going to put forth anything useful in its standards, it ought to at least channel the Hippocratic Oath: First, do no harm!

WORLD HISTORY—F

- *Michigan Curriculum Framework, 1995*

“If you seek a pleasant peninsula, look about you,” reads the state motto of Michigan. If you seek a peninsula with good world history standards, however, look elsewhere. The standards are poorly organized, hard to follow, and far more complicated than is necessary. Like many other states, Michigan folds world history standards into social studies, obfuscating how each should be taught. Significant historical figures and events often receive only superficial treatment. The standards should lay out coherent, grade-specific content in a manner that makes it clear what students are expected to learn and when they are expected to learn it. The Wolverine State’s unwieldy approach to world history instruction does a disservice to its parents, teachers, and students. Standards-makers should make for a beach on the pleasant peninsula and throw every copy of Michigan’s content standards into the water.

MINNESOTA REPORT CARD

SUBJECT	2000	2006
English	F	B
U.S. History	F	F
Geography*	F	A
Math	F	D
Science	A	B
OVERALL GRADE	D-	D+

*World History for 2006

ENGLISH—B

- *Minnesota Academic Standards: Language Arts K–12, May 19, 2003*
- *Alignment of Minnesota Early Learning Standards with State K–12 Standards, Working Draft September 2003*
- *Minnesota Comprehensive Assessment—Sample Tests/Practice Tests*

English standards in Minnesota are presented grade-by-grade from K–8, and one set of standards is used for grades 9–12. Readers will be impressed by the clarity of these documents and the noticeable increases in difficulty of material from one grade to the next. The categories are presented in a commonsense format: writing; reading and literature; and speaking, listening, and viewing. A pleasant surprise is the discovery that American literature is mentioned at almost every grade level. But the state’s treatment of literature is not all roses. In fact, despite its inclusion at almost all levels, the literary content in grades 9–12 still manages to lack comprehensiveness. Students should be presented, not only with a short list of required reading (though such a list is certainly important), but also with an overview of how those works play into larger literary genres and how they’ve influence other authors and texts. Minnesota doesn’t present that overarching picture with the detail it deserves. A way to remedy this problem is to create standards for each high school grade. Such an arrangement virtually assures a greater detail and topical exploration. But hats off to Minnesota’s English standards, which are well on their way to joining the ranks of the nation’s best.

MATHEMATICS —D

- *Minnesota Academic Standards, Mathematics K–12, May 19, 2003*

The best that can be said of Minnesota’s relatively new math standards is they’re an improvement. But that’s not saying much, since the set they replaced were so consistently awful. The new standards require memorization of the basic number facts and computation of the sums and differences of three-digit numbers by hand. All good, but the strands on fraction arithmetic are a mess, while middle grade Algebra is weak—a serious shortcoming, since these are the years when a foundation should be built for more in-depth study of this topic in later years. The same is true of Geometry, where the Pythagorean Theorem is introduced several years too late, in high school. And the whole document needs a careful vetting by an editor who not only knows mathematics, but grammar—there are an unconscionable number of little editing mistakes in these standards.

SCIENCE—B

- *Minnesota Academic Standards K–12, 2003*

One of the greatest virtues of these standards is their organization, immediately made clear to readers. Minnesota begins by presenting a 23-page tabulated matrix that illustrates exactly what is covered within each grade. Physical science receives a thorough treatment in the younger grades, but, as students age, the content rigor wilts. Small errors weaken the sections. Life science is good and Minnesota makes no concerted effort to hide or downplay the importance of evolutionary biology. While the nature and science section is generally good, too, it loses steam by dabbling in vacuities, e.g., “the student will recognize that everyone can do science and invent things.” On the whole, not bad. But these standards, with little work, could be bumped into A-range.

*U.S. HISTORY—F

- *High Standards, 1999*
- *Social Studies: A Guide for Curriculum Development to Support Minnesota's High Standards, 2001, Minnesota Department of Children, Families and Learning*

Have you ever wanted to know “how different people may respond differently to the same event”? Or have you ever yearned to “describe a past event from the point of view of a local community member,” or “illustrate the influence of diverse ideals or beliefs on a theme or an event in the historical development of the United States”? If not, that’s probably because you recognize the above activities are a complete waste of time. But in Minnesota, they’re part of the state’s standards, nestled under the mind-numbing “Peoples and Cultures” document. To save time, just know that Minnesota has no real U.S. history standards, and what passes as such is simply vague and platitudinous language about “perspectives” and “ideals.” From our “perspective,” these so-called standards stink.

WORLD HISTORY—A

- *Social Studies Framework, 2004*

From the very beginning, Minnesota’s standards are clear about what is expected of its students. While they lack year-by-year grade specificity, they are organized into three grade clusters that leave the districts some curricular flexibility. Students focus on interesting people and places in the early years, laying the groundwork for more comprehensive study a few years later. Students survey the entire scope of world history in middle school and again in high school, with an eye toward more complex topics the second time around. Clear expectations and benchmarks are provided for each grade cluster, and they are treated with the same excellent level of detail and coherence as the historical content the standards present. When it comes to world history, the Land of 10,000 Lakes is worth looking to for guidance.

MISSISSIPPI REPORT CARD

SUBJECT	2000	2006
English	C	B
U.S. History	C	F
Geography*	D	C
Math	A	D
Science	F	F
OVERALL GRADE	C-	D+

*World History for 2006

*ENGLISH—B

- *Mississippi Language Arts Framework 2000, K–12*
- *Reading Instructional Intervention Supplement (Benchmarks, Informal Assessments, Strategies) Grade K–3, 1998*
- *Reading Instructional Intervention Supplement (Benchmarks, Informal Assessments, Strategies) Grade 4–8, 1999*
- *Writing Instructional Intervention Supplement, Grades K–3, 2002*
- *Writing Instructional Intervention Supplement (Benchmarks, Informal Assessments, Strategies) Grades 4–8, 2002*
- *Instructional Intervention Guide English II, 2001*
- *Mississippi Dyslexia Handbook Guidelines and Procedures Concerning Dyslexia and Related Disorders, 2002*
- *Writing for the State Assessments, revised 2004*
- *Language Arts Courses, K–12*
- *Chart of Scope and Sequence Continuum of Competencies*
- *Appendix V–VIII: Reading/Writing Instructional Intervention Supplement, K–3 & 4–8*
- *Sample Standardize Curriculum Format, 2000*

Mississippi has invested noticeable effort to supplement its existing English standards document with, well, supplements. And they do a good job, overall, of making the state’s standards more comprehensible, filling in some holes. For example, they address expectations for writing,

by grade level through eighth grade, and they specify phonics instruction and do a top-notch job covering vocabulary. It's refreshing that literary study gets good coverage in high school. The Magnolia State actually goes above and beyond on that front, establishing teaching strategies and activities that make use of specified, top-notch literary works. This is praiseworthy, to be sure. Less so, unfortunately, is the state's higher-level writing standards. Where the state fails to tap its own rich writing heritage, or to incorporate excerpts from that venerable tradition into its standards and tests, it would go a long way toward generating excitement about writing and literature, and teaching students how to practice the craft. Not to mention the bonus: field trips to Oxford!

*MATHEMATICS —D

■ *Mississippi Mathematics 2000 Framework*

Minnesota's math standards could use an editor, but the state should definitely not hire the person who botched Mississippi's. After our last review of these standards, someone went through these documents with a red pen and ruined an excellent set of standards with edu-jargon, introducing imprecision and misleading statements throughout. New standards include such whoppers as, "Explore how change in perimeter results in a change in area." There is, in fact, no functional relationship between area and perimeter for polygons. Calculators are prevalent throughout and the standards have become unnecessarily incremental, with students reading and writing one-digit numbers in Kindergarten, two-digit numbers in first grade, getting to nine-digit numbers in fifth grade, and twelve-digit numbers only in the sixth grade. The documents are also an organizational mess, with five strands of "Competencies" and suggested teaching objectives for each grade or course, which are kept deliberately optional to allow for flexibility. This flexibility, of course, has the potential to pitch the instructional level to the lowest possible denominator—which, in these standards, is pretty low.

SCIENCE—F

■ *Mississippi Science Framework, 2001*

Why do Mississippi's science standards receive such a pitiful grade? The document offers some insight: "Using oil and feathers," it instructs students, "experiment to discover what happens to a bird's feathers in an oil spill." It also prods students to "create useful objects from trash." One wonders what useful object could be fashioned from these standards! Physical sciences fare best in Mississippi's standards, but even there, serious deficiencies are evident. Chemistry content is weak and mathematics is not used in any serious way. As elsewhere, far too much emphasis is placed on activities—most of which are, as in the aforementioned cases, a waste of time. There is a high frequency of errors. Earth and space science are adequately covered in grades K–8, but the higher grades miss an opportunity to build on these foundations and instead repeat material that fail to challenge students. Life science coverage is sporadic—good sometimes and poor others—and the state never mentions evolution. Boo!

*U.S. HISTORY—F

■ *Mississippi Social Studies Framework, 1998, Mississippi Department of Education*

The problem with Mississippi's U.S. history standards can best be illustrated by quoting directly from the documents themselves. Students learn about America's immigrant history "making a graph of immigrants in [their] hometown." They are to learn "Native American history by creating a Native American artifact." Students should "Role play a talk show with guests who are complaining about working conditions in factories and mines" to understand the labor movement. And Westward expansion is taught thus—"Experiment with overcrowding to experience the need for expansion (e.g., tape off an area of floor in the classroom and choose students to fill this area to capacity and brainstorm problems due to overcrowding.)" These activities are pointless, but they comprise Mississippi's standards, which are completely anonymous, distressingly vague, and somehow cover the Civil War and Reconstruction without mentioning slavery. Standards for U.S. history instruction, these are not. Fun and games, they are ... though they could be more fun and have more games!

WORLD HISTORY—C

- *Mississippi Social Studies Framework, 2004*

“Mississippi” is the answer to an old childhood riddle: “What has four i’s but cannot see?” What’s missing from Mississippi’s content standards, however, is not vision. The Magnolia State’s standards aspire to “foster the development of life-long, responsible, accountable, global citizens in a democratic society.” How to get there is left to the districts, which would be fine if only Mississippi gave them something to work with. The standards do a promising job of identifying important topics for treatment, but fail to approach them with an appropriate level of depth. On the up side, Mississippi has a strong approach to incorporating external literature into world history, with particularly good suggestions for sixth and seventh graders. All told, however, Mississippi is a perfect example of good intentions with no follow through. When it comes to gifts, the saying is “it’s the thought that counts.” The same cannot be said for education.

MISSOURI REPORT CARD

SUBJECT	2000	2006
English	F	C
U.S. History	C	F
Geography*	B	F
Math	F	F
Science	C	C
OVERALL GRADE	D+	D-

*World History for 2006

*ENGLISH—C

- *Missouri’s Framework for Curriculum Development in Communication Arts, K–12, 1996*
- *Communication Arts Grade-Level Expectations DRAFT, February 2004*
- *Achievement Level Descriptors, 3, 7, & 11, revised Jan. 14, 2004;*
- *Assessment Annotations for the Curriculum Frameworks Communication Arts, Grades 3, 7, 11*
- *Performance Standards: Overview, Goal 1–4, Jan. 18, 1996*
- *Missouri’s Framework for Curriculum Development in Communication Arts, K–12*
- *CA Released Items, 2003, 2002, 2001, 2000, 1999*

Readers will find these English standards—divided by grade level for K–8, with one set of standards for 9–12—to be clear and measurable. Missouri puts forth as one of its major goals the preparation of students for informed participation in American civic life, and toward that end it does an excellent job covering speaking and listening skills. Beginning readers also benefit from a comprehensive set of standards. But Missouri doesn’t continue its success into the later grades; in fact, it drops the ball quite dramatically. Vocabulary instruction is lacking, as is literary instruction, which is completely insufficient at the high school levels. Authors, texts, genres, etc.—all are noticeable only by their absence. The history of the English language is also missing. The Show Me State, happily, avoids generalities and obscure measurements, but its standards suffer from sundry content gaps. Time for Missouri to start filling some holes.

*MATHEMATICS—F

- *Show Me Standards, January 18, 1996*
- *Missouri’s Framework for Curriculum Development in Mathematics K-12, October 7, 2003*
- *The Framework Annotations, October 7, 2003*
- *Mathematics Grade-Level Expectations*
- *Achievement Level Descriptors: Mathematics, August 26, 2003*

We wish the Show Me State would show us exactly what it expects its students to know about math. Despite being strikingly brief, the state’s standards are vague and inflated, with a tendency toward absurd statements, such as, “Evaluate the logic and aesthetics of mathematics as they relate to the universe.” The vagueness continues even when the state makes a stab at defining what it wants students to know, such as the tenth grade directive to “use real numbers to solve problems.” Overall, the Missouri grade-level expectations lag behind those of better state standards by a year or more. Students are not expected to distinguish integers as even or odd until fourth grade. They don’t add fractions until sixth grade, or multiply or divide fractions until seventh grade, and scientific notation doesn’t appear until tenth grade—three or four years too late. Major high school topics are missed completely and, overall, the standards simply have too much fluff and too little content.

*SCIENCE—C

- *Missouri’s Framework for Curriculum Development in Science K-12, 1996*

Missouri released new standards in November 2005—too late for our review. Missouri’s science standards have complex, but mostly transparent, organization. Life science gets a good treatment and evolution is fully covered. Students are admirably provided with primary articles and asked to read and interpret them. Earth science does an acceptable job, but occasionally suffers from its “themes” approach, e.g., “destructive and constructive forces.” Most aspects of science don’t fit into such a categorical dichotomy. At times, Missouri is incredibly ambitious in its standards: “Variations in the physical conditions and chemical composition of soil are a result of the type of rock form which it came, climate, the process by which it was deposited, and biological activity.” But other times, the document disappoints. There is simply not enough physics or chemistry content, for example. A little more work is needed to make this document more comprehensive.

*U.S. HISTORY—F

- *Missouri’s Framework for Curriculum Development in Social Studies K-12, 1996*
- *Content Specifications for Statewide Assessment by Standard: Social Studies Grades 4, 8, & 11, 1999, Missouri Department of Elementary and Secondary Education*

Missouri’s standards begin by recommending, among other strategies, “a multi-sensory approach to teaching and learning.” Not an auspicious beginning, especially for those with poor olfactory abilities. Even more ominously, the framework also explains that it is “not detailed lesson plans or curricula” and that it is not mandated by state law or required by local districts. The sample learning activities provided are often trivial: Grade 5–8 students should, “Observe television programs with settings in the past ...” (Cheers or Happy Days, perhaps?) and high school students should “appreciate some technology invented during some historical era, avoid the technology for an entire weekend and keep a log of observations.” (Day 1: I’ve noticed that, without soap, my body—especially feet and hands—seem to grow dirtier and smell more offensive. My girlfriend appears annoyed.) Missouri’s standards are short on content and they seem to spend more time on particularly inane activities than they do on actual U.S. history content.

*WORLD HISTORY—F

- *Missouri Student Assessment: Social Studies, 1996*

What are Missouri students expected to know when it comes to world history? You won’t find the answer in the content standards. Missouri ranked last among the 49 states with standards, with good reason. The entirety of world history is covered in a set of benchmarks taking up a single column of text on a single page. The eighth-grade benchmark for Africa, for example, consists of two bullet points: “empires” and “agriculture, arts, gold production, and the trans-Saharan caravan trade spread of Islam into Africa.” This “list” is hardly a sufficient outline of expectations. The Show Me standards instead expect the districts to conjure up appropriate curricula. Considering the utter lack of guidance and direction in these standards, perhaps the standards should be renamed something more appropriate—say, the Figure It Out Yourself standards.

MONTANA REPORT CARD

SUBJECT	2000	2006
English	F	F
U.S. History	—	F
Geography*	—	F
Math	D	C
Science	D	F
OVERALL GRADE	D-	F

*World History for 2006

ENGLISH—F

- *Montana Standards for Reading, September 2000*
- *Montana Standards for Literature, October 1999*
- *Montana Standards for Media Literacy, October 1999*
- *Montana Standards for Speaking and Listening, October 1999*
- *Montana Standards for Writing, October 1999*
- *Progress Towards Standards: Reading Curriculum Standards, Updated Sept. 16, 2003*
- *Montana Standards and Expanded Benchmarks for Reading*
- *Montana Comprehensive Assessment System (MontCAS, Phase 2): Progress Towards Standards (PTS) Assessment Test, 3–12, Sept. 3, 2003*
- *Montana Comprehensive Assessment System: Reading Grade level learning expectations, 3–8, 10 & upon graduation, August 2003*

Montana’s standards are clear. But that clarity serves only to highlight the documents’ lack of substance. To wit: Montana’s English standards are insufficiently specific, comprehensive, demanding, or measurable. There is little to no observable increase in difficulty from grade level to grade level, there is no specific literary content for higher grade levels, and there is no observable process or instruction for teaching the basics of reading or writing. In short, the state needs to go back and start again, perhaps using another state’s standards (Massachusetts, Louisiana?) as its guide.

*MATHEMATICS—D

- *Standards for Mathematics, October 1998*

Montana’s math standards are as wide open as the state itself, but that’s not a good thing. These documents are so vague as to be useless in many instances, such as the directive to, “Recognize and investigate the relevance and usefulness of mathematics through applications, both in and out of school.” Students aren’t expected to memorize single-digit arithmetic facts, standard algorithms, the quadratic formula, or the Pythagorean Theorem. Calculators are introduced in the fourth grade—in fact, there is no explicit sign that anything demanded by these standards can’t be accomplished with calculators—and too much emphasis is given to probability and statistics.

*SCIENCE—F

- *Montana Standards for Science, 1999 (Montana’s new standards were due out in February 2006)*

These standards are not nearly comprehensive enough. They contain such a lack of information that no curriculum developer or textbook manufacturer could possibly glean anything valuable from them. The entire document is too general and it prefers such vague words as analyze, infer, and investigate to anything factual. And what happened to high school chemistry? Sorry, Montana. Try again (if you need help, ask Massachusetts).

U.S. HISTORY—F

- *Montana Standards for Social Studies, 2000, Montana Department of Education*

These standards have some worthy elements, but their convoluted organization renders them all but useless. Another big problem: excessive generality. Montana expects its students to “analyze the significance of important people, events and ideas,” yet it never mentions any important people or ideas. Scattered topics—the American Revolution, the Battle of Little Bighorn, immigration, etc.—are mentioned, but they are never placed in a sequential order that might establish a bit of coherence between subjects. The documents also assess

students' performance, delineating a ranking hierarchy that ranges from "Advanced" at the high end to "Novice" at the low. But, because the standards never, ever establish what information should be taught and learned in its classrooms, it's worth wondering how Montana can really judge students' performance. Very little of value is found in this standards document.

WORLD HISTORY—F

- *Montana Standards for Social Studies, 2000*

A handful of gems lies buried deep within the Treasure State's curricular framework for social studies. Montana does well by asking students to analyze the historical impact of technology (providing several good examples) and insisting that its students incorporate geographic knowledge—including human settlement patterns, global distribution of resources, demographic trends, and the physical characteristics of the Earth—into their understanding of world history. Unfortunately, the rest of the framework is so utterly devoid of content and value that these gems are rendered valueless by association. The "content standards" fail to provide even the most basic chronology of world affairs or substantive mention of a single culture, historical event, period, pattern, or historical narrative. Montana would be wise to jettison this document and make the standard makers walk the plank.

NEBRASKA REPORT CARD		
SUBJECT	2000	2006
English	A	C
U.S. History	C	C
Geography*	F	D
Math	C	D
Science	B	F
OVERALL GRADE	C+	D+
*World History for 2006		

ENGLISH—C

- *Nebraska Reading/Writing Standards, Grades K–12, adopted September 7, 2001*
- *STARS A Summary, June 2002*
- *STARS Update #14, March 2004*
- *Assessment Portfolio Instruction, March 2004*

Nebraska's English standards contain some innovative portions, such as their two content-rich indicators for literary study addressing Nebraska authors and historical figures important to the state and nation. But these documents also contain some worrisome characteristics, such as having a single four-grade span from 5-8 for all areas but reading, and from 9-12 in all areas. This doesn't leave a lot of room for detail, nor does it allow for the standards to detail improvements from grade to grade. Another worrisome trend is that many of Nebraska's standards are not measurable. For example, students are expected to "use active listening, showing consideration of others' contributions to discussions," "ask for clarification when messages don't make sense," etc. Such banal instruction should not be included in an English standards document. It should be noted that Nebraska's standards are only meant as a guide to help local, autonomous communities that draft their own standards. Still, one must believe the state could set a better example.

MATHEMATICS—D

- *Content Standards (appendix) Nebraska Department of Education, RULE 10, Regulation and Procedures for Accreditation of Schools, Title 92, Nebraska Administrative Code, Chapter 10, 2004*

Nebraska recently adopted new math standards, but they weren't an improvement. The content is sketchy, the writing awkward, and the standards often manage to mix the important and the trivial, with no distinction made between the two. Students in the younger grades, for example, spend a great deal of time measuring, but don't do many calculations with those measurements. Too many of the geometry standards involve nothing more than naming shapes, with none of the shapes actually defined, and the crucial topics of congruence and similarity appear only as words on a list, with no explanation of why they are important or how they are to be used. Most of the high school algebra standards are weak. And Nebraska's emphasis on probability and statistics is striking, even in a national set of standards that dwell far too much on these topics—40 percent of the twelfth grade standards, for example, deal with these topics.

SCIENCE—F

- *Science Standards Grades K–12, 1998*

Samuel Beckett took minimalism to new heights of artistic expression, stripping his literary works down to their most basic components. Unfortunately, the approach doesn't work nearly as well for Nebraska's science standards. The content is too sparse at all levels and vagueness abounds. The document never mentions mathematical problem solving. And Nebraska nurses an unhealthy addiction to the word "investigating" (the term is pervasive). The standards ask students, for example, to investigate whether natural selection provides a scientific explanation of the fossil record and the molecular similarities among diverse species of living organisms. Well, yes. That's exactly what the entire curriculum unit is about—there is no investigation and the use of "whether" is insincere. But, where explanation of this statement should follow, none does. It is this way throughout, with significant explanation sacrificed as if students are capable of divining the importance and inter-workings of scientific processes on their own. They are not; that is what standards are for.

U.S. HISTORY—C

- *Nebraska K–12 Social Studies Standards, 1999, Nebraska State Board of Education and Department of Education*

This document is organized around "ten instructional themes," some of which are surpassed in their vagueness only by their vapidness (e.g., "people, places, and environments"). Nonetheless, Nebraska has managed to insert some solid historical content into standards. Students in grades 5-8 are given a chronological survey of U.S. history, from the pre-Columbian period to the modern era. Most topics are adequately covered. The only major gaffe occurs in the standards' examination of the U.S. Constitution, the primary roots of which, students learn, were derived from the Iroquois Confederation and its "Great Binding Law." A magnificent story, but patently false. Indeed, there is no evidence that the Iroquois had any, much less primary, impact on the drafting of the U.S. Constitution. Topics from 1877 to the present are developed less well and they skip over major events. The high school survey, which rehashes the 5-8 model, does so in detail, but it's uneven in the events it covers and those which it skips.

WORLD HISTORY—D

- *Nebraska K-12 Social Studies Standards, 1999*

A reader of Nebraska's world history standards can be forgiven for wondering: Where's the beef? World history instruction doesn't begin in the Cornhusker state until middle school, despite the fact that students are expected to leave eighth grade with knowledge of global events from the earliest civilizations to 1000 C.E. Unfortunately, this document contains such little specific information that meeting that already unattainable goal is rendered doubly impossible. Roman and Greek civilizations get better treatment, but non-Western civilizations are covered in an inexcusably shoddy fashion. China, India, and Japan are not discussed fully, and Africa is virtually ignored. High school students study world history after 1,000 C.E., but their examination is none too deep and lacks any type of specificity that could prepare them for college-level work. Add to that the factual inaccuracies that permeate the document. Nebraska has much work to do.

NEVADA REPORT CARD

SUBJECT	2000	2006
English	B	B
U.S. History	C	C
Geography*	C	D
Math	C	C
Science	C	D
OVERALL GRADE	C+	C-

*World History for 2006

ENGLISH—B

- *Nevada English Language Arts: Content Standards, adopted March 2001 (Feb. 21, 2003 Edition)*
- *Performance Level Descriptors English/Language Arts, 2, 3, 5, 8, & 12*

Nevada's standards are quite good. The state divides its English document into grade-level expectations for K-8, with another standard for grade 12. The prose is fresh, clear, and intelligible; the standards are measurable and show increasing difficulty as the grades grow higher. Phonics and vocabulary is addressed in a comprehensive and appropriate way at each level. The literature standards, unfortunately, show definite weakness. For one, they lack any cultural or historical specifics. They fail to address the nature, dynamics, and history of the English language, too. These are problems which can be easily remedied and one can bet that Nevada, so close to producing first-tier English standards, won't let the opportunity pass it by.

*MATHEMATICS—C

- *Mathematics Standards, February 25, 2003*
- *Performance Level Descriptors: Mathematics*

Nevada's math standards are mediocre, generally solid in the lower grades only to degenerate in the upper grades. Elementary students are expected to memorize basic number facts, and whole number and decimal arithmetic are well developed through the fifth grade. Best of

all, calculators play only a minor role throughout. But in the upper grades, coverage of algebra is poor, and the twelfth grade standards—which are the only standards at all for high school—are pitched at a low level. Many of these standards really belong at the middle school level and amount to little more than, for example, converting between the customary and metric systems or calculating interest—tasks more appropriate to the seventh or even sixth grades. Additional standards for problem solving, mathematical communication, mathematical reasoning, or mathematical connections offer little guidance to teachers as to how to integrate these important topics into the context standards, or how to present them in a classroom.

SCIENCE—D

- *Nevada Science Standards, 2005*

Nevada's science standards are simply too thin and too scanty. The document is quite well structured, but quite poorly executed. Statements can be far too sweeping: "Students know the properties that make water an essential component of the Earth system," for example. Omissions are not infrequent. Most of the rock cycle is missing. Cosmology is less than basic. Chemistry coverage is, simply, insufficient. Mathematical problem solving is nowhere to be found. Nothing is quantitative. Ditto life sciences, handled through generalizations, and some of those generalizations are wrong. For example, the standards read, "Students know that multi-cellular organisms can consist of thousands to millions of cells working together." Try billions or trillions. There is too much of this, and not enough solid content—D.

U.S. HISTORY—C

- *Nevada Social Studies Standards: History, 2000*

Nevada presents some U.S. history to its youngest students, which is fine. But it isn't until eighth grade that the state begins to teach the subject in earnest. One expects, after such a wait, that the Silver State would put forth rigorous history standards. This is not the case. The authors of these documents do not understand cohesion. Instead of presenting information in a logical fashion, Nevada's standards jump all over the place.

After eighth grade, students are asked to “describe the African slave trade,” then they are flung directly into the origins of the American Revolution. What happened to the development of democratic institutions and values in the colonies, or the origins of slavery in seventeenth-century America? And while eighth graders receive a good background in social, economic, and intellectual history, political history falls off the map. Jacksonian democracy and the evolving political crises over slavery, where art thou? In twelfth grade, the problems continue; there is no mention, between the election of Lincoln through the Cold War, of the Democratic or Republican Parties. We’re still looking for FDR, too. Nevada rolls the dice on its children’s future.

WORLD HISTORY—D

■ *Nevada History Standards, 2000*

Nevada’s history curriculum is a tangential historical examination at best. Although the state’s standards do put forth introductory sentiments that note the importance of students learning to “develop an appreciation of the contributions made by all nations,” the standards themselves do not address that goal. The primary grades receive very basic instruction, learning random facts without context. It is not until the eighth grade that any serious attempt at world history education is attempted. The eighth grade standards do a mediocre job at best. They place, for example, great importance on studying the origins, traditions, customs, and spread of major Western and Eastern world religions, but they fail to integrate that study with international political issues or historical analysis. And, while the twelfth grade standards are far more detailed, they still fail to achieve the depth and sophistication they should. Overall, Nevada offers up a marginal history examination that cannot possibly give students the preparation they need and deserve.

NEW HAMPSHIRE REPORT CARD

SUBJECT	2000	2006
English	D	B
U.S. History	C	F
Geography*	B	D
Math	C	F
Science	F	F
OVERALL GRADE	C-	D-

*World History for 2006

*ENGLISH—B

- *English Language Arts Curriculum Framework, K-12*
- *Toward an Engaged Literacy: 7-12 Addendum to the New Hampshire K-12 English Language Arts Framework, December 1999*
- *Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Reading in Grades 2-5, February 2004*
- *Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Reading in Grades 5-8, February 2004*
- *Draft Test Specifications Tri-State New England (TSNE) Reading Assessment, December 2003*
- *Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Writing in Grades 3-8, February 2004*
- *Draft Test Specifications Tri-State New England (TSNE) Writing Assessment, December 2003*
- *Released Test Items, 3, 6, & 10*

New Hampshire’s English standards are unique. Its new grade-level expectations were developed in conjunction with, and also for the use of, Rhode Island and Vermont. Their efforts deserve applause, because they illustrate how good standards need not be limited to just one state—often, collaboration yields praiseworthy results. One excellent component is New Hampshire’s detailed descriptions of the types of literature its students should read. The standards mention not only American and British literature, but also throw their weight behind the importance of reading Caldecott and Newberry award-winning books. New Hampshire ought to go further, though, by providing a list

of titles and authors that embody the positive literary characteristics it lauds. The Granite State also provides only one set of standards for grades 9-12. This can work if that standards set is unusually comprehensive, but in this case (where the document seems wanting for content), New Hampshire would do better to produce more detailed standards. After all, a huge difference exists between the literary comprehension of 15- and 18-year-olds. On the whole, though, the state covers reading, writing, vocabulary, and literature with a more than adequate perusal.

*MATHEMATICS—F

- *K-12 Mathematics Curriculum Framework, February 1995*
- *Addenda, Grades K-3, 4-6, and 7-10, 1994-1996*
- *Draft K-8 New Hampshire and Rhode Island Local and NECAP Grade Level Expectations (GLEs), June 6, 2004*

New Hampshire, along with Vermont and Rhode Island, have joined together to write a common set of Grade-Level Expectations; the document has done little improve the state's mediocre Mathematics Framework. Students use calculators to do even simple arithmetic in the first grade, a focus that continues into middle school. Middle school students use manipulatives to learn fractions, while high schoolers are using models to explore rational numbers. The common Grade Level Expectations are convoluted, frequently disorganized, and often cram topics together into run-on sentences that require teachers to unpack what's happening before they can begin to figure out what to teach. Slapping one weak set of standards on top of another, as it turns out, is no solution.

*SCIENCE—F

- *New Hampshire K-12 Science Curriculum Frameworks, 1996*

These standards seem devoted to confusing the reader and flooding him or her with generalities and banalities. To make a long, unfortunate story shorter—New Hampshire's science standards contain precious little of redemptive quality, yet quite a lot of damaging effect. That tenth grade chemistry is presented without anything quantitative and that the qualitative statements are misleading and vacuous is almost unbelievable.

Believe it. Physics is just as bad as chemistry—hardly anything qualitative. Subjects are introduced randomly. What a mess! New Hampshire's students deserve better than this sorry excuse for a standards document.

*U.S. HISTORY—F

- *K-12 Social Studies Curriculum Framework, 1995*

New Hampshire does not put forth a coherent U.S. history survey before the tenth grade. This is a problem. A larger problem is that the New Hampshire standards are frustratingly general and vague, and much of the document is laden with ideological and social sentiments. There is no indication that by the time students arrive at the American Revolution they will have learned anything about democratic political institutions, ideas, and values that developed in colonial America. Anonymity also rules; rarely are names of real people ever mentioned. The "formation of our national government" nowhere references a person named "Washington," for example. Twelfth grade history echoes the tenth grade standards in style and lack of scope. The Granite State should take its standards more seriously.

WORLD HISTORY—D

- *New Hampshire Social Studies Curriculum Frameworks, 2006*

New Hampshire's world history standards occur as part of the state's social studies framework. World history receives slight treatment, garnering but one explicit standard. Implicit world history material appears elsewhere in the standards, though not without serious deficiencies. By sixth grade, students are required to understand the "distinctive characteristics of major ancient, classical, and agrarian civilizations," but those characteristics appear nowhere in the standards. Why not detail what, in fact, they are? Such lack of specificity is everywhere in these documents. Thus, even when the state succeeds in turning attention to often-neglected, but important, history topics (such as the origin and influence of major world religions), it spoils the party by not going into detail. Yet, the Granite State has placed online a proposed draft for new, revised frameworks. The revisions are quite good—let's hope New Hampshire adopts them sooner rather than later.

NEW JERSEY REPORT CARD

SUBJECT	2000	2006
English	F	C
U.S. History	F	F
Geography*	D	B
Math	C	D
Science	A	B
OVERALL GRADE	D+	C-

*World History for 2006

*ENGLISH—C

- *New Jersey Language Arts Literacy Curriculum Framework, Fall 1998*
- *Test Specifications: Directory of Test Specifications and Sample Items for ESPA, GEPA and HSPA in Language Arts Literacy Core Curriculum Content Standards, April 7, 2004*

New Jersey has done some tweaking of its earlier standards documents and the effort shows, although the state still has far to go. A good move was to switch from grade-span to grade-level expectations, which these English standards now boast for grades K-8. High school retains its own standards set. The Garden State has done a commendable job with its elementary and middle school documents. They contain a noticeable up-tick in difficulty from year to year, and they cover the basic reading and writing components well. High school, however, is a different story. New Jersey's single set of high school standards isn't up to the task and doesn't adequately reflect the vast chasms that often separate the intellectual comprehension of a ninth and twelfth grader. Further, the high school standards are poorly written (especially disappointing when the subject in question is English) and they show little to no interest in providing Jersey students with any literary information. The existence of American literature is not acknowledged. So, New Jersey receives 1.5 cheers for making improvements over its existing standards, but inarguably more work is needed.

MATHEMATICS—D

- *New Jersey Core Curriculum Content Standards for Mathematics, 2002*
- *Mathematics Curriculum Framework, 1996*
- *Questions and Answers Related to the Revised Core Curriculum Content Standards in Mathematics, July 2, 2002*

The use of calculators is endemic in America's schools, but perhaps no state emphasizes them as much as New Jersey. The state's math standards assumes that not only will Kindergarteners use calculators to "explore" simple arithmetic, the state explicitly seeks to reinforce the use of calculators by forcing high school students to use manipulatives and models such as algebra tiles to learn fundamental concepts such as polynomials and variables. Students in even the first grade are expected to use calculators on state exams and are actually tested not simply on content but on their familiarity with various manipulatives—as if facility with blocks is as important as knowing how to subtract and carry. New Jersey's content coverage is poor in the extreme, but we need hardly concern ourselves with it: the state's entire approach is fundamentally anti-mathematical.

SCIENCE—B

- *New Jersey Core Curriculum Content Standards for Science and New Jersey Framework, 2004*

Whoa! These standards are weighty. But where other standards are doomed by their excessive length, New Jersey's manage to escape relatively unscathed. Sure, they're long, and that will dissuade anyone who isn't required to read them from undertaking the labor. But there's much good here. The framework is clear, divided by grade clusters. These clusters correspond with the standards and actually introduce their own standards in some cases. That can be confusing, but it isn't a major problem. Life sciences receives a noteworthy treatment and evolution gets the treatment it needs and deserves. Laboratory activities are included, too, and many are put together with evident care and understanding. Yet chemistry content is sketchy, which is surprising to discover in a document of this length. On the whole, with a bit more editing and some added content in thin areas, New Jersey would boast an excellent set of standards.

*U.S. HISTORY—F

- *Core Curriculum Content Standards, 1996*
- *New Jersey Social Studies Curriculum Framework, 1999*

New Jersey’s standards declares, “This is not a coverage list” [emphasis in original]. No, it certainly is not. K-4 students, for example, can visit the Old Barracks Museum in Trenton and “decide” whether to join the Continental Army or remain loyal to the English Crown. Unfortunately, the framework doesn’t provide a coherent curriculum in U.S. history that would empower students with the knowledge required to tackle such a difficult decision. Those fourth graders who choose to rebel against England, therefore, do so without understanding that they could be hung for their sedition—thanks a lot, New Jersey. Similar foolishness grips high school history instruction. After discussing Robert E. Lee’s decision to order Pickett’s charge, students hold a classroom trial “to decide whether the General was guilty of lack of judgment and should have been relieved of his command.” Such exercises are damaging enough on their own, but the fatuity behind them is compounded when they exist in place of actual, historical instruction. We hope that New Jersey’s students somehow find a way to fill the void of U.S. history knowledge from these standards.

*WORLD HISTORY—B

- *Social Studies Curriculum Framework, 1999*

New Jersey’s social studies standards weigh in at a whopping 600 pages, but their bulk does little for their comprehensiveness. Instead, most of the standards focus on activities built around historical events. While many of these activities are quite good, one cannot help but think the space could be better spent—say, on content. Not before eighth grade does the state specifically address world history. Then, the standards cover the major world civilizations in sufficient detail and ancient religions are given a satisfactory examination, too. Notable, too, is the Garden State’s approach to African and Asian history, which is far more comprehensive than most other states’. High school students cover world history from 1400 to the present. Many topics are given good coverage here; sadly, many others are not. Too often, New Jersey succumbs to vagueness, such as listing “nationalism and propaganda” as two causes of WWI. This occasional drift toward partial definition and explanation renders these standards merely better than average.

NEW MEXICO REPORT CARD

SUBJECT	2000	2006
English	D	D
U.S. History	F	F
Geography*	F	D
Math	F	B
Science	F	A
OVERALL GRADE	F	C-

*World History for 2006

ENGLISH—D

- *New Mexico Curriculum Framework: Language Arts, adopted June 16, 2000*
- *New Mexico High School Standards Assessment (NMHSSA) Test and Item Specifications, March 17, 2003*
- *District Test Coordinator Training Site*
- *Benchmark, Performance Standards Addressed, Corresponding Item and Test Specs*

While New Mexico’s English standards may have some fine features, those of less-polished pedigree are in far greater supply. Put simply, a good deal of these documents is unintelligible and not measurable. For example, in first grade students are expected to “describe events related to other nations and/or cultures” and in eleventh grade to “analyze the clarity and consistency of literary works or essays on a topic.” These are empty words and they don’t really make much sense. The topics of New Mexico’s content sections are similarly inscrutable. Coherent subcategories are eschewed for vague, overarching topics that could, in fact, include almost anything: “writing and speaking,” or “literature and media.” In truth, they do address almost anything. The first category covers both literary and non-literary reading in many of its performance standards, and those standards are further divided into subcategories not clearly defined. The benchmarks are superfluous and literary study is given an unacceptably light survey. Were it not for New Mexico’s English standards’ fine set of guiding principles and good primary grade components, an F would be warranted.

MATHEMATICS—B

- *Mathematics Content Standards, Benchmarks, and Performance Standards, June 2002*

New Mexico, a consistent bottom dweller in previous reviews of state math standards, has done its students a tremendous service with its most recent revision, which is generally clear, coherent, and features solid, if not stellar, coverage of important topics. Elementary students cover the base 10 number system and are expected to know the standard algorithms. The arithmetic of fractions, decimals, and percents are thoroughly addressed and the upper grade coverage of algebra and geometry are solid. Calculators are only minimally present and manipulatives are barely there at all. The standards could use an editor—there is some unclear language and some of the reasoning development seems out of place—but, in general, this is a revision to be proud of.

SCIENCE—A

- *New Mexico Science Content Standards, Benchmarks, and Performance Standards, 2003*

New Mexico presents science standards by grade from kindergarten through grade 8, and then in a single span for grades 9-12. New Mexico does a particularly admirable job building on information from grade to grade—a component sorely missing from many states' standards. Sometimes they overreach. Fourth graders are asked to, "Describe how some waves move through materials (e.g., water, sound) and how others can move through a vacuum (e.g., x-ray, television, radio)." But, on the whole, New Mexico makes cogent decisions and includes good material. Chemistry has some soft spots, but life science makes up for it with its full and meaty treatment. In science, the state provides well-articulated sentiments burnished by good sense. These standards are good and they just nudge over the border into A territory.

U.S. HISTORY—F

- *New Mexico Social Studies Standards and Benchmarks, 2001, New Mexico Department of Education*

New Mexico's standards begin with the avowal to "Establish clear and high standards" [emphasis in original] for its students. The U.S. history standards the state puts forth, however, do no such thing. In fifth grade, New Mexico's students study U.S. history to 1877 and the standards are relatively complete. They fully cover necessary points about early colonization, and they make sure to note how both democracy and evolution evolved in the United States. Yet, in what will become a systemic misrepresentation throughout the grades, New Mexico's fifth grade standards put forth the contributions of the Iroquois Nation as the foremost influence in the development of American democracy. This is blatantly untrue. At the high school level, New Mexico's standards slip badly. They are sketchy and incomplete: Woodrow Wilson garners mention only in relation to Versailles, neither Hoover nor Roosevelt appear in the Great Depression section, and Jim Crow laws and civil rights are oddly stationed between the end of World War II and the origins of the Cold War. As they now stand, New Mexico's standards are not clear and they're not high. There's work to be done.

WORLD HISTORY—D

- *New Mexico Social Studies Standards and Benchmarks, 2001*

Students in New Mexico first encounter world history in the fifth grade, when they are asked to, among other things, "identify, describe, and explain the political, religious, economic, and social conditions in Europe that led to the Era of Colonization." Such expectations are vague, especially when the state gives little or no background information to supplement them. Things get better in sixth grade, when background material is supplied. Regrettably, this is one of the only levels at which New Mexico's standards give such support. High school is hardly an improvement. A mere twelve standards cover world events from the Renaissance to modernity. These are fleshed out with varying levels of detail; World War II is covered well, while imperialism is awash in vagueness. This sporadic inclusion of content is sure to diminish comprehension as New Mexico's students, trying to construct a chronological perception of history, have gaping holes in their understanding.

NEW YORK REPORT CARD

SUBJECT	2000	2006
English	C	B
U.S. History	D	A
Geography*	D	A
Math	B	C
Science	C	A
OVERALL GRADE	C-	B+

*World History for 2006

*ENGLISH—B

- *Learning Standards for New York State Learning Standards for English Language Arts, Revised Edition March 1996*
- *English Language Arts: Resource Guide Learning Standards*
- *English Language Arts Resource Guide Instructional Materials*
- *English Language Arts Resource Guide, 1997 Grades 4 & 8*
- *English Language Arts Item Map, 2004*
- *English Language Arts Resource Guide—Core Curriculum*
- *Early Literacy Profile: An Assessment Profile Part 1*
- *Early Literacy Profile: An Assessment Profile Part 2*
- *Student Work; Closing the Gap—Teacher to Teacher: Instructional Units from High School English Teachers, three installments Early Literacy Guidance PreK–3 Early Literacy Profile—Facilitator’s Guide, Part 1 & 2*
- *Essential Elements of Reading*
- *English Language Arts Regents Examinations*

These are strong standards—clear, measurable, and comprehensive in almost all areas. As the grades increase, so too does the material’s difficulty. The Empire State begins these English standards on the right note, admirably addressing phonemic awareness, phonics instruction, and fluency. Vocabulary development is not as strong, however, and there is a noticeable gap where history of the English language should be reviewed. American literature goes unmentioned. Then there are New York’s standards groupings, which are

incoherent and do not reflect current bodies of research. Take, for example, the “social-interaction standard.” One wonders, when confronted with the lack of rationale for its objectives and any way of measuring them, why this standard came to be. Authors, works, literary periods, and traditions are all absent. New York’s English standards start with a bang and end with a whimper. There’s enough top-notch material here to warrant a B, but just barely.

*MATHEMATICS—C

- *Mathematics Resource Guide with Core Curriculum, 1999*

New York’s math standards were in revision at the time of our 2004 review, and we hope the state has cleared up some of the many ambiguous and time-wasting activities that lard these standards. (An example: Students research the history of kites, design a kite in geometric shapes, and build a kite to fly in a contest—delightful, but hardly math.) While memorization of basic number facts is required in the lower grades, there is no mention of standard algorithms, and students are left to choose the “appropriate” algorithm to solve basic problems. The high school standards are solid, with good coverage of algebra and geometry—although students might be somewhat unprepared for these topics since there is weak coverage, especially of algebra, in the middle grades. Throughout, there is a strange focus on data collection, as if math were simple a form of social science, and students are directed to explore telephone polling and random surveys—topics only marginally relevant to a math education.

SCIENCE—A

- *New York State Learning Standards for Science, 1996*

New York sets out its science standards in grade spans: K-4, 5-8, and, for high school, as courses. Earth and space science are better than worse, but are noticeably thin in the earlier grades. Physical science does well and chemistry follows suit (although certain chemistry content is occasionally at a low level). Life science does best, though, and receives an unusual, but heartening, level of rigorous coverage. Not only are reproductive and developmental biology covered, but so is—surprisingly—immunology. Evolution is given its dues as the central structure of modern biology. On the whole, Empire State students have a good set of science standards from which to work.

U.S. HISTORY—A

- *Social Studies Resource Guide with Core Curriculum, 1999, The New York State Education Department*

The New York U.S. history standards are thorough, but not excessive, and they cover various cultural contributions without pandering. There are a few missteps and omissions, to be sure. It is unclear, for example, why students should put “the Gettysburg address in your own words and memorize part of it” or why the colonial history section includes so few names. But, overall, this document does a first-rate job of covering necessary material at the elementary, middle, and high school levels and giving the state’s students a useful and complete background of their country’s history. And, despite years of political pressure from those on the left and the right, New York’s standards writers were able to deftly navigate through shark-infested waters and produce fair and balanced history standards, which should draw ire from no one faction. Kudos to New York. Other states, take heed.

WORLD HISTORY—A

- *Social Studies Resource Guide with Core Curriculum, 2006*

New York starts its world history education in third grade with an introduction to global affairs. Students learn how world leaders are selected and they learn how human migration has affected various geographic regions. In sixth grade, students are introduced to the historical cultures of China and India. Later grades build on this comprehensiveness—not only do students examine the better-known subjects (the early river civilizations, for example), but they are exposed to other, lesser-known subjects, too (such as the migration of the Bantu people of Africa). The Empire State also wisely covers Eastern civilizations with care and the development of major religions is examined with surprising sophistication. High school students are asked to study such books as the Torah and the Bhagavad-Gita. The “Global Interactions” unit ties historical world political events with the cultural realm—authors such as Cervantes, Dante, Shakespeare, and Calvin are reviewed. Latin America receives excellent treatment, as well. Any youngster working his or her way through these standards will emerge with a grasp of world history that would be the envy of many.

NORTH CAROLINA REPORT CARD

SUBJECT	2000	2006
English	B	B
U.S. History	D	F
Geography*	C	F
Math	A	C
Science	A	B
OVERALL GRADE	B-	C-

*World History for 2006

*ENGLISH—B

- *English Language Arts Curriculum Grades K-12, Approved 1999*
- *English Language Arts Curriculum English I, II, III, IV, Approved 1999*
- *English Language Arts Curriculum*
- *The North Carolina Writing Assessment at Grades 4, 7, and 10 Trainer Manual*
- *Understanding the North Carolina Writing Assessment Scoring Model at Grades 4, 7, and 10*

North Carolina’s English standards are almost there, almost among the top state standards documents in the nation. But they fall just short and the first pitfall is their incoherent organizing scheme. The basic strands seem to be written language (reading/literature and writing), oral language, and other media/technology. These topics find themselves thrown in the English language arts curriculum, however, under five competency goals. An even more egregious mistake occurs in the high school standards, which contain no content-specific standards specifying keywords, authors, literary periods, and literary traditions to outline the essential content of the secondary school English curriculum. That said, North Carolina does a lot right. Among other virtues, the standards are clear, specific, and measurable, and they show increasing difficulty as students progress through the grades. They boast clear objectives on vocabulary and reading comprehension skills. By focusing on its content organization, and by including more literary detail, North Carolina will be well on its way to some high-flying standards.

MATHEMATICS—C

- *Mathematics: Standard Course of Study and Grade-Level Competencies, revised 2003*

North Carolina's recent revision of its standards proved to be a misstep. Formerly excellent, the state's math standards are mediocre all around—reasonably clear, but with weak content coverage and a heavy emphasis on patterns, probability, and technology. Long division, for example, is never mentioned in these standards and, while place value is addressed, there is no mention of carrying or borrowing. In the upper grades, Algebra is weak, missing important topics, such as completing the square and the quadratic formula, and the AP Calculus standards are well nigh incomprehensible. (“Demonstrate an understanding of limits both global and local,” reads one doozy of a directive.) Throughout, the state obsesses about the importance of technology and the use of manipulatives, while little attention is given to mathematical reasoning.

SCIENCE—B

- *Science Standard Course of Study and Grade Level Expectations K-12, 2004*

The best part of North Carolina's science standards is that, for most of the science content, the writers know the subjects they write about and they are able to introduce those subjects in grade-appropriate ways. Physics is a shining example. Unfortunately, the whole document is degraded by its devotion to process material—often, this comes at the expense of specific disciplinary content. Yet, most subjects manage to escape being bogged down in such an arrangement. Earth/space science presents ambitious material and life science does a mostly comprehensive job (although evolution is not mentioned until the ninth grade, only to then be treated in a somewhat cursory manner). Would North Carolina remove portions of its intrusive and mostly useless process material, this document would surely jump into the higher echelons of state science standards.

*U.S. HISTORY—F

- *North Carolina Social Studies Standard Course of Study, 2002, North Carolina Department of Public Instruction*

North Carolina's standards' most distressing problem, and there are many, is the sequencing of its U.S. history instruction. By design, North Carolina students are never taught the colonial period, the Revolution, or the ratification of the Constitution. Really. The elementary school portion of U.S. history instruction opens with North Carolina history and then, in fifth grade, moves on to an analytically and historically vacuous examination of the country's history that eschews names, dates, or places. Fifth graders are, for example, asked to “Compare and contrast the government of the United States with the governments of Canada, Mexico, and selected countries of Central America” and to “Recognize how the United States government has changed over time.” These are unreasonable requests. The only U.S. history survey course in the Tar Heel State's curriculum comes in eleventh grade and it begins in 1789. In addition to omitting the very foundations of the United States, the standards go on to bestow shoddy treatment on all events that follow. This is not a U.S. history education in any sense.

WORLD HISTORY—F

- *North Carolina Social Studies Standard Course of Study, 2003*

The biggest problem with North Carolina's world history standards—and it is a big problem—is that its sequencing and organization may do more to confuse students than enlighten them. Instead of presenting history chronologically, the Tar Heel State spends a lot of pages sequencing the standards by region. Such an approach is meant to prevent teaching overlapping material, but, in reality, it does just the opposite. The high school standards do not wholly follow such a regional approach, but they suffer just as much from lack of specificity. North Carolina high school students learn world history through general cultural currents, which is as vague as it sounds. But the entire purpose of these standards is compromised by the illogical organization they embrace. The state would do well to try again.

NORTH DAKOTA REPORT CARD

SUBJECT	2000	2006
English	F	C
U.S. History	F	F
Geography*	F	F
Math	B	C
Science	F	D
OVERALL GRADE	F	D

*World History for 2006

*ENGLISH—C

- *The North Dakota Standards and Benchmarks Content Standards—DRAFT, K-12, January 2004*
- *North Dakota Standards and Benchmarks Achievement Standards—English Language Arts Curriculum Framework, 1996 North Dakota Calibration Pack, Reading Test Grade 4, 1998/1999*
- *North Dakota Calibration Pack, Reading Grade 8 Pack A, 1998/1999 North Dakota Calibration Pack, Reading Test Grade 12 Pack A, 1998/1999 North Dakota Calibration Pack, 1998/1999*
- *North Dakota Standards and Assessment Development Protocols, November 2002*

North Dakota presents its standards by grade level, from K-12. The state covers all areas of English language arts more than adequately and it boasts good coverage of beginning reading. These standards are clear and measurable and it's easy to discern that an increase in grade level corresponds to an increase in difficulty. The big deficiency is literature; the standards do not mention American literature, for one, and they do not give lists of authors or titles for different educational levels. This is unfortunate—especially for a state that boasts standards at every grade level, such content oversights are inexcusable. Rather than acting as a uniting force, North Dakota's English standards are sure to divide as each teacher is forced to create an individual curriculum with little content guidance from the state.

*MATHEMATICS—C

- *North Dakota Mathematics Standards and Benchmarks: Content Standards-Draft, January 2004*

One thing you have to give to North Dakota is that the state's math standards are easy to read, presented in a digestible format in five simple strands. The development of arithmetic in the elementary grades is strong, with students memorizing basic number facts and calculating with whole numbers, decimals, and fractions at the appropriate ages. Standards for measurements, which tend to be problematic in other states, are direct and grade appropriate. Algebra and Geometry are nicely covered in the upper elementary years. But North Dakota's solid approach disintegrates in the high school years, with weak standards for Algebra and Geometry that miss crucial topics and suffer from a general inability to describe exactly what students are being asked to do. As just one example, students are expected to use "geometric models to gain insights into, and answer questions in, other areas of mathematics, other disciplines, and other areas of interest: e.g., art and architecture," without learning critical topics in geometry!

*SCIENCE—D

- *Science Content Standards for Grades K-12, 2005*

This document contains eight broad standards covering grades K-8, and the spans 9-10 and 11-12. But some of these standards are less than encouraging. For example, students are supposed to "Use appropriate tools and techniques to gather and analyze data." Unfortunately, no possible tools or techniques are suggested and readers are left to wonder on what topic data is being gathered. Another example: "Understand how views and attitudes have influenced the development of science (e.g., religion, previous knowledge, cultural, superstition, folklore, legends)." What's the point? Chemistry is a disaster, especially typical high school chemistry, which escapes coverage. Earth/space science does better. After a slow start, it touches most of the usual bases. Although, the section is not without its outrageous statements—ninth and tenth graders will "analyze the past evidence of natural hazards and geologic events to predict future hazards with few, if any, errors." It is such stuff that overshadows the good content North Dakota's standards occasionally put forth.

U.S. HISTORY—F

- *Social Studies Standards, 2000*
- *Standards and Bench marks: Content Standards, Social Studies, 2000, North Dakota Department of Public Instruction*

North Dakota’s U.S. history standards are designed “to provide a framework from which teachers of North Dakota can design their social studies curriculum.” The ominous clouds begin to gather, and then the storm is unleashed upon North Dakota’s unsuspecting students. Random content standards and pieces of historical knowledge are flung about indiscriminately, forming a helter-skelter U.S. history collage. The specific core of knowledge for high schoolers is thus: “Sectionalism, nationalism, revolution, conflicts and foreign policies, Native American groups, exploration, colonization, Revolutionary Era, Jacksonian Democracy, Westward Expansion, [Civil War? Nope.], Reconstruction. . . .” Truly a mess—and nothing by which to teach students. These are not standards. They are collected topics. North Dakota can do far better than this.

WORLD HISTORY—F

- *Social Studies Standards, 2000*

Readers who encounter the goals of North Dakota’s Social Studies Standards may feel reassured. The state hopes to “Overcome ‘presentism’ and give students a sense of their place in time and enable them to adapt to societal changes that will occur in their lifetime.” But implicit in that statement is that history must be made personal, that it cannot be taught as an end in itself. This view is damaging and it manifests itself throughout the document. For example, primary school students are introduced to the world when North Dakota encourages them to “trace their bare feet and use the shape to create a map of a fictitious continent.” Such is what takes the place of specific historical content. The standards contain no sequenced, cumulative approach to world history. The state’s idea of specific content high school students should master includes “early communities” and “great empires (e.g., Roman and British).” That’s about as detailed as it gets. Meanwhile, children trace their feet.

SUBJECT	2000	2006
English	D	C
U.S. History	D	D
Geography*	D	F
Math	A	D
Science	B	B
OVERALL GRADE	C	D+

*World History for 2006

ENGLISH—C

- *Academic Content Standards K-12 English Language Arts, adopted December 11, 2001*
- *Academic Content Standards K-12 English Language Arts: Benchmarks and Indicators by Standards*
- *Academic Content Standards K-12 English Language Arts: Benchmarks and Indicators by Grade Level*
- *English Language Arts District Alignment Tool*

In most areas, Ohio does a relatively good job with its English standards. They are clear, organized in an adequate manner, and treat vocabulary, English language arts, and early writing instruction with the necessary care and detail. But these documents also require not inconsequential strengthening and almost all of it should come in the realm of literary study. First, distinctions need to be made through the grades among the three major categories of imaginative literature (fiction, poetry, and dramatic literature) with respect to their distinctive elements and devices. Second, many of the standards for literary study are vague and pretentious (“describe the thoughts, words, and interactions of characters”) or suggest that the English class may be turned into a pseudo-social studies class (“analyze the historical, social and cultural context of setting.”) And, unsurprisingly, the Buckeye State does not provide content-rich and content-specific standards pointing to key authors, works, literary periods, and literary traditions in classical, British, and American literature that outline the essential content of the secondary school English curriculum. Literary instruction is the primary area on which Ohio should concentrate its standards-improvement efforts, which will go far toward bring Ohio’s English standards up to an admirable level.

MATHEMATICS—D

- *Academic Content Standards, December 11, 2001*

Ohio revised its math standards in 2001 and it turned out to be a serious mistake. There are huge holes in these documents, especially in Algebra and the algebraic indicators, where completing the square and the quadratic formula are missing—crucial topics, both. Geometry is nicely developed (though there is an egregious misstatement about pi in one standard that should be corrected immediately). Long division is also missing, though students “learn” irrational numbers by punching buttons on a calculator. There are serious problems with arithmetic, especially multiplication and division of fractions, with the writers sometimes including topics before important prerequisites have been established. And, as with almost every state, Ohio makes a fetish of probability and statistics, introducing it way too early and covering it in far too much detail.

SCIENCE—B

- *Academic Content Standards, Science, 2003*

The sheer mass of Ohio’s science standards ensure that it will be read by only those who must. Part of the problem is the Buckeye State’s needlessly repetitive and complicated organization—strands, benchmarks, and grade level indicators. Just give us the standards, already! When one is able to break through the bulk, the document yields good stuff. Life science has few errors and hits most of the important topics. Same, too, for physics, which only falters occasionally from lack of precision. Chemistry doesn’t present such a sunny picture, however, and the subject-level content is kept at a perennially low level. On balance, though, Ohio could make these standards top-notch by beefing up the chemistry section and investing in a good editor.

U.S. HISTORY—D

- *Ohio’s Social Studies Academic Content Standards, 2002, Ohio Department of Education*

This document is divided into six “Content Standards,” of which history is but one, with “People in Societies, Geography, Economics, Government and Citizenship Rights, and Responsibilities.” Fourth graders start with Ohio’s history and move into “Regions and Peoples of North America” in fifth grade, in which students are expected to learn the perspectives of various cultural groups. A list of those groups—which, along with the usual suspects, also includes Appalachians and Puerto Ricans—is provided, helping fifth graders to realize that perspective is an immutable product of ethnicity (and, apparently, living in the West Virginia mountains). Bravo, Ohio. Eighth graders receive a more thorough picture of U.S. history, but it isn’t without serious omissions. Tenth graders, who cover U.S. history from Reconstruction through the Cold War’s end, have a more complete set of guidelines. A large problem with Ohio’s standards is their fragmentation. Instead of presenting events chronologically and logically, events are classified by the six “Content Standards.” Liberating itself from such a confining and ineffective framework would do wonders for these standards.

WORLD HISTORY—F

- *Ohio’s Social Studies Academic Content Standards, 2002*

Size doesn’t matter when it comes to these standards—at a whopping 300-pages, it’s still short on content. Instead, the Buckeye State’s world history standards focus on methodology and instruction commentary, which doesn’t bode well for students. World history is introduced in sixth grade. Vagueness seeps everywhere. Although the documents mention Greece and Rome, they provide little information about the contributions or influence of those civilizations. The Crusades, the Renaissance, and the Reformation all are mentioned tersely, in an off-the-cuff, oh-by-the-way manner. The only world history content high schoolers receive comes in the ninth grade. Perhaps because Ohio is planted firmly in the nation’s rustbelt, the Industrial Revolution receives good coverage. But most other topics, such as World War I, don’t receive such thorough treatment.

OKLAHOMA REPORT CARD

SUBJECT	2000	2006
English	D	C
U.S. History	B	B
Geography*	C	B
Math	B	C
Science	F	F
OVERALL GRADE	C-	C+

*World History for 2006

ENGLISH—C

- *Priority Academic Student Skills: Language Arts, Grades K-12*
- *Alignment Blueprints for the 2003-2004 Oklahoma Core Curriculum Tests, Reading: Grade 3, 4, 5, 8 and English II 2003-2004 Test Specifications for the Oklahoma Core Curriculum Tests*
- *Performance Level Descriptors Writing Test Scoring Procedures—Grades 5 & 8—English II*
- *Writing Test Example Papers—2001—Grade 5 & 8 2002-2003 Test Interpretation Manuals*
- *Reading Sufficiency Act, Assessment for Reading 1-3*

The Sooner State’s English standards are above average in most ways. Several decisions of the standards writers are promising, such as the division of standards by grade level from grade 1 through grade 12. A very strong vocabulary section exists side-by-side with top-notch phonics strands and the standards contain information on the material covered by the Oklahoma Core Curriculum Tests. Linking standards and tests may seem like common sense, but actually it is a very rare practice. Oklahoma’s standards-test link deserves any and all plaudits it receives. Yet, literature is addressed poorly and that alone is important enough to knock down Oklahoma’s grade significantly. Authors and their works, genres, and pieces of cultural or historical significance are not given nearly the attention they deserve. Like many other states, Oklahoma does a high-quality job in the earlier years only to see it fall away at the high school level, where literary study takes on seminal importance.

MATHEMATICS—C

- *Priority Academic Student Skills: Mathematics Content Standards, August 22, 2002*

If you can name a problem with state math standards, Oklahoma has it just a little bit. Shortcomings in coverage (such as failure to clearly cover standard algorithms or require memorization of basic number facts), inappropriate use of calculators and technology, and overemphasis of probability and statistics all make an appearance here, though not to the degree seen in other states. The high school standards are better, with decent coverage of Algebra (though weak coverage of Trigonometry within that topic). There’s little to say about these standards—not bad, not good, just blah.

SCIENCE—F

- *Priority Academic Student Skills Standards Framework, Science, March 2005*

Oklahoma sequences its standards well. Grades 1-8 have content standards in life, physical, and Earth/space science. In high school, standards are broken out by course: physical science, biology, chemistry, and physics. Unfortunately, the organization does nothing to improve the dismal disciplinary content, which is substandard at all levels. Physics is undemanding across the board and, despite its terseness, the physics content still manages to be filled with errors. Chemistry is much the same way. Life science is superficial and the word “evolution” is never used. This is unacceptable, and it alone justifies the F grade.

U.S. HISTORY—B

- *Oklahoma Priority Academic Student Skills, 2002, Oklahoma State Department of Education*

The sooner Oklahoma can bring its elementary and high school U.S. history standards up to the level of its better eighth grade coverage, the better for Sooner students. Oklahoma history is presented in fourth grade and U.S. history starts in grade 5 with coverage of the Colonial period that, unfortunately, contains significant gaps. The omission of the rise of political parties in 1790

and the election of 1800 is juxtaposed with comprehensive examinations of the Revolution and the Constitution. Eighth grade history, which covers the period from the Revolution through Reconstruction, is terrific and among the nation's most thorough middle school standards. Yet, the high school standards, which deal with U.S. history from 1850 to the present, drop the ball. They fail, for example, to mention Richard Nixon while discussing Watergate, and give nary a clue that Ronald Reagan had something to do with Iran-Contra. Woodrow Wilson to World War I and the League of Nations? According to these standards, there is no relation. More attention to detail at the high school and elementary levels would transform Oklahoma's standards to some of America's best.

WORLD HISTORY—B

- *Oklahoma Priority Academic Student Skills, Social Studies, 2003*

The only major weakness in these standards is the lack of content-rich world history material in the primary grades. Not until grade 6 do Oklahoma students address the subject with any seriousness. But after that, the state does a solid job. The high school standards are challenging. Students are asked to compare and contrast specific countries and cultures, and to examine them individually in detail. What's more, the standards are not Eurocentric, although students do examine ancient Greece and Rome in the intricate detail that they should. Also included is a substantive lesson on political theory. Post-World War II education is significantly weaker; little information is included about events that occurred after the Berlin Wall's fall. Yet, the Sooner State is in possession of an admirable document that serves as a good base from which to grow.

OREGON REPORT CARD

SUBJECT	2000	2006
English	F	B
U.S. History	B	D
Geography*	F	F
Math	D	D
Science	B	F
OVERALL GRADE	D+	D

*World History for 2006

ENGLISH—B

- *Oregon English/Language Arts Grade-Level Foundations—Grades K-8, 2002 Reformatted April 2003*
- *Oregon English/Language Arts Grade-Level Standards—Oregon Standards Newspaper 2003-2004, adopted January 2003*
- *Overview: Reading/Literature Knowledge and Skills Test Specifications, June 2001*
- *Writing Grades 4 & 7: Scored Student Work; Writing Performance Standards—State Writing Performance Assessment, adopted April 15, 2004*
- *Reading Scoring Guide, K-3*
- *Reading and Literature Scoring Guide: Intermediate Student Language Version (Grades 4-5)*
- *Reading and Literature Scoring Guide: Secondary Student Language Version (Grades 6-12)*
- *Student Language Scoring Guide Speaking, K-2, 3, 5, 8, & 10*
- *Student Scoring Guide 2003-2004—Writing Benchmark 1, 2, & 3*
- *Student Scoring Guide 2003-2004—Writing, CIM Official Scoring Guide, Writing & Speaking, 2003-2004*

Oregon's newest English standards document was developed with the help of Achieve, Inc., and it is significantly better than its predecessor. First, the standards are arranged into coherent categories, by grade level for K-8 (with a separate standard for high school), that cover English language arts and reading in a satisfactory manner. Yet, even with its new developers, the Beaver State's standards avoid the list of literary works, authors,

genres, etc., that students in higher levels need to understand. Literary traditions are not explained. Historical and cultural content are not explained. Oregon would do well to include standards addressing classical, British, and American literature, and to provide more than one document for high school students. The new documents are a major improvement and, with a small bit of extra energy, Oregon can pride itself on putting forth truly excellent standards documents.

MATHEMATICS—D

- *Mathematics Grade-level Standards & K-12 Foundations, April 2002*
- *Content Standards Newspaper: Grade Level Foundations and Standards, 2003-2004 School Year*

Oregon's math standards have some strong features, such as decimals, fractions, and percents, geometry, and measurement. But the arithmetic standards are poor—a serious shortcoming. Students do not memorize standard algorithms, but instead explore “efficient strategies for determining” basic multiplication and division facts 0-9. Having an efficient strategy for figuring out that $6 \times 7 = 42$ is simply not the same as knowing that fact, and a student lacking that knowledge will be at a disadvantage later. In the upper grades, the development of algebra is weak and the pace slow, while many standards are vague and inflated. What is one to make of a directive to “Accurately solve problems using mathematics,” for example? We should certainly hope so, at the very least.

SCIENCE—F

- *Standards for Science, 2005*

These science standards are arranged in grid format and somehow manage to be both too brief and obscure. One shortcoming—the document has benchmarks for grades 3, 5, and 8, but doesn't address high school science. There are actually very few standards. They are incredibly general and are repeated in subsequent grades with very few changes. Physical science does the best job of not screwing up the limited material it presents, but it's still over-simplified at every level. The level of generality demonstrated in these standards won't impart a meaningful science education to students.

U.S. HISTORY—D

- *Oregon's Teaching and Learning to Standards: Social Sciences, 2002, Oregon Department of Education*

The grade Oregon's standards receives is not reflective of their comprehensiveness. In many places, Oregon does an adequate-to-good job of covering historical events in a detailed manner. Sure, there are omissions—World War I, for example—and the document tends toward mushy multiculturalism in some places, but overall, the content is far from D-worthy. But Oregon makes a crucial mistake: It presents each time period of history only once. So, the American Revolution is studied in fifth grade and never again. The Civil War is an eighth grade project and twentieth century matters fall to tenth graders. Such an arrangement assumes that, between fifth and eighth grades, students will retain all the historical content they previously learned. No refreshing necessary. And Oregon's system turns out students who, one suspects, received a relatively sophisticated World War II education, but who will go into college with only a fifth grade understanding of the American Revolution. That is unwise. These standards suffer from poor planning.

WORLD HISTORY—F

- *Oregon's Teaching and Learning to Standards: Social Sciences, 2002*

Oregon sets far-reaching goals for its world history standards. It doesn't meet them. Much history—early civilizations through the Renaissance, for example—is only covered once and students never have the opportunity to revisit such topics at an older age when, one assumes, they've achieved a higher level of understanding. Content coverage often lacks detail and is sporadic. Funny that Oregon encourages students to evaluate the specifics of the Roman civilization but pays scant attention to the ancient Greeks. Tenth-grade world history is little more than a list of random events, strung together in a shockingly haphazard way. The Chinese Revolution is discussed, but the French Revolution is not. Even more inexplicable is that Oregon's world history curriculum concludes with the Korean and Vietnam Wars. Perhaps that's why Portland has so many young socialist denizens—they think the U.S.S.R. is still intact! Oregon needs to make some major changes to this document if it wishes to produce students with any historical grasp.

PENNSYLVANIA REPORT CARD

SUBJECT	2000	2006
English	C	C
U.S. History	F	F
Geography*	—	F
Math	C	D
Science	—	C
OVERALL GRADE	D+	D

*World History for 2006

ENGLISH—C

- *Reviewed: 22 Pennsylvania Code, Chapter 4 Appendix A: Academic Standards for Reading, Writing, Speaking and Listening, 1999*
- *2004 PSSA Reading Assessment Overview*
- *Assessment Anchors—Reading. 3, 8, & 11, April 2004*
- *Getting Ready! Reading Assessment Handbook Supplement 2004 PSSA*
- *PA Literacy Framework*
- *Writing Assessment Handbook*
- *Grade 6 & 9 Writing Handbook Supplement*
- *Grade 6, 9, & 11 Writing Handbook Supplement 2003-2004*
- *Released Writing Prompts*
- *2004 Reading Released Items (from the 2003 PSSA)*
- *Before During After Reading Strategies*

Pennsylvania has put forth English standards that are quite satisfactory in most every way. They are cogent, logical, and straightforward. They are measurable and clear, cover vocabulary and English language arts, and give reading instruction its due. There is also an excellent category on the characteristics and function of the English language. But nowhere does the Keystone State make clear that phonics will be taught explicitly and systematically. Decoding skills are not mentioned independently of context in grade 3. The literature strand is nowhere near complete. There is no mention of specific literary traditions or periods in American and British literary history—indeed, no mention of American literature at all as an inclusive body of literature, never mind some of its major themes, key authors, or works. Pennsylvania would do well to review these documents and make some necessary changes.

MATHEMATICS—D

- *Academic Standards for Mathematics, 2004*

Pennsylvania, on the third revision of its math standards, continues to struggle to fashion a credible set. The coverage of standard algorithms is ambiguous at best and fraction arithmetic is poorly developed, with too much reliance on calculators and manipulatives. Geometry and Trigonometry are weak and could never support serious calculus standards. Despite this, there are a number of calculus topics scattered through even the youngest grades. Unfortunately, students do not have the background knowledge to cover these topics adequately, so the calculus strands amount to little more than time-wasting punching of calculator keys, degenerating into standards about how to use spreadsheets and graphing calculators. Back to the drawing board—again—for the Keystone State.

SCIENCE—C

- *Academic Standards for Science and Technology and Environment and Ecology, January 2002*

The Keystone State's science standards document is defined by its unevenness—some subject areas are quite good, others are no good. Physical science coverage is fragmented and often disorganized. A more overarching problem, though, is the prevalence of science process and the relative shortage of science content. Much of the science process is simply ridiculous. Grade 12 students are asked to “Critically evaluate the status of existing theories (e.g., germ theory of disease, wave theory of light, classification of subatomic particles, theory of evolution, epidemiology of aids [sic].” Critically evaluate? Really? Life science is able to escape from much of this fluff, though, and it is handled well, in a thoughtful grade sequence. Evolution is deftly handled. A study in contradictions are these standards.

*U.S. HISTORY—F

- *Academic Standards for History, 2002, Pennsylvania Department of Education*

Pennsylvania’s standards function much like a mail-room. To wit: They divide U.S. history into 20 thematic categories and then, into these 20 “bins,” the state drops historical figures or events. These figures or events may or may not have a good relation to the category, but that doesn’t much matter. Of course, these are state standards, not a mailroom, and once the 20 bins are unpacked, Pennsylvania’s students will find themselves faced with random piles of random information. There is no chronological progression, nor are there any logical correlations. The Keystone State standards haven’t presented history as “a narrative—a story,” though they promise in the introduction to do so. No story here, just vacuous information and random data. Not good.

*WORLD HISTORY—F

- *Academic Standards for History, 2002*

World history is presented in four stages: beginnings to present (grades 1-3), beginnings to present (grades 4-6), beginnings to 1500 (grades 7-9), and 1450 to present (grades 10-12). It lacks any content or sequencing coherency. Vagueness rules: “Identify and explain how individual groups made significant political and cultural contributions to world history.” That command is followed by a random list of figures such as “Nelson Mandela, Pope Leo X, Commodore Perry, and Montezuma.” The document includes no detail, no specificity, nothing to explain why an Aztec leader and an American naval officer are paired side-by-side. These standards thoroughly disappoint. Certainly they do not educate.

RHODE ISLAND REPORT CARD		
SUBJECT	2000	2006
English	F	C
U.S. History	—	—
Geography*	—	—
Math	F	F
Science	A	C
OVERALL GRADE	D+	D+
*World History for 2006		

ENGLISH—C

- *The Rhode Island English Language Arts Framework, 1996*
- *Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Reading in Grades 2-5*
- *Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Reading in Grades 5-8*
- *Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Writing in Grades 3-8*

Rhode Island, like New Hampshire, has instituted the Tri-State New England Expectations. Unlike New Hampshire, however, the other English standards documents from the Ocean State are not quite up to snuff. For example, the new reading expectations make clear that decoding skills are to help word identification. But, until Rhode Island adopts or crafts a solid set of K-1 expectations, it won’t be clear whether students are expected to learn those skills systematically and be able to apply them independent of context. Similarly, new 9-12 expectations are in the pipeline, but are not yet available for students and teachers. And the old Rhode Island English standards, from 1996, are wholly inadequate to serve the literature education needs of high school students. Rhode Island may very well craft the remainder of its English standards documents with the utmost care and concern and the state may become a model for others around the nation. But, we just don’t know yet and, as it now stands, the state’s standards are less than admirable.

*MATHEMATICS—F

- *Mathematical Power for ALL Students: The Rhode Island Mathematics Framework K-12, 1995*
- *Draft K-8 New Hampshire and Rhode Island Local and NECAP Grade Level Expectations (GLEs), June 6, 2004*

Even the development of shared Grade Level Expectations with Vermont and New Hampshire fail to budge Rhode Island's failing grade. Constructivism reigns in our smallest state, with instructions to "construct their understanding" of all sorts of topics—which basically asks students to fling themselves unguided on the field of mathematics and figure out what works for them. Thus, students are directed to have "an intuitive understanding of algebraic procedures" (one of the least intuitive topics one can imagine) or "investigate and compare various geometries," which would make more sense if students were ever asked to cover thoroughly standard plane geometry. These standards mention "shapes" and "figures," but never cite a specific example. (Indeed, the word "triangle" doesn't appear once.) Rhode Island's math program is one of unending student discovery, apparently absent any clarifying or guiding authority—the state even discourages the use of textbooks—which ultimately amounts to students making it up.

*SCIENCE—C

- *Rhode Island Science Framework, 1995 (Drafts 2005)*

"Collecting and organizing the litter thrown away at lunchtime is an exciting mathematics activity for the students." So says the Rhode Island science standards; we doubt Rhode Island students agree. On balance, though, this document is not as silly as such an activity suggests. It has its ups and downs. Physical science starts well, but as the grades progress, physical science quality regresses. Chemistry suffers from the opposite problem, as its K-8 standards are completely insufficient to sustain a good high school curriculum. The life sciences, however, glow in comparison. They contain a praiseworthy presentation of developmental biology and the high school approach to molecular biology is sophisticated. It is too bad that Rhode Island has presented such a bumpy ride through a science standards land of shining peaks and pernicious valleys. Perhaps the next document will provide smoother, all-around higher terrain.

U.S. HISTORY—NO STANDARDS

Little Rhode Island believes itself so flush with American history that it has no need for history standards. Rhode Island students scoff ("Hah! What nin-nies!") at other states where teachers feel the need to teach actual information, or where students are held accountable for subject matter and content knowledge.

WORLD HISTORY—NO STANDARDS

SOUTH CAROLINA REPORT CARD		
SUBJECT	2000	2006
English	B	B
U.S. History	C	C
Geography*	A	A
Math	B	D
Science	B	A
OVERALL GRADE	B	B-

*World History for 2006

ENGLISH—B

- *South Carolina English Language Arts Curriculum Standards 2002 ELA Blueprint for PACT*
- *Measuring Student Performance through the Creation of Scoring Guides*

The Palmetto State is making positive strides and its standards-based education reforms are beginning to turn heads in other state capitals. One of the biggest components of such reform is crafting good state standards and, while South Carolina's English standards could be better, they certainly don't disappoint. The standards quite satisfactorily address almost all areas of the English language arts and reading. The standards for listening and speaking are excellent. Students are expected to acquire beginning reading skills, set forth in a strand on phonics and word study. Vocabulary instruction is strong and the level of literary analysis demanded of students is very high. But South Carolina falls prey to the temptation to not provide a recommended reading list of top works and authors.

Literary traditions and genres are also absent. While the state demands students engage in difficult analysis, it never points out those works youngsters should be analyzing in their classrooms. This is a mistake. We're sure South Carolina will, in its next edition of English standards, make the necessary corrections. At that time, it will be our honor to bestow an A upon the worthy state.

MATHEMATICS—D

- *Outlines of High School Mathematics Courses*
- *Mathematics Course Standards, 2000*
- *South Carolina Mathematics Curriculum Standards, 2000*

South Carolina opens its discussion of Geometry with the absurd statement, “The use of Geometry software ... is essential to the instruction and assessment of Geometry,” which, if true, would mean that the past 2000 years of instruction in Geometry was a waste. Unfortunately, this statement is indicative of the state’s entire approach, which emphasizes technology at all levels, for all grades, as if math simply cannot be done without technological aids. Standards are often vague or inflated, such as the directive to connect Geometry “to the world outside the classroom,” which sounds much better than what it means. Still, the high school standards manage to be fairly solid, and the elementary standards ask for memorization of the basic number facts, a positive feature. Overall, these could be a decent set of standards if the state would allow its students to actually perform calculations.

*SCIENCE—A

- *South Carolina Science Curriculum Standards, 2000*

South Carolina draws from the National Science Education Standards for its document. It has added to them, however, and the standards are bursting with content ripe for students’ picking. Physical science is organized and error-free. The treatment is similar for the life sciences, and evolution is handled in an exemplary manner. One finds little tiresome, platitudinous language. Content is king in this document, as it should be.

*U.S. HISTORY—C

- *South Carolina Social Studies Curriculum Standards, 2000, South Carolina Department of Education (Since these standards were reviewed, South Carolina has issued a revised copy.)*

South Carolina’s standards remain at a “dare to be great” moment. They contain good overarching organization, but the coverage of events is sporadic and, far too frequently, anonymous. To wit, the standards do a praiseworthy job reviewing how South Carolina and other colonies became dependent on slavery, but it never mentions tenant farming, the KKK, or Jim Crow. This document is cumulatively developed, but it often sheds facts for cutesy, air-brushed themes. Diversity, for example, gets much play. Since our last review of its U.S. history standards, the Palmetto State has revised them. Let’s hope the new documents contain more specifics and less overt generality.

WORLD HISTORY—A

- *South Carolina Social Studies Curriculum Standards, 2005*

Who would’ve guessed that some of the nation’s best world history standards would’ve emerged from the Low Country. But that is indeed the case, for South Carolina puts forth a document that is specific and organized, not by themes, but chronologically. World history is covered in sixth grade, seventh grade, and high school. All deserve praise. The sixth grade standards ask students to “summarize the significant features of the classical Indian civilization, including the caste system.” A challenging task, indeed. They are also asked to “compare the features and major contributions of the African civilizations of Ghana, Mali, and Songhai, including the ... impact of Islam and Christianity on their cultures.” Seventh graders discuss the works of Locke, Rousseau, and Montesquieu. High school is similarly demanding, although the state could do a better job with modern events. Overall, though, South Carolina’s students should consider themselves lucky.

SOUTH DAKOTA REPORT CARD

SUBJECT	2000	2006
English	C	B
U.S. History	C	D
Geography*	C	D
Math	A	C
Science	B	D
OVERALL GRADE	B-	C-

*World History for 2006

ENGLISH—B

- *South Dakota Reading Content Standards, K-12, 2004 Revision*
- *South Dakota Communication Arts Content Standards, 2004 Revision*
- *Curriculum Mapping for South Dakota Essential Core Standards, 3-8 & 11*

These English standards are clear and coherent—they are clear, specific, and measurable, and they address all areas of English language arts and reading quite well. In addition, for each standard, there are statements of levels for knowledge, analysis, and application based on Bloom's Taxonomy, and for each grade there are descriptors for levels of performance. But deficiencies exist. Literary study contains few benchmarks and there is no mention of specific authors, works, or literary periods and traditions. South Dakota's high school students lose with this arrangement. In high school, the bulk of English education involves literary study and only with top-notch standards in this area can the state ensure its students will read the best of what's been thought and said in preparation for education at higher levels.

MATHEMATICS—C

- *Mathematics Content Standards, May 17, 2004*

South Dakota's standards mix strong coverage with serious weak spots. In the elementary grades, there is solid and steady development of Algebra though no requirement to memorize the basic number facts. Area and fractions develop slowly, asking too little of students and restricting the operations inappropriately at most levels. Decimals and percents suffer from similar problems. The high school standards are vague, but are usually clarified by accompanying examples that tend to be more substantive than the actual standards. In Geometry, proofs, the quadratic formula, and the Pythagorean Theorem are underemphasized, which slows the acquisition of knowledge in this topic.

SCIENCE—D

- *South Dakota Content Standards, 2005*

This document actually contains a category of learning expectations titled "Goals." Other categories include "Indicators," "Benchmarks," and "Standards." Perhaps because of the generality embraced here, a substantial amount of content is repeated from grade to grade. South Dakota puts forth in its introduction that it designed its standards with "deemphasizing memorization of facts" as a priority. Perhaps that is why the physical science section is so full of errors and careless writing. For example, one bulleted point asks students to "Interpret a thermometer." Playing charades with insentient, inanimate objects is a timewaster. Chemistry is a similar let down. Earth/space science, surprisingly, gets good treatment, yet there remains an unnecessary repetition of information from grade to grade. Hard to believe this document escaped an F.

*U.S. HISTORY—D

- *South Dakota Social Studies Content Standards, 1999, South Dakota Department of Education and Cultural Affairs*

Certainly South Dakota’s standards could do better than not mentioning the names of any post–American Revolution historical figures in its fifth grade sequence—or leaving out political history in its description of the Civil War. Though eighth grade history is comprehensive, the grades 9–12 sequence is not. They don’t mention an American president or major historical figure, which is a poor strategy for imparting historical knowledge. These standards, though, are not hopeless and, with some content buffing and toning, South Dakota could offer its students a useful document. But there are currently too many holes to make reading these standards a worthwhile pursuit.

*WORLD HISTORY—D

- *South Dakota Social Studies Content Standards, 1999*

If our standards reviews covered grades K-8, South Dakota would fare quite well. But, unfortunately for the Mount Rushmore State, high school is included in our assessments, which mars the whole picture. South Dakota covers no high school world history, therefore the state receives a grade that reflects such a situation. The world history standards that do exist, however, are organized effectively by grade level. They are comprehensive; the sixth grade standards, for example, include an evocative analysis of India’s history and culture. Unfortunately, it’s downhill from there. South Dakota owes it to its high school students to craft world history standards at higher levels.

TENNESSEE REPORT CARD		
SUBJECT	2000	2006
English	F	D
U.S. History	D	C
Geography*	F	D
Math	F	D
Science	F	B
OVERALL GRADE	F	C-
*World History for 2006		

ENGLISH—D

- *A Blueprint for Learning: A Teacher’s Guide to the Tennessee Curriculum, K-8, 2001*
- *English/Language Arts Curriculum Standards, K-12, Approved August 31, 2001*
- *Language Arts Program: Grades 9-12, uUpdated January. 12, 2004*
- *2004 Achievement Test, Form O: NRT Objectives and Sub-Skills Tables by Content Area and Grade Level, 3-8*
- *GatewayAssessment Item Sampler*

Tennessee’s English standards are in large part unclear, unspecific, and immeasurable. For example, students are asked to “recognize and identify words within context that reveal particular time periods and cultures” and to use “cognitive strategies to evaluate text critically.” These instructions are confusing at best and a complete waste of time at worst. Categorization is also off. Tennessee mixes literary and non-literary subjects, and does not subscribe to any research-driven method for categorizing its standards. And until the state specifies a group of authors, works, literary periods, and literary traditions for each of its secondary school grades, one cannot believe that Tennessee has any basis for creating uniformly high standards for its students. The solutions are forthright, thus it is Tennessee’s choice whether it chooses to reform these currently substandard documents.

MATHEMATICS—D

- *Mathematics Curriculum Standards*
- *Draft Performance Indicators, Adopted on August 31, 2001*
- *Accomplishments, August 31, 2001*
- *A Blueprint for Learning: A Teacher's Guide to the Tennessee Curriculum*

Tennessee, strangely enough, has high ambitions when it comes to advanced mathematical topics, such as Advanced Algebra and Calculus, which are presented clearly and comprehensively. But it's unclear how students could attack these topics after going through the Volunteer State's deficient lower-grade standards. Arithmetic competence is seriously undermined by the state's focus on calculator use, and the state somehow manages to sidestep a clear directive to memorize basic number facts and do simple calculations amidst a long discussion of reading, writing, and comparing numbers. Both geometry and algebra start out strong and then simply move too slow, so that important topics get lost or pushed too far into a student's career. Eighth graders, for example, are still not expected to solve and graph linear equations whose coefficients are fractions—a topic that should have been covered several years earlier.

*SCIENCE—B

- *Science Curriculum Standards, August 2001*
(*Tennessee is revising its standards for 2006-2007*)

This document does a very good job presenting science content, but its excessive length, complicated structure, and occasional small errors prevent it from cracking the elite club as is. The standards are divided by the grade span K-3, and then by single grades from 4-8. High school standards are divided by courses. The physical sciences are covered thoroughly, but small errors are too prevalent. For example, students are asked to “compare Celsius, Kelvin and Absolute temperature scales.” The Kelvin scale is an absolute temperature scale—a small error, but an error nonetheless. Chemistry and life science both receive good coverage. Life science, in particular, hits a broad range of subject matter in genetics, physiology, and ecology, and addresses the scales of organization from sub-cellular to population and community. Tennessee has also shifted from its earlier position on evolution (in its 1998 stan-

dards, evolution was ignored) and now covers the topic well. Some tightening, and the Volunteer State will surely be offered admission to the exclusive club of A's.

U.S. HISTORY—C

- *Tennessee Social Studies Curriculum Standards, 2001, Tennessee State Department of Education*

Tennessee's U.S. history instruction begins in fourth grade when students are exposed to material from the earliest settlements to the Civil War. The fifth grade curriculum moves from the Civil War through the Contemporary United States. Performance indicators at these levels are relatively specific and cite, among other topics, the post-war struggles of organized labor and the 1954 Brown decision. In eighth grade, students return to studies which mirror the fourth grade curriculum, although the information is examined in greater detail. Yet, the state ignores political history in this sequence. Eleventh graders return to the fifth grade curriculum, although important details—such as the development of Jim Crow laws—are omitted. Tennessee's standards are at the Rubicon's banks. By inserting more content, by being more specific about what information should be learned when, by presenting facts in a more orderly and chronological sequence, they can cross the waters with force and claim their throne.

WORLD HISTORY—D

- *Tennessee Social Studies Curriculum Standards, 2002*

Tennessee presents an odd case—the state has standards of impressive length and scope that, nonetheless, do not necessarily translate into an effective world history education for Tennessee students. The Volunteer State does some things right. First, it exposes students to world history at a young age. Second, at the high school level it offers up frameworks for particular courses such as ancient history and modern history. Unfortunately, there is a pervasive lack of specificity throughout much of the document, and the most detailed standards (for particular high school courses) almost always apply to electives. Most disturbing is that Tennessee's students must take either world history or world geography to graduate, which means many youngsters may leave high school without any serious, higher-level world history instruction. The introduction to these standards reads that all students should gain an “understanding of the world.” As it now stands, many will not.

TEXAS REPORT CARD

SUBJECT	2000	2006
English	B	B
U.S. History	B	C
Geography*	A	C
Math	B	C
Science	C	F
OVERALL GRADE	B	C-

*World History for 2006

ENGLISH—B

- *Texas Education Agency: Curriculum and Assessment Resources, Chapter 110, Fall 2002*
- *Texas Essential Knowledge and Skills for English Language Arts and Reading: Subchapter A (Elementary), B (Middle), C(High) & D (Other), Adopted September, 1, 1998*
- *Texas Assessment of Knowledge and Skills, Spring 2004*
- *Performance Standards—1 SEM: English Version Tests, 3-11 Texas Assessment of Knowledge and Skills (TAKS) Blueprints*
- *Released TAKS Tests*
- *TAKS Information Booklets*

Texas puts forth a set of clear and logical standards, well-organized and easy to read. They do well by vocabulary and English language arts instruction, and writing is covered fully. But Texas’s standards contain elements that detract from their overall quality—students are asked, for example, to “connect literature to historical contexts, current events, and his/her own experiences” at all grade levels. This is an unproductive and potentially damaging activity that probably will detract from the literature itself. Literary specifics are lacking and, therefore, the high school curriculum is compromised.

*MATHEMATICS—C

- *Texas Essential Knowledge and Skills for Mathematics*

Texas’s solid TEKS standards scored a B in our last review, but the state has slipped this time by releasing the TEKS Toolkit, a teachers’ guide that seriously dilutes the quality of these standards with vague, useless, and time-wasting activities and exercises. (One asks students to use marshmallows and toothpicks to build cubes, for purposes that escape us.) These standards are lucid, but generally undistinguished. Elementary school students memorize basic number facts, but also use calculators extensively in the middle grades and beyond. The arithmetic of rational numbers and symbolic notation are held hostage by manipulatives in the middle grades, which is poor preparation for high school math. Fractions are slowly and poorly developed and too much of Geometry is conflated with statistics. Overall, there is simply not enough there to warrant a more-than-mediocre grade for these standards.

SCIENCE—F

- *Texas Essential Knowledge and Skills for Science, 1998*

Texas’s science standards offer no justification for their setup or organization, no unique introduction to explain their goals or objectives. The document is broken out by themes, but they are so broad that almost any content from any science field could fit anywhere within them. And the standards become more discouraging as the reader plows ahead. The authors’ understanding of the material seems to drop off incrementally as the grades rise and the content becomes more demanding. There exists also a remarkable contrast between over-ambitious expectations (e.g., third graders are asked to “evaluate the impact of research on scientific thought, society, and the environment”) and the trite suggestions for demonstrating such capacity (“Illustrate the phases of the moon using chocolate sandwich cookies.”). The Lone Star State has not put forth a science standards document that will well prepare its students. It should return to the planning stages and try again.

U.S. HISTORY—C

- *Texas Essential Knowledge and Skills for Kindergarten-Grade 12: Social Studies and Economics, 1997, Texas Education Agency*

Texas's standards are reasonably comprehensive and the state does a marvelous job of sequencing the information from kindergarten on up. Yet, while the standards' specificity in some areas is surely admirable, it falters in other realms. The Treaty of Versailles and Teddy Roosevelt's progressive agenda are not mentioned, for example, and, despite the fact that Texas was a leading Populist state, Populism is nowhere to be found. Further, the Lone Star State pushes in its standards a political agenda. American, and especially Texan, history is glorified. The documents avoid the less laudable parts of the nation's and state's histories—such as Jim Crow and the KKK—and instead point to, for example, oil and gas companies as manifestations of the wonders of laissez-faire capitalism. Texas commuters paying \$3 a gallon, and perhaps some former Enron employees, may disagree about the degree of wonder such companies actually bestow. These standards are a good start, but young Texans deserve an equally compelling finish.

WORLD HISTORY—C

- *Texas Essential Knowledge and Skills for Kindergarten-Grade 12: Social Studies and Economics, 1998*

It is in sixth grade when Lone Star State students are first introduced to world history; they are asked to “describe the influence of individuals and groups on historical and contemporary events” in regions throughout the world. But these standards provide precious little specificity to help young Texans meet that request. This is but one result of the standards' overarching flaw: they lack any chronology. The problem is alleviated a bit in high school, when the state takes a far more serious approach to teaching world history. Although portions of the document are often akin to a laundry list, the authors took the necessary and important step of presenting concepts in the context of historical events. Texas also makes good use of primary sources, requiring students, for example, to read historical documents, such as John Locke's *Two Treatises on Government* and Justinian's *Code of Laws*. There is also a more than adequate examination of major non-Western civilizations. Unfortunately, all these achievements are rendered average, because Texas does not present history chronologically. Remedying that would improve this document significantly.

UTAH REPORT CARD

SUBJECT	2000	2006
English	C	C
U.S. History	C	C
Geography*	C	F
Math	B	D
Science	B	C
OVERALL GRADE	C+	D+

*World History for 2006

*ENGLISH—C

- *Evaluation and Assessment, 1-6*
- *Secondary Language Arts Criterion-Referenced Test Blueprints, 7-11*
- *Elementary Language Arts Core Curriculum, K-6*
- *Language Arts Standards, K-6, 2003*
- *Language Arts Standards, 7-11, 1999*
- *Utah: Summary of its English Language Arts and Reading Standards*
- *Utah K-3 Literacy Framework for Successful Instruction and Intervention*
- *Utah Direct Writing Assessment*
- *Evaluation and Assessment: Elementary Language Arts*

Utah's English standards are a dichotomy. Its primary grade standards are quite good, but its secondary grade standards leave much to be desired. For example, in grade 9, students are expected to “determine when and where to use comprehension strategies before, during, and after reading.” They are also highly repetitive, with little increase in complexity from grade to grade. The orientation is focused on process rather than content. This is unwise. Further, Utah includes within these documents no literary material of merit. It gives no recommended reading list, no names of authors, no information on literary traditions. And oddly, the state seems to go out of its way to deny America's status as a country with its own civic culture, as American literature garners no mention in its English standards. It is only by virtue of its well-done primary grade standards that Utah escapes a lower grade.

MATHEMATICS—D

- *Core Standards, Revised May 2003*

Here's a statement only an education theorist could love: "[C]urrent research makes clear that how mathematics is taught is as important or more important than the mathematical concepts being taught." That's the clarion call to using dice, tiles, blocks, and calculators that opens Utah's middle and high school standards, and the standards writer certainly took the hint. Manipulatives are everywhere in these standards. For example, when working with "algebraic properties and symbols," students are encouraged to solve problems "numerically: from a table or guess and check," "algebraically, including the use of manipulatives," "graphically," or "using technology," which would seem to include just about everything but solving the problem. Probability is conflated with arithmetic several times in the lower grades, and nowhere are students told to memorize basic number facts. Serious deficiencies in coverage of advanced topics, not surprisingly, abound.

SCIENCE—C

- *Integrated Science Standards, 2005*

This document has its shining attributes. Its science process material—material that is often prone to insubstantial representation—is thoughtfully integrated with disciplinary content. But although the standards contain many well-reasoned sentiments ("objectivity is a matter of degree," for example), other propositions are less admirable. Students are instructed that "science is a search for meaning," which is certainly more than a tad problematic. Content is unsatisfactory. Biology gets the best treatment and evolution is presented forthrightly. Physical science does not fare so well and modern physics is entirely absent. Earth/ space science content is thin and K-8 chemistry doesn't offer proper preparation for high school. The use of mathematical problem solving is minimal. Certainly these standards contain worthy portions, but, when weighed in bulk, they are far less impressive.

U.S. HISTORY—C

- *Social Studies Core Curriculum: Grades K-6, 2000; Grades 7-12, 2002, Utah State Office of Education*

Utah's history instruction begins in third grade with the study of "indigenous (native) people of the United States," and students move into Utah's state history the next year. U.S. history takes the stage in fifth grade. The first half of fifth grade is U.S. history before 1800, and the second half is divided between the 19th and 20th centuries. The content is generally good, but because Utah presents information in topic strands (instead of chronological segments) events are artificially separated. Thus, the Constitution's development is not mentioned after the Revolution—instead, students skip from the Revolution directly to 19th century westward expansion. The Constitution is presented separately, under the "events and leaders in the United States through the nineteenth century" section. The eighth grade U.S. history sequence, which recovers information from exploration to westward expansion, is mostly comprehensive. Not so in high school, when important political history—such as mentioning FDR in relation to the New Deal—is missing. Utah's standards alternate between good and comprehensive, and bad and incomplete. Significant restructuring will be required to get this document up to snuff.

WORLD HISTORY—F

- *Social Studies Core Curriculum: 2002*

Utah third graders are asked to "investigate how environments and communities change over time through the influence of people." Comparisons are drawn between early Native Americans and South American cultures, such as the Inca. This first exposure to world history is made useless, however, because the standards do not provide enough information for students to make such comparisons. The state loves comparisons, but much of the time the standards leave out crucial information, or they attempt to compare entities, which would normally defy such evaluation. For example, fourth graders are asked to compare the governments and economies of Utah and Japan: "identify and compare major industries of Utah and Japan." Such statements are of little value, and students would be much better served by receiving basic information about Japan. Much of the world history content is housed under a required high school course on "World Civilizations." But it is sequenced in no comprehensible way, and has very little in the way of specifics or general coherence. Shame on Utah for not caring about the world!

VERMONT REPORT CARD

SUBJECT	2000	2006
English	D	C
U.S. History	F	F
Geography*	F	F
Math	C	D
Science	B	C
OVERALL GRADE	D+	D

*World History for 2006

ENGLISH—C

- *Vermont's Framework of Standards and Learning Opportunities, Fall 2000*
- *DRAFT Tri-State New England (TSNE) Grade Level Expectations (GLEs) for Grades 2-5 Reading, October 15, 2003*
- *DRAFT Tri-State New England (TSNE) Grade Level Expectations (GLEs) Grades 3-8 Writing, October 15, 2003*
- *Grade Expectations for Vermont's Framework of Standards and Learning Opportunities, Spring 2004*

Vermont shares its New England Grade Level Expectations with New Hampshire and Rhode Island. Those standards are quite good; Vermont's other standards are far less notable. Especially disappointing is Vermont's high school offerings, which show no key works, authors, literary periods, and literary traditions to be studied. Instead, the standards opt for broad statements that carry with them no clarifying or illustrative detail. Plus, the disciplinary coverage in high school is uneven. The grade-specific expectations for reading in grades 9-12 are inadequate as well. Much of this might be alleviated were Vermont to employ more than one set of standards for its high school students and if it embraced a fuller literature course of study.

MATHEMATICS—D

- *Framework of Standards and Learning Opportunities, Fall 2000*
- *Grade Expectations for Vermont's Framework of Standards and Learning Opportunities, Spring 2004*

Of the three states—New Hampshire, Rhode Island, and Vermont—that jointly developed *Grade Level Expectations*, Vermont scores the highest, but that's not saying much. There is a serious mismatch between the joint GLEs and Vermont's Framework, with topics introduced for testing well before Vermont's standards call for them to be taught. Integers, as just one example, are tested in the fourth grade, but not taught until the sixth grade. Geometry standards fail to mention proofs for specific theorems. Rational functions are missing from Algebra, a major failing, but the pre-calculus standards are solid. In the younger grades, the common misidentification of math with probability is present, with Kindergarteners predicting the rising of the sun based on past events. Calculators are introduced in the second grade and used regularly through middle school.

SCIENCE—C

- *Vermont's Framework of Standards and Learning Opportunities, 2000*

Vermont breaks down its standards grade by grade, from Pre-K-8, and with one grade span for 9-12. The document is large and its breadth can be occasionally confusing. In addition to the actual standards, the state also includes extensive supplementary material and, while that extra material is welcomed, its emphasis is more on process than content. Life sciences are covered with care. The expected content is all there (although the section's complicated organization makes navigation difficult), and political and other externalities are absent. Evolution is covered as it should be. Physics is a different story—although it starts well enough, as the grades increase, the quality of physics content decreases. The errors and omissions multiply in the chemistry section, and Earth/space science is diminished by the prevalence of overarching, abstract themes. Where interesting content could exist, the standards instead put forth bland ideas, such as, "Change is something that happens to many things." That is true, and it should certainly happen to these standards.

U.S. HISTORY—F

- *Vermont’s Framework of Standards and Learning Opportunities, 2000, Vermont Department of Education*

Vermont makes a large mistake by dividing history into content areas, then presenting those areas in as vague a way as possible. It’s as if all history conforms to overarching themes and subtopics, and as if virtually none of it has to do with actual people, places, or events. High school students are asked to “analyze the causes and effects of WWI and the US role in the world,” for example, or to “analyze the causes and effects of the Great Depression and identify policies designed to fix it.” Yet, these standards contain a real dearth of information with which students could even begin to consider those astoundingly murky prompts. And the murkiness only grows: “Explain a conflict (e.g., Labor issues, Revolutionary War) by recognizing the interests, values, perspectives, and points of view of those directly and indirectly involved in the conflict.” Huh? Vermont has some work to do.

WORLD HISTORY—F

- *Vermont’s Framework of Standards and Learning Opportunities, 2000*

If one set out to create the most incoherent world history standards, which would be devoid of facts, clarity, or readability, one would hire Vermont as a consultant. These standards are bad. World history relies heavily, like history in general, on dates and people and events. These standards eschew any mention of those. That, of course, makes logical, chronological presentation an impossibility. Vermont’s students cannot hope to learn world history from this haphazard document. It needs a severe makeover.

VIRGINIA REPORT CARD		
SUBJECT	2000	2006
English	B	B
U.S. History	A	B
Geography*	D	A
Math	B	C
Science	D	A
OVERALL GRADE	C+	B+
*World History for 2006		

ENGLISH—B

- *English Standards for Learning for Virginia Public Schools, Adopted November 2002*
- *Commonwealth of Virginia Standards of Learning Assessment Program: Blueprints for Grade 3, 5, 8, & Secondary English, 1997*
- *English Standards of Learning Curriculum Framework, Approved February 26, 2003*

Virginia groups its standards grade by grade from K-12 into coherent categories, reading, writing, and oral language, and uses a separate strand for research in grade 9-12. American literature study begins in grade 11, and it is presented crisply and cogently. Laudably, literary elements, genres, and techniques are all covered. Further, Virginia not only suggests, but expects its students to read works from different periods in American and British literature. Yet, despite their positive attributes, these English standards documents still include many uninterpretable and unteachable benchmarks. For example, students are expected to “describe contributions of different cultures to the development of American literature” and to “describe how use of context and language structures conveys an author’s intent and viewpoint in contemporary and historical essays, speeches, and critical reviews.” Most distressingly, Virginia does not include a list of suggested readings or authors. Nonetheless, the Old Dominion State does its youngsters proud and puts forth standards of overall high quality.

MATHEMATICS—C

- *Mathematics Standards of Learning for Virginia Public Schools, 2001*

Virginia's 2002 revision to its venerable Standards of Learning have caused its math grade to slip somewhat. Virginia's standards have many commendable features, including a requirement that students memorize basic number facts and measurement is well treated. But there are serious shortcomings in the treatment of standard algorithms and there is little guidance on how to use calculators appropriately. In the upper grades, progress in algebra is slow, with students not introduced to the concept of slope by the end of eighth grade. Advanced topics, such as Trigonometry, Mathematical Analysis, and Calculus, are well written and appropriate for college-bound students. But there are serious deficiencies in the Algebra I and II and Geometry requirements, especially in the latter's development of mathematical reasoning, a critical skill best taught by this topic's emphasis on proofs and logical structure.

SCIENCE—A

- *Revised Science Standards of Learning Curriculum Framework and Science Standards for Learning, 2003*

Weighty and comprehensive, these standards are excellent. They are, unbelievably, well written and make a noticeable effort to be accessible to parents, students, and anyone who wishes to access their wisdom. There's no silliness—just science. There is a combination of broad standards and detailed explanations in the frameworks, and this setup works quite well. Life science is sophisticated and refined. Even first graders receive top-notch, challenging information: "Conduct simple experiments/investigations related to plant needs by changing one variable (food, air, water, light or place to grow) at a time. Students do not need to know the term variable." Fantastic stuff, and sure to electrify eager first graders. Middle schoolers begin an investigation of genetics. The state even manages to succeed in its process and inquiry standards, while other states muddle them beyond belief. A fine job by the Old Dominion State.

U.S. HISTORY—B

- *History and Social Studies Standards of Learning for Virginia Public Schools, 2001, Board of Education, Commonwealth of Virginia*

The Old Dominion State begins teaching history in kindergarten and first grade, when Virginia youngsters learn stories about significant historical figures, such as George Washington and Pocahontas. In grade 2 the move onto "the heritage and contributions" of ancient peoples and the "American Indians (First Americans)." Virginia history is covered in the fourth grade, with topics through the Revolution and Constitution well developed, but subsequent historical events presented more vaguely. Then, in grade 5, students begin their study of U.S. history. The subject matter is generally good, but holes are evident. For example, the standards are evasive about the slave trade, and make no mention of how slave traders initially obtained the Africans they would transfer overseas. Further, a middle school review of the 19th century doesn't discuss antebellum reform movements, the Dred Scott decision, the Emancipation Proclamation, or the Gettysburg Address. A high school review doesn't mention McCarthyism and the Red Scare. These standards—an update from a top-notch 1995 document—are still good, but they've inexplicably lost some content covered in earlier versions. Room exists for improvement.

WORLD HISTORY—A

- *History and Social Studies Standards of Learning for Virginia Public Schools, 2001*

What a glorious set of world history standards Virginia has placed before us! Students encounter world history in the third grade when they begin to learn about ancient Greece and Rome. These youngsters are expected to know and understand how the Greek and Roman governments evolved, and how they influenced the U.S. government's own development. Third graders also learn about the West African empire of Mali, and must describe "its oral tradition, government and economic development." The middle grades concentrate on world history and geography up to 1500, and students benefit here from the nation's best coverage of ancient Chinese civilization. High school students learn world history and geography from 1500 to the present. What makes these standards particularly good is their focus on individuals—e.g., Bach, Kepler, Delacroix, etc.—and their penchant for asking demanding questions. One deficiency exists: Virginia could do a much better job covering Latin America. But overall, the Old Dominion State should serve as a model for others.

WASHINGTON REPORT CARD

SUBJECT	2000	2006
English	D	F
U.S. History	F	F
Geography*	F	D
Math	F	F
Science	B	C
OVERALL GRADE	D-	D-

*World History for 2006

ENGLISH—F

- *4-12 Reading Intervention Materials Review Washington State Evaluation Report, May 2004*
- *Reading Grade Level Expectations, January 13, 2004*
- *Essential Academic Learning Requirements—Writing, 1998A Framework for Achieving the Essential Academic Learning Requirements in Writing for Washington State, K-10, rRevised July 2001*
- *Essential Academic Learning Requirements—Communication, K-10, Approved February 26, 1997*
- *Washington Assessment of Student Learning Test Specifications, 4, 7, & 10*

Washington’s English standards need some definite reworking. They are difficult to read, suffer from confusing organizational structure, and contain sentiments that can only be described as odd. For example, the document implies that students should read only what is “culturally relevant.” In the glossary, culturally relevant literary/narrative text is defined as “reading materials to which the student can identify or relate.” This is a dangerous road for Washington to take its students down. Literary study is already plagued by enough bad, relativistic, so-called “cultural” writing; it doesn’t need any further difficulty from state K-12 standards. And instead of providing recommendations about which books and authors constitute good literature worthy of in-depth analysis, Washington would rather put forth social and political topics to guide student reading. Thus, we have standards that not only bring nothing of much worth to the table, but we have standards that actually do more harm than good. Washington should return to the drawing board.

MATHEMATICS—F

- *Mathematics, K-10 Grade Level Expectations: A New Level of Specificity, 2004*

Washington could start to improve its abysmal grade for its math standards by eliminating all but the first of the five strands in its Grade Level Expectations. The other four express possibly laudable, but inherently vague, goals and the standards grouped under them are of such poor quality to be useless. Indeed, an editor is generally required here: standards are poorly written, unclear, and needlessly long, often having little apparent connection to math. (“Explain how money is used to describe the value of purchased items,” for example.) Students are expected to memorize basic number facts, which is an excellent start, but student-invented algorithms and calculators are emphasized throughout. Fifth graders are using calculators to multiply decimals before they are even exposed to fraction multiplication, which means they are simply pressing buttons without understanding what’s happening. Indeed, the entire section on fractions is misguided in the extreme, promoting several fundamental misunderstandings of the topic of fractions. In the upper grades, Algebra and Geometry are seriously deficient.

SCIENCE—C

- *Washington Science Grade Level Expectations, 2005*

This document, titled Grade Level Expectations, is not actually divided by grade level. Instead, it breaks out standards by grade span: K-2, 3-5, 6-8, and 9-10. The last two years of high school remain inexplicably unaddressed. Washington seems to view its standards as a vehicle for coaxing students to “c’mon, just give science a try.” Also, clichés abound. For example: “Learning in science depends on actively doing science. Active engagement in hands-on, minds-on science learning experiences enables students to make personal sense of the physical world. . . .” So wrong, on so many levels. Nonetheless, mixed in between the platitudes and poor writing, one can find some pearls. Life science is one, where the standards offer a sound progression of ideas and skills. Physical science does not continue the positive trend, however, and is harmed by the technical and knowledge shortcomings of its creators. Errors are plentiful here. For its documented mixture of good and bad, Washington takes home the middling C.

*U.S. HISTORY—F

- *Washington's Essential Academic Learning Requirements, 1998 (refined April 2002).*
- *Social Studies Frameworks: K-5, 6-8, 9-12, June 2002, Office of Superintendent of Public Instruction*

When Washington ambitiously titles its standards “Essential Academic Learning Requirements,” one expects to find in the document’s pages cups of pedagogical nectar from which Evergreen State students drink deeply to slake their rabid intellectual curiosities. Instead, we find a half-empty glass of academic hemlock and standards that are not essential in any way, shape, or form. Fourth grade students are asked to “describe and compare patterns of life over time” and to “Explain how an idea has affected the way people live.” This method continues into high school, when students must “Identify and analyze major concepts, people, and events in the [sic] 20th Century U.S. History.” The Frameworks are no better, suffering as they do from chronological schizophrenia and an unrepentant penchant for inconsistency and vagueness. And, in an example of irony both supremely delicious and depressing, Washington never mentions its namesake in either of its U.S. history standards documents. Surely this state is guilty of “corrupting the youth” and it should be sentenced to imbibe its own wretched poison.

WORLD HISTORY—D

- *Essential Academic Learning Requirements, 2003*

The world history standards rely on four themes: civic responsibility, historical understanding, geographic understanding, and economic understanding. In K-8, students receive decent world history instruction. Washington does not present only the ancient civilizations of Greece and Rome, as do too many other states, but includes China, too. Such inclusiveness continues in seventh grade when students are presented the Islamic civilization and are asked to “trace the origins of Islam and the life and teaching of Mohammed, including Islamic teachings on the connection with Judaism and Christianity.” Things fall apart, though. The high school world history standards are worth bemoaning. Instead of detail, they require students to perform vague notions such as asking them “to understand the interrelationship between religion and governments.” It’s sad that, in effect, middle schoolers in the Evergreen State are prepared for nothing. They can be sure that their state’s high school standards will add nothing to the quality middle school world history education they already received.

WEST VIRGINIA REPORT CARD

SUBJECT	2000	2006
English	B	C
U.S. History	C	F
Geography*	B	C
Math	B	C
Science	F	B
OVERALL GRADE	C+	C-

*World History for 2006

*ENGLISH—C

- *Executive Summary: Policy 2520.1 Reading and English Language Arts Content Standards and Electives for West Virginia Schools*
- *West Virginia Blueprint—Reading/Language Arts Coverage Summary (All Grades) West Virginia Writing Assessment, Grade 4, 7, and 10*

The West Virginia English standards are divided by grade level from K-12, and cover English language arts and reading with sufficient breadth. The high school literary objectives are quite good (elementary and middle school could be better). To its credit, West Virginia mentions a bevy of literary elements, genres, and techniques. The document also mandates the study of West Virginia authors as well as those of national and international acclaim. But the state categorizes its standards in an often undecipherable way and has a penchant for mixing up literary and non-literary objectives. These documents also should do more in the area of literary study to detail culturally and historically relevant written works.

MATHEMATICS—C

- *Mathematics Content Standards K-12, July 1, 2003*

A recent revision of West Virginia's math standards has rendered this document unwieldy and verbose. The state has set 17 general standards that are repeated for each grade, with standards for that grade following. This might have provided thematic guidance for the standards writers, but it also makes this document confusing. Added to that, the state defines five levels of performance by including performance descriptors for each strand in each grade K-8, but these descriptors are highly repetitive and only add to the document's length, while several standards at all levels are poorly worded. The elementary standards are solid, although the state does not ask students to understand or use standard algorithms of arithmetic. The middle school standards are solid, but focus too much on the use of technology, while the high school standards nicely distinguish between college-bound and remedial courses, and are generally sound and appropriate. Overall, the content is solid, and these standards are only a red pen and an editor away from being excellent.

SCIENCE—B

- *Science Content and Standards for West Virginia Schools, 2003 (to be updated in 2008)*

West Virginia divides this document into six standards that are repeated for each grade. Only one, standard 4, is science content. Physical science receives good coverage, but much of it is often needlessly blemished by poor writing or errors of understanding. For example, students should “identify types of energy and their sources (e.g., petroleum refinement, windmills, geothermal).” Petroleum refinement is neither a type nor a source of energy. The attention to life sciences is above satisfactory, overall, but the section could use some editing by a competent scientist. Some errors occur needlessly because of confusing language. The major deficiency of these standards is their lack of science content. West Virginia has put forth a massive document, but it has devoted scant attention—especially in grades K-8—to important content, which in a subject such as chemistry, is of utmost importance.

*U.S. HISTORY—F

- *West Virginia Instructional Goals and Objectives for Social Studies, 2001, West Virginia Department of Education*

Robert Byrd ought to be ashamed. West Virginia's U.S. history standards impart next to nothing of value to Mountain State students. American history begins in fourth grade with little to no chronological coherence and the goals are so general as to be meaningless: students are expected to “identify major leaders and events from America's colonization to the Civil War” and “identify Presidents of the United States and their involvement with major historical events.” No historical figure is mentioned by name. Things improve very little in fifth grade and they grow a bit more advanced when instruction resumes in ninth grade. Yet, the overwhelming generalities continue unabated, and, after ninth grade, any semblance of chronological instruction is abandoned. Thematic instruction (e.g., “the increasing interdependency of the United States and the world”) is embraced and things continue downhill from there.

WORLD HISTORY—C

- *West Virginia Instructional Goals and Objectives for Social Studies, 2003*

This document is divided into five sections: citizenship, civics/government, economics, geography, and history. Within these themes, events are sporadically presented in a chronological manner. But more often than not, the sequencing is lost in the muck. Thus, no real historical narrative can be discerned. The primary grades suffer most from the document's commitment to vagueness. Sixth graders are given a general world overview—a world without Asia and Africa, that is. High school standards have omissions as well, plagued by generalities. Tenth graders are asked to “identify and assess foreign colonization” and “analyze and assess the concept of nation building.” These are ridiculous prompts, to be sure. These standards leave significant room for improvement.

WISCONSIN REPORT CARD

SUBJECT	2000	2006
English	A	C
U.S. History	F	F
Geography*	F	F
Math	C	D
Science	C	F
OVERALL GRADE	C-	D-

*World History for 2006

ENGLISH—C

- *Wisconsin Model Academic Standards for English Language Arts*
- *Wisconsin Knowledge and Concepts Examinations at Grades 4, 8, and 10*
- *Alignment Studies for Grades 4, 8, and 10*

Wisconsin's English standards are a middle-of-the-road affair. They do some things quite well. For example, they clearly expect students to use standard English in writing and speaking, and they adequately address most areas of language arts and reading. But the standards contain problems. Phonics and decoding skills are mentioned only within the larger category of "using effective reading strategies," which is not good. Further, much of the document lacks any discernible point and overflows with immeasurable or impossible-to-teach statements of instruction aspiration: "draw on a broad base of knowledge about the themes, ideas, and insights found in classical literature while reading, interpreting, and reflecting on contemporary texts." Wisconsin also needs to shorten its grade spans, which are currently too broad to be effective and targeted. Just as pressing is the need for some identification of culturally and historically significant literary authors, works, and periods. The Badgers are lucky to have eked out a C with these pages.

MATHEMATICS—D

- *Wisconsin Model Academic Standards for Mathematics, January 13, 1998*

Wisconsin's math standards get straight Ds across the board in all our categories, a reflection of the skimpy content and vague wording of these documents. Memorization of basic numbers facts is required, but students need not learn standard algorithms, as the state even allows students to create their own algorithm to solve various kinds of basic problems. Algebra standards are broad and vague, with little guidance given to students and teachers on the various ways in which students are to "work with algebraic expressions." Many standard topics are missing from the high school standards, including the binomial theorem, the arithmetic of rational functions, completing the square, and conic sections. Other crucial topics, such as Trigonometry and the Pythagorean Theorem, receive but cursory attention.

SCIENCE—F

- *Model Academic Standards 1998*

This document's flaws are myriad. It is vague. It is heavy in process. It is so light in content as to be nearly useless. What's worse, Wisconsin's school districts are required to devise a curriculum from these standards, such as this: "Using the science themes and knowledge of chemical, physical, atomic, and nuclear reactions, explain changes in materials, living things, earth's features, and stars." How does one do that? Depth is nowhere to be found. No teacher or curriculum developer can possibly derive a useful course of instruction from this document.

U.S. HISTORY—F

- *Wisconsin's Model Academic Standards for Social Studies, revised 1999*
- *Planning Curriculum in Social Studies, 2000*
- *Content and Learning, 2003, Wisconsin Department of Education*

Wisconsin's standards do not begin auspiciously. An introduction states, "The spotlight is now on 'what the student has learned' not on 'what the teacher has taught.'" Such an odd disconnect—all the more so because it's blatantly revealed in the standards—cannot bode well for the Badger State's students. Indeed, it does not. The rest of the standards are just as bad. For one, it is nearly impossible to determine the chronological order of the state's U.S. history sequence. American history is broken into a general outline of broad themes—most of which are simply historical eras, such as "pre-history" and "the Revolution and early national period." Nothing approaching a modest curriculum of historical events or figures is put forth. Despite this fact drought, Wisconsin still assumes its students will be able to parse complicated ideas and answer contentious academic questions. For example, eighth graders should, "Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights." But before answering such questions, won't Wisconsin's students require some factual knowledge?

WORLD HISTORY—F

- *Wisconsin's Model Academic Standards for Social Studies, revised 1999*

One wonders if Wisconsin outsourced its world history standards development to a crew of postmodernists. This document has no structure or method and, if it has any overarching goals, they're well hidden. The study of religion, for example, ends in 1100 C.E. When so much has occurred since that date, it's worth asking: Why? The postmodernist standards authors may answer: Why not? The document contains such a dearth of specificity, such a lack of chronology, that readers are reduced to hoping (praying?) that students learn about ancient Greece and Rome before the Renaissance. There's very little solid information to be found here, certainly no foundation for the study of world history. Good for the postmodernists, bad for little Johnny.

WYOMING REPORT CARD

SUBJECT	2000	2006
English	D	F
U.S. History	F	F
Geography*	F	F
Math	D	F
Science	F	F
OVERALL GRADE	F	F

*World History for 2006

ENGLISH—F

- *Wyoming Language Arts Content and Performance Standards*
- *Wyoming ELA Blueprint for all Grades –Year 2-4*
- *The Wyoming Assessment Handbook*

Wyoming presents its standards grade by grade from K-8, but it is unfortunate that high school has only one set of standards. Things go downhill from there. Benchmarks are organized in an incoherent way—some are simply incomprehensible. Many ask students to "use strategies" or "connect ideas," which are immeasurable with strikingly murky imperatives. Students are never expected to study American literature, and forget about any coverage of specific literary periods, key authors, or valuable works. Throughout, the noxious fumes of vagueness waft. If Wyoming doesn't retool these standards, the state's teachers may all instruct their students from the same document, but still teach entirely different things and have entirely different expectations. That's not what standards are about, Wyoming. That's not what they're about at all.

MATHEMATICS—F

- *Wyoming Mathematics Content and Performance Standards, Adopted July 7, 2003*

Wyoming's math standards suffer from redundancy, with the same or similar standards repeated for several different grades. Standard algorithms are never mentioned and students are encouraged choose their own problem-solving strategies. Probability is introduced prior to fractions, a flaw in mathematical reasoning, while algebra is given only cursory treatment in the lower grades. The middle and upper grades are little better, with a mere five standards in algebra in all of the eleventh grade. Important topics are missing, with no specific expectations regarding polynomials, linear inequalities, systematic algebraic manipulations, and exponential, logarithmic, or trigonometric functions.

SCIENCE—F

- *Wyoming Content and Performance Standards, 2003*

These standards are divided into three grade spans: K-4, 5-8, and 9-12. The problems start with that coarse division, and they are compounded by the dearth of content within each span. Readers may wonder if these standards were actually written by anyone with a science background. The pages are chock full of clichés and fluffy words, demonstrate a paucity of solid content, and fail to provide the state's teachers or students with any real guide. A perusal of the glossary turns up myriad errors of spelling, grammar, and content. Wyoming put no effort into crafting this document, and it shows.

*U.S. HISTORY—F

- *Wyoming Social Studies Content and Performance Standards, 1999, Wyoming Department of Education*

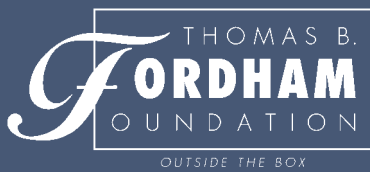
These standards “do not prescribe curriculum, courses, or instructional methodology,” but serve, instead, as a “framework” of knowledge required from Wyoming's students. Apparently, that required knowledge doesn't include history, because there's none to be found in the document. To reach the “Advanced Performance” level as an eleventh grader, for example, students must be able to

“provide evidence of the impact of key people, places, and events that have shaped history and continue to impact today's world,” or “describe and analyze the basic rights and responsibilities of a democratic society, including multiple examples of how they have participated in the political process.” There's no reason to continue. Just know—these are not U.S. history standards.

WORLD HISTORY—F

- *Wyoming Social Studies Content and Performance Standards, 2003*

Wyoming must be quite content with its vast expanses and inspiring vistas, because the state seems quite hesitant to acknowledge the existence of countries, cultures, or events beyond its borders. Not until eleventh grade does the state introduce its students to non-American people or events. Even then, the presentation is nebulous. But the entire document is enamored with generalities—eighth graders are asked to “identify people, events, problems, conflicts, and ideas and explain their historical significance.” That's a tough task, indeed, when the standards contain no details about any of those things. This document is an obfuscated mess. Wyoming should scrap it and start over. Sure, the state will lose the 37 minutes it took to write the thing, but sometimes you just have to bite the bullet.



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