Standards-Based Reforms in the United States of America: An Overview

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Biographical note

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Abstract

The purpose of this paper was to introduce readers to the main aspects of standards-based reforms occurring in the United States of America. Content analyses of policy documents, reports of studies on education reforms, standards' documents and curriculum frameworks, and verbal communications from officials in education agencies provided the main sources of information on standards-based reforms. The main aspects of standards-based reforms occurring during the three phases of developing standards at the national level, translating the national standards into state standards, and establishing assessment systems to support state standards are reported and discussed. The paper concludes by identifying key strengths and weaknesses of standards-based education, and predicting its prospects for further development.

Standards-Based Reforms in the United States of America: An Overview

The movement for education reform in the USA was an outcome of the public debate on social, economic and political issues ensuing from the release of a report by Peters and Waterman (1982). Extended to the education sector, this debate resulted in a spate of national studies on excellence in education, following the release of the report of the National Commission on Excellence in Education (1983). Generally, the reports of these studies were critical of the poor quality of public education, recommending a variety of strategies to reform education, particularly at the secondary level. Two waves of reforms during the 1980s effected improvements through small-scale school reform projects and by decentralising decision-making authority to local communities, but failed to bring about national education reform.

Convened by President George H. W. Bush in September 1989, the Charlottesville Education Summit involved the President and the 50 state governors considering ways of bringing about changes in the education system that would make the USA internationally competitive by the year 2000. They reached agreement to establish a process for setting national education goals, seeking greater flexibility and accountability in using federal resources to meet the goals, undertaking a state-by-state effort to restructure the education system, and reporting annually on progress in achieving the goals (Vinovskis, 1999). Promulgated in February 1990, the six National Education Goals became the foundation for America 2000 and later Goals 2000, and provided the impetus for defining national standards based in academic disciplines.

A multiplicity of trends in US education had concurred by this time leading conservatives and liberals to forge a consensus about focusing on what students should know and be able to do. Policy-makers set nationally recognised groups in key disciplines the task of developing national standards consisting of content, performance, and opportunity-to-learn standards. Content standards refer to broad descriptions of knowledge and skills that students should achieve in particular subject areas. Performance standards are examples and definitions of

knowledge and skills in which students need to demonstrate proficiency. Opportunity-to-learn standards, which address conditions necessary at each level of the education system to provide all students with opportunities to master content standards and meet performance standards, provide criteria covering six elements. These elements refer to the quality and availability of curricula, materials and technology, the capability of teachers to meet learning needs, the availability of professional development, the alignment of the curriculum to content standards, the adequacy of school facilities for learning, and the application of non-discriminatory policies.

In this article, the author presents an overview of the key aspects of standards-based education in the USA. It is recognised that many readers will be familiar with some of its features, but are unlikely to have gained a comprehensive understanding of the complexity of standards-based reforms at both the national and state levels in the USA. The significance of this article lies in providing current information on a topic that is gaining increasing importance as providing a key influence on reforming the curriculum and practices for student assessment. As policy-makers search for new solutions to intractable problems in curriculum reform, they are likely to turn to standards-based education as offering potential answers. By gaining a deeper understanding of the elements of standards-based reforms in the USA, policy-makers, administrators and educators are more likely to be able to assess the ramifications of applying its key elements within specific contexts in the USA and in other countries.

Methodology

The information for this article was collected over a fifteen-year period from 1990 to 2005. Policy documents obtained from federal and state education agencies since 1990 provided a valuable source for information on the historical background to standards-based reforms. Current information on standards-based reforms was obtained by accessing the web sites of federal and state education agencies, national subject associations and other education organisations listed on the portal, Developing Educational Standards. Furthermore, the accuracy of information obtained from these secondary sources was verified through personal correspondence with officials of these organisations. Data analysis involved reading all relevant documents and preparing summaries, which were then organised chronologically, and

incorporated into a commentary on standards-based reforms in the United States reported in a dissertation. This article presents a synthesis of the information presented in the commentary reported in the dissertation.

National Standards

The first effort to develop national standards preceded any initiative undertaken by the federal government. McLeod et al. (1996) reported that the national standards for Mathematics originated from the work of the Commission on Precollege Education in Mathematics, Science and Technology, which released a plan of action for improving mathematics, science and technology education for all school students (National Science Foundation, 1983). Discussions at a series of conferences led the National Council of Teachers of Mathematics (NCTM) to appoint a Commission on Standards for School Mathematics in 1986 to oversee the development of the national standards for Mathematics. Four working groups consulted focus groups within the education community to develop the national standards for Mathematics, which were released in March 1989. Subsequently, NCTM published professional standards for teaching mathematics in March 1991 and assessment standards in May 1995. In 1995, NCTM initiated a project to revise and amalgamate the three sets of standards into a single volume, which was released in April 2000.

In June 1991, the National Education Goals Panel created the National Council on Education Standards and Testing to examine the feasibility of national standards and a national system of assessments, and to recommend policies, structures and the mechanisms for setting them. In its report, the National Council on Education Standards and Testing (1992) recommended that voluntary and dynamic national standards should be developed initially for English, Mathematics, Science, History and Geography, which reflected high expectations, focus and direction. In addition, multiple measures consisting of individual student and large-scale sample assessments aligned to the national standards should be set. This recommendation prompted the United States Department of Education to fund projects by nationally recognised groups to develop national standards for Science, History, the Arts, Civics and Government, Geography, English Language Arts, and Foreign Languages in 1991 and 1992 (Ravitch, 1995). In addition,

independently funded projects were initiated to develop national standards for Social Studies, Health, Physical Education, and Economics.

The structures of the groups overseeing the development of the national standards, the organisation of their standards, and the release dates of original and revised versions are outlined in table 1. Processes for seeking consensus through extensive consultations within the education community, which characterised each of the national standards projects, were adopted from the process applied by NCTM to develop the national standards for Mathematics.

However, a controversy of national proportions arose between liberals and conservatives during the development of the national standards for History. The developmental process led to confrontation between minority groups seeking greater representation of their ethnic heritages and conservative groups seeking to represent democratic principles binding the USA together as a nation. In spite of resolving differences between these groups over the issue of multiculturalism and establishing criteria for World history during the standards-setting process, the national standards for History became controversial two weeks before their release. Lynne Cheney, the former chairperson of the National Endowment for the Humanities, published a criticism in the *Wall Street Journal* in October 1994. It argued that the national standards for History represented the effort of a small, radical group of academics, portrayed multicultural excess, and failed to depict the celebratory aspects of US history or emphasise Western civilisation in World history. A few days after Cheney's attack, Rush Limbaugh, the popular right-wing talk show host, told his audience that the national standards for History were part of the America-bashing multicultural agenda. Unleashed by Limbaugh's comments, conservative attacks were followed in December 1994 by adversarial debates on television between Cheney and prominent historians. The criticism then moved into the

Table 1

National Standards Projects

Subject Area	Developers	Format of Original Version	Release Date of Original Version	Format of Revised Version	Release Date of Revised Version
Arts	Consortium of National Arts Education Associations	content and achievement standards for grades K to 4, 5 to 8, and 9 to 12	March 1994		
Civics and Government	Centre for Civic Education	content standards for grades K to 4, 5 to 8, and 9 to 12	November 1994		
Economics	National Council on Economic Education and disciplinary associations	content standards and benchmarks for grades 4, 8, and 12	January 1997		
English Language Arts	National Council of Teachers of English and International Reading Association	content standards for grades K to 12	March 1996		
Foreign Languages	American Council on the Teaching of Foreign Languages and disciplinary associations	content standards for grades K to 12	January 1996	language-specific and generic content standards for grades K to 12	1999
Geography	National Council for Geographic Education and disciplinary associations	content, achievement and performance standards for grades K to 4, 5 to 8, and 9 to 12	October 1994		

Table 1
(Cont.)

National Standards Projects

Subject Area	Developers	Format of Original Version	Release Date of Original Version	Format of Revised Version	Release Date of Revised Version
Health	Joint Committee on National Health Education Standards	content standards and performance indicators for grades K to 4, 5 to 8, and 9 to 12	May 1995		
History	National Centre for History in the Schools	content standards for grades K to 4; content standards for US history for grades 5 to 12; and content standards for World history for grades 5 to 12	three volumes in October - November 1994	content standards for grades K to 4, content standards for US history for grades 5 to 12, and content standards for World history for grades 5 to 12	one volume in April 1996
Mathematics	National Council of Teachers of Mathematics	curriculum standards for grades K to 4, 5 to 8, and 9 to 12 and evaluation standards; professional standards for teaching mathematics; and assessment standards	March 1989; March 1991; May 1995	content and process standards for grades pre-K to 2, 3 to 5, 6 to 8, and 9 to 12	April 2000
Physical Education	National Association for Sport and Physical Education	content standards for grades K, 2, 4, 6, 8, 10, and 12	June 1995	content standards for grades K, 2, 4, 6, 8, 10, and 12	March 2004

Table 1
(Cont.)

National Standards Projects

Subject Area	Developers	Format of Original Version	Release Date of Original Version	Format of Revised Version	Release Date of Revised Version
Science	National Research Council of the National Academy of Sciences, National Academy of Engineering and Institute of Medicine	teaching standards, professional development standards, assessment standards, content standards for grades K to 4, 5 to 8, and 9 to 12, science education program standards, and science education system standards	November 1995		
Social Studies	National Council for the Social Studies	curriculum standards for grades K to 12; performance standards for grades K to 4, 5 to 8, and 9 to 12	September 1994		

political arena, when the Senate passed a resolution in January 1995 condemning the national standards for History by a vote of 99 to 1. In the August 1995 issue of *Time*, Republican House Speaker Newton Gingrich wrote that the US history volume distorted and undermined US history. Senate Majority Leader and Republican presidential candidate, Robert Dole, speaking to the American Legion at a Labour Day ceremony in Indianapolis in September 1995, said that the national standards for History disparaged America and its Western tradition. Soon afterwards, Secretary of Education Richard Riley responded by registering his own and President Clinton's opposition to using the existing standards as a basis for history curricula in US schools. However, officials of several national standards projects had met with leading critics of the national standards for History in January 1995. In an effort to save the national standards for History, the National Centre for History in the Schools agreed to the Council for Basic Education (CBE) convening two panels of historians, educators and public officials to determine whether they could be revised. In October 1995, both panels, one of which had examined the US history standards whilst the other had reviewed the World history standards, announced that the national standards, though flawed, could be revised. They found that the overwhelming majority of criticisms were targeted at teaching examples in the documents, rather than the actual standards. The national standards were revised between November 1995 and February 1996 by staff of the National Centre for History in the Schools, assisted by a small group of history educators. A newly formed Advisory Board to the National Centre for History in the Schools appraised the revisions in December 1995, and the two review panels and CBE endorsed the revised edition, which had compressed the original edition's three volumes into a single document. In spite of this process, the opinions of conservatives, divided about whether the revisions overcame their objections, led to Republicans in the House of Representatives attempting to censure the revised national standards for History in September 1996. However, the press received them favourably, and the controversy died away, but it had been so divisive that it led to numerous published interpretations, of which those by Nash et al. (1998) and Symcox (2002) best reflects the liberal viewpoint and Cheney (1995) the conservative standpoint.

The bipartisan political support evident at the commencement of national standards' projects, however, dissipated following the controversy surrounding the national standards for History. Although the conservative Right's attacks undermined the consensus for developing national standards following the election of Republican majorities to both houses of Congress in November 1994, the movement for standards-based reform was reinvigorated by several events. These included the second National Education Summit convened in March 1996, the re-election of President Clinton in November 1996, the State of the Union address in February 1997, the third National Education Summit held in September 1999, and the fourth National Education Summit convened in October 2001.

Further developments within standards-based education also played an important part in its revival. The lack of consistency between the national standards developed by the different subject-based groups led national organisations to synthesise the work of these projects. Issues relating to state-level standards-based reforms led national organisations to design information services and evaluation models to assist states, school districts and schools implement state standards. Another important activity fostered by a national organisation was the establishment of a national forum on standards-based education.

In July 1995, CBE initiated the Standards for Excellence in Education Project to synthesise the national standards' documents in the core subject areas into a more useful form for educators, parents, business leaders and the public. A working group of CBE staff analysed the documents produced by the Mathematics, Science, Civics and Government, History, Geography, the Arts, English Language Arts, and Foreign Language projects. After conducting a series of focus group meetings in 1996 to obtain responses regarding alternative formats for a single document, the working group established a common vocabulary for synthesising the standards, and defined benchmarks for grades 4, 8 and 12 across the eight subject areas. The outcome of the project, a book presenting condensed, edited and commonly-formatted versions of the national standards in the eight subject areas and a CD-ROM, allowed users to trace the presentation of the material back to the original source documents (Council for Basic Education, 1998).

By analysing different perspectives taken by subject-based groups involved in developing the national standards, researchers based at Mid-Continent Research for Education and Learning (McREL) concluded that analysis and synthesis of standards and benchmarks, specified in the national standards' documents, were needed. They classified the standards and benchmarks identified in 116 standards' documents published by national, state, and private groups, into three types of knowledge. Procedural knowledge involves processes critical to the content area. Declarative knowledge consists of information important to the content area, which is often acquired through understanding its component parts. Contextual knowledge includes information or skills that give particular meaning, because of the conditions that form part of their description. As well as coding standards according to these three categories, they classified standards and benchmarks into four bands: Level I for grades K to 2; Level II for grades 3 to 5; Level III for grades 6 to 8; and Level IV for grades 9 to 12. Applying these concepts to the analysis, 256 standards and 3968 related benchmarks were identified across 14 subject areas. Based on this analysis, McREL designed a database of standards and benchmarks, known as McREL's compendium, linked by subject areas to various web sites providing lesson plans, activities and curriculum resources for school districts and schools to construct their own standards and benchmarks (Kendall and Marzano, 1997). The effort to analyse standards' documents led to a concern that the amount of classroom time available to teach the full range of standards may be inadequate, a presumption that further research showed to be correct. McREL then conducted a study to synthesise the standards and benchmarks from the five most highly rated state standards' documents as a means of reducing the subject area content coverage to a manageable level. The content found in the exemplary documents was classified by mapping the content against McREL's compendium. This process led to the production of a master document containing all the knowledge and skills identified in the five documents, and where it was located in each document. The common knowledge and skills was identified to produce sets of benchmarks organised around essential standards for Language Arts, Mathematics, Science, Geography and History across the four bands.

In November 2000, McREL convened a meeting of 35 national education leaders to design the National Dialogue on Standards-Based Education, which was launched in April 2001 at Kansas

City, Missouri, where 130 participants distilled a list of topics related to standards-based education, and wrote collective statements on each topic. These topics were used as a basis for several threaded discussion forums on the National Dialogue on Standards-Based Education's web site. In collaboration with Public Agenda, McREL developed a process, based on the National Issues Forums, for participants to conduct three-hour dialogues, and provided training for local facilitators.

Founded in October 1996 as an outcome of the second National Education Summit, the Achieve Resource Centre on Standards, Assessment, Accountability and Technology for Governors (Achieve) played an important part in organising the third and fourth National Education Summits. Achieve also designed a Standards' Database on its web site, consisting of standards for Mathematics, English Language Arts, Science, and History and Social Studies organised into a consistent structure using McREL's compendium. Data on the standards of each state, territory and the Department of Defense Education Activity were collected from liaison officials appointed by each chief state school officer. Content area experts then reviewed the submitted materials, and tagged each standard using McREL's compendium.

In 1998, Achieve collaborated with CBE and the Learning Research and Development Centre at the University of Pittsburgh to develop a process for benchmarking state standards. Achieve provides four benchmarking services tailored to particular states' requirements. State standards may be benchmarked through brief or in-depth reviews. The brief review provides basic feedback on the content of standards as part of the developmental process. Achieve identifies the standards' strengths and weaknesses, and offers states action steps for improvement. The in-depth review involves thorough evaluation based on comparisons with exemplary standards from other states and countries, followed by detailed feedback and recommendations for improvements. Achieve also ensures that assessments a state is administering to students are aligned to the state's standards by examining them as a package, based on comparisons with other states and countries. Benchmarking also includes institutes for policy-makers designed to build capacity in aligning standards and assessments. Comprehensive reviews of systemic reform policies are also provided for states. A team of prominent experts reviews various

aspects of a state's education system, state policies and practices, interviews stakeholders, and makes recommendations to build on the reform strategy. Achieve's benchmarking services have been commissioned by Delaware, Florida, Illinois, Indiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, Ohio, Oklahoma, Oregon, Pennsylvania, Texas and Washington.

Founded in September 1992 by 51 national business organisations, the America 2000 Coalition served as a resource to raise public awareness of the need to achieve the National Education Goals, and for local communities to implement America 2000 strategies. In 1994, the America 2000 Coalition changed its name to the Coalition for Goals 2000, and developed an information system, GoalLine, providing members with a bulletin board, updates, a conference area, electronic mail, and a database of promising programs, standards, and assessments available in the USA. GoalLine was launched nationally in September 1994, and made available on the GoalLine web site in August 1998. In collaboration with Denis P. Doyle and Associates, the Coalition for Goals 2000 commenced a two-year project in 1995 to define the standards-setting process. First published in 1997 as a book and a companion CD-ROM for local educators and citizens, Doyle and Pimental (1999) released a revised version outlining an eight-step plan for the standards-setting process, illustrated by case studies of standards-based reforms in five school districts. In June 1997, the Coalition for Goals 2000 founded StandardsWork as a consulting project to provide technical assistance in standards' planning, drafting, benchmarking and alignment, student diagnostics, rapid response assistance to embattled school districts, and institutes for training. In January 2000, StandardsWork and the Education Leaders Council (ELC), formed by the chief state school officers of Arizona, Colorado, Florida, Georgia, Michigan, Pennsylvania and Virginia at a meeting at Burlington, Vermont, in July 1995, began collaborating on a project to create a results' card. Following agreement reached in the summer of 1999 on which data elements needed to be monitored, StandardsWork and ELC launched a pilot project in which the seven states used a prototype of more than 60 indicators to collect and analyse data to accurately determine school and student progress over time. In 2000, Maryland, Ohio and Pennsylvania joined the six remaining states to provide state data. In 2001, StandardsWorks published a prototype Results Card, an annual report analysing the impact of

each state's goals and policies on improving student performance, and a report examining the multiple measures of performance used in the Results Card. In March 2002, StandardsWork convened a conference to streamline the Results Card, simplify data collection procedures, and invite participating and new states to join. However, the project did not continue because of the perception that new regulations in the No Child Left Behind Act, making such data collection non-negotiable, would undermine a potential market for the Results Card.

State Standards

The Goals 2000: Educate America Act, passed by the Clinton administration in March 1994, required state education agencies to use the national standards as blueprints to develop and implement state standards and curriculum frameworks, which are aligned to state assessment systems. From July 1994, state education agencies applied to the United States Department of Education for Goals 2000 grants under Title III to develop and implement comprehensive, education improvement plans, which included establishing challenging state standards. The Goals 2000: Educate America Act required each state education agency to appoint a broadly representative panel to develop state improvement plans in consultation with the state governor and the chief state school officer. The Improving America's School Act, passed by the Clinton administration in October 1994, required each state to develop state content and performance standards for mathematics and reading by the 1997-1998 school year and assessments by the 2000-2001 school year appropriate for all students, including the disadvantaged.

Following enactment in December 2001 of the No Child Left Behind Act by President George W. Bush, Secretary of Education Rod Paige convened a negotiating committee in March 2002, which received advice from 140 interested parties on developing new standards and assessment provisions. In July 2002, Secretary Paige issued new proposals, and invited public comments, to which 140 interested parties submitted over 700 comments. In November 2002, Secretary Paige released the final regulations, requiring that by the 2005-2006 school year each state must measure students' progress in reading and mathematics in each of grades 3 to 8, and at least once during grades 10 to 12. By the 2007-2008 school year, states must also administer assessments in science at least once each during grades 3 to 5, 6 to 9, and 10 to 12. At the

beginning of 2003, each state was required to establish a definition of adequate yearly progress to use each year to determine the achievement of each school district and school. Definitions were required to meet 10 criteria. First, a single, statewide accountability system must be applied to all public schools. Second, all public school students must be included in the accountability system. Third, adequate yearly progress must be based on expectations for growth in student achievement that are continuous and substantial. Fourth, the state must make annual decisions about the achievement of all public schools. Fifth, all public schools must be accountable for the achievement of individual subgroups. Sixth, adequate yearly progress must be based primarily on the state's academic assessments. Seventh, adequate yearly progress must include graduation rates for high schools, and an additional indicator selected for middle and elementary schools. Eighth, adequate yearly progress must be based on reading and mathematics achievement. Ninth, the accountability system must be statistically valid and reliable. Tenth, the state must ensure that at least 95 percent of students in each subgroup enrolled in a school are assessed. In defining adequate yearly progress, each state sets the minimum levels of improvement that school districts and schools must achieve within time frames specified in the No Child Left Behind Act. Each state begins by setting a starting point that is based on the performance of its lowest achieving demographic group or the lowest achieving schools. The state then sets the level of student achievement that a school must attain in order to make adequate yearly progress. Subsequent thresholds must increase at least once every three years until at the end of 12 years, all students in the state are achieving at the proficient level in state assessments of reading language arts, mathematics and science.

The cumulative effects of these laws are reflected in the nature of states' standards and assessment systems. The title of each state's standards, the type of standards and related components, the standards' adoption date and revision process, and the associated programs for progressive and end-of-course assessments of the standards are outlined in table 2.

The analysis of the state profiles in table 2 indicates particular characteristics of the types of states' standards and related components are associated with regional traditions and styles of governance that have been extended to the education sector. An examination of the state

profiles for the north eastern and mid-western states, where the tradition of local control is strongest, indicates that these states can be categorised into four groups. The six New England states form a distinct group with five showing consistency in deriving state standards from consensual common cores of learning, acknowledging concerns for establishing the philosophical and moral principles underlying educational goals, which reflect the ethos of New England's puritanical and cultured heritage. Furthermore, all the New England states, except Maine, incorporate state standards into curriculum frameworks or guides. The five states of the middle Atlantic seaboard reflect a more cosmopolitan outlook characteristic of the densely populated commercial and financial centre of the USA by showing a more diverse pattern in the types of state standards and related components than the New England states. Whilst Pennsylvania has adopted only state standards, Delaware has incorporated state standards into curriculum frameworks, and Maryland, New Jersey and New York support state standards with curriculum frameworks or guides. The rural, but enterprising, culture of the states of the mid-west and Great Plains, long regarded as the heartland of isolationist attitudes, is mirrored in four approaches adopted to reconcile the definition of state standards with a strong tradition of local control. The states of Kansas, Minnesota and South Dakota form a subgroup in which decision-making authority in standards-based reform shows greater acceptance of centralised control. The solutions applied in these states vary with Kansas

Table 2

State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Alabama	Alabama Course of Study	state standards (content standards) incorporated into curriculum frameworks	incorporation initiated with subject reviews in 1995; subjects reviewed over a six-year rotation schedule	none	Alabama High School Graduation Examination: reading, language, mathematics, science, social studies (10 to 12)
Alaska	Alaska Standards	state standards (content and performance standards) supported by curriculum frameworks	mid 1994 to December 1999; no revision process	Alaska Benchmarks Examinations: reading, writing, mathematics (3, 6, 8)	High School Graduation Qualifying Examination: reading, writing, mathematics (10)
Arizona	Arizona Academic Standards	state standards (content and performance standards)	August 1996 to September 2000; no revision process	Arizona's Instrument to Measure Standards: reading, writing, mathematics (3, 5, 8, high school)	none
Arkansas	Arkansas Curriculum Frameworks	state standards (content standards and student learning expectations) incorporated into curriculum frameworks	1996; subjects reviewed over a six-year rotation schedule	Benchmark Examinations: reading, writing, mathematics (4, 6, 8)	End-of-Course Examinations: algebra, geometry, literacy (11)

Table 2
(Cont.)

State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
California	California Content Standards	state standards (content standards) supported by curriculum frameworks	December 1997 to January 2001; no revision process	California Standards Tests: English language arts, mathematics, history-social science, science (2 to 11)	California High School Exit Examination: English language arts, mathematics (10 to 12)
Colorado	Colorado Model Content Standards	model state standards (content standards)	May 1995 to January 2000; no revision process	Colorado Student Assessment Program: reading (4 to 10), writing (3 to 10), mathematics (5 to 10), science (8)	none
Connecticut	Connecticut Framework	state standards (content and performance standards derived from a common core of learning) incorporated into curriculum frameworks, and supported by curriculum guides	February to June 1998; first revision of some subjects approved in 2004	Connecticut Mastery Test: reading, writing, mathematics (4, 6, 8, 10)	none
Delaware	Delaware Curriculum Frameworks	state standards (content standards and performance indicators) incorporated into curriculum frameworks and supported by curriculum guides	June 1995 to January 1998; no revision process	Delaware Student Testing Program: reading, writing, mathematics (3, 5, 8, 10), science, social studies (4, 6, 8, 11)	none

Table 2
(Cont.)

State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Department of Defense Education Activity (DoDEA)	DoDEA Curriculum Standards	department standards (content and performance standards)	September 1998; subjects reviewed over a six-year rotation schedule initiated in August 2001	none	none
District of Columbia	Standards for Teaching and Learning	district standards (learning standards)	1997; first revision of some subjects approved in 2005	none	none
Florida	Sunshine State Standards	state standards (content standards, benchmarks, and grade level expectations) supported by curriculum frameworks	May 1996; no revision process	Florida Compre-hensive Assessment Test: reading (3, 4, 8, 10), writing (4, 8, 10), math-ematics (3 to 10), science (5, 8,10)	none
Georgia	Georgia Performance Standards	state standards (performance standards)	Quality Core Curriculum: June 1988; first revision approved in November 1997; the development of Georgia Performance Standards, undertaken from June 2002 to June 2004, replaced the Quality Core Curriculum	Criterion-Referenced Competency Test: reading, language arts, mathematics (1 to 8), science, social studies (3 to 8)	Georgia High School Graduation Test: social studies, English language arts, mathematics, science, writing (11, 12)

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Hawaii	Hawaii Content and Performance Standards	state standards (content standards and benchmarks) supported by curriculum frameworks	June 1994; reviewed every four years, first revision approved in August 1999	HCPS II State Assessment Program: reading, mathematics, writing (3, 5, 8, 10)	none
Idaho	Idaho Achievement Standards	state standards (content standards, content knowledge and skills)	April 1999 to November 2001; no revision process	Idaho Standards Achievement Test: reading, language usage, mathematics, science (2 to 10)	none
Illinois	Illinois Learning Standards	model state standards (content standards and benchmarks)	July 1997; annual evaluations inform reviews every three years	Illinois Standards Achievement Test: reading, mathematics (3, 8), science (4, 7)	Prairie State Achievement Examination: reading, mathematics, science (11, 12)
Indiana	Indiana Academic Standards	state standards (sample progress indicators) supported by curriculum frameworks	June 2000 to May 2004; no revision process	Indiana Statewide Testing for Educational Progress Plus: English language arts, mathematics (3 to 10), science (5, 7)	Graduation Qualifying Examination: English language arts, mathematics, algebra (10 to 12)
Iowa	none	district standards	vary from school district to school district	district assessment systems	district assessment systems

Table 2
(Cont.)

State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Kansas	Kansas Curricular Standards	state standards (content standards, benchmarks and indicators)	July 1993 to July 1996; reviewed every three years, first revision completed between June 1998 and May 2001, second revision of some subjects approved in July 2003	Kansas Computerised Assessments: mathematics, reading, science, social studies (4 to 11)	none
Kentucky	Transform-ations: Kentucky's Curriculum Framework	state standards (academic expectations) incorporated into curriculum frameworks	March 1993; subjects reviewed over a six-year rotation schedule	Kentucky Core Content Test: reading (4, 7, 10), mathematics, arts and humanities (5, 8, 11), science (4, 7, 11), social studies (5, 8, 11), writing (4, 7, 12), practical living, vocational studies (5, 8, 10)	none
Louisiana	Louisiana Content Standards	state standards (benchmarks) supported by a model curriculum framework	April 1996 to May 1997; first revision of some subjects approved between March 2001 and March 2004	Louisiana Educational Assessment Program: English language arts, mathematics, science, social studies (4, 8)	Graduation Exit Examination: English language arts (10), mathematics, science, social studies (11)

Table 2
(Cont.)

State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Maine	Learning Results	state standards (content standards and performance indicators derived from a common core of learning)	May 1997; no revision process	Maine Educational Assessment: reading, writing, mathematics, science technology (4, 8, 11)	none
Maryland	Maryland Content Standards	state standards (content standards) supported by a voluntary state curriculum	July 1999; no revision process	Maryland School Assessment: mathematics (4 to 8), reading (4 to 8, 10)	Maryland High School Assessment : geometry, biology (high school)
Massachusetts	Massachusetts Curriculum Frameworks	state standards (learning standards derived from a common core of learning) incorporated into curriculum frameworks	January 1996 to June 1997; revised periodically, all subjects revised between March 1999 and October 2002	Massachusetts Compre-hensive Assessment System: reading (3), English language arts composition, language and literature (4, 7, 10), mathematics (4, 6, 8, 10), science and technology, history and social science (5, 8)	none

Table 2
(Cont.)

State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Michigan	Michigan Curriculum Framework	model state standards (content standards and benchmarks) incorporated into curriculum frameworks	July 1995: no revision process	Michigan Educational Assessment Program: English language arts, mathematics (3 to 8), science (5, 8), social studies (6, 9)	Michigan Educational Assessment Program High School Tests: English language arts, mathematics, science, social studies (10 to 12)
Minnesota	Minnesota Academic Standards	state standards (content standards and benchmarks) supported by curriculum frameworks	Minnesota Graduation Standards, May 1998; the development of Minnesota Academic Standards, which was undertaken from February 2003 to May 2004, replaced the Minnesota Graduation Standards; subjects reviewed over a four-year rotation schedule commencing in 2006	Basic Standards Test: reading, mathematics (8), writing (10); Minnesota Compre-hensive Assessments: reading (3 to 8, 10), mathematics (3 to 8, 11), writing (5, 10)	none
Mississippi	Mississippi Curriculum Frameworks	state standards (competencies and objectives) incorporated into curriculum frameworks	incorporation initiated with subject reviews in 1994; subjects reviewed over a six-year rotation schedule	Mississippi Curriculum Test: reading, language, mathematics (2 to 8), writing (4, 7)	Subject Area Testing Program: algebra (8), biology (9), English (10), U.S. history (11)

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Missouri	Show-Me Standards	state standards (knowledge and performance standards) supported by model curriculum frameworks	January 1996; no revision process	Missouri Assessment Program: com-munication arts (3, 7, 11), mathematics (4, 8, 10), science (3, 7, 10), social studies (4, 8, 11)	none
Montana	Montana Content and Performance Standards	state standards (content standards and benchmarks) supported by model curriculum frameworks	September 1998 to September 2001; subjects reviewed over a five-year rotation schedule commencing in July 2003	Criterion Referenced Test: reading, mathematics (4, 8, 11)	none
Nebraska	Nebraska Standards	model state standards (content and performance standards) supported by curriculum frameworks	February to May 1998; first revision of some subjects approved between September 2001 and September 2003	School-based Teacher-led Assessment and Reporting System: writing (4, 8, 11), district assessments in reading, speaking, listening, mathematics (4, 8, 11)	none
Nevada	Nevada Academic Standards	state standards (content and performance standards) supported by curriculum frameworks	September 1998 to December 1999; no revision process	Criterion Referenced Test: reading, mathematics (3 to 8), science (5, 8), writing (4, 8)	High School Proficiency Examination: reading, writing, mathematics, (10 to 12)

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
New Hampshire	New Hampshire Curriculum Frameworks	state standards (curriculum and proficiency standards) incorporated into curriculum frameworks and supported by curriculum guides	1995 to April 2001; first revision commenced in 2004	New Hampshire Educational Improvement and Assessment Program: reading, mathematics (3, 6, 10)	none
New Jersey	New Jersey Core Curriculum Content Standards	state standards (cumulative progress indicators) supported by curriculum frameworks	May 1996; reviewed every five years, first revision completed between May 2001 and October 2004	New Jersey Assessment of Skills and Knowledge: language arts literacy, mathematics (3 to 4) science (4); Grade 8 Proficiency Assessment: language arts literacy, mathematics, science (8)	High School Proficiency Assessment: language arts literacy, mathematics, science (11)
New Mexico	New Mexico Content Standards and Benchmarks	state standards (content standards with benchmarks, and performance standards)	1996; subjects reviewed over a six-year rotation schedule commencing in October 1999, first revision of some subjects approved between October 1999 and August 2003	New Mexico Standards-based Assessment: reading, writing, mathematics, science (3 to 9); New Mexico High School Standards Assessment: reading mathematics (11)	New Mexico High School Competency Examination: reading, English, mathematics, science social science (10)

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
New York	Learning Standards	state standards (key ideas and performance indicators or checkpoints) supported by curriculum guides	March to July 1996; first revision commenced in June 2003	New York State Testing Program: English language arts, mathematics (3 to 8)	Regents Examinations: English language arts, languages other than English, mathematics, science, social studies (10 to 12)
North Carolina	North Carolina Standard Course of Study	state standards (competency goals and objectives) supported by curriculum guides	incorporation initiated with subject reviews in 1994; subjects reviewed over a five-year rotation schedule	End-of-Grade Tests: reading, mathematics (3 to 8); Writing Assessment (4, 7, 10); Test of Computer Skills (8)	End-of-Course Tests: English, algebra, physical science, civics and economics, geometry, biology (11, 12)
North Dakota	North Dakota Content Standards	model state standards (benchmarks)	1996 to January 2003; subjects reviewed over a six-year rotation schedule	North Dakota State Assessment: reading language arts, mathematics (3 to 8, 11)	none
Ohio	Ohio Academic Content Standards	state standards (standards, benchmarks and indicators) supported by model curriculum frameworks	December 2001to December 2003; no revision process	Achievement Tests: reading, mathematics (3 to 8), science, social studies (5, 6), writing (7)	Ohio Graduation Test: reading, mathematics, science, social studies, writing (10)

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Oklahoma	Priority Academic Student Skills	state standards (content standards)	September 1993; reviewed every three years, first revision approved in March 1997, second revision approved in July 1999, third revision approved in August 2002	Oklahoma Core Curriculum Tests: mathematics, reading (3 to 8), science, writing (5, 8), social studies (5), geography (7), U.S. history, constitution, government (8)	End-of-Instruction Tests: English, algebra, biology, U.S. history (10 to 12)
Oregon	Oregon Standards	state standards (content standards and benchmarks) supported by curriculum frameworks	September to December 1996; reviewed every two years, first revision approved between April 2001 and January 2003	Knowledge and Skills Assessments: reading, literature, mathematics (3 to 8, 10), science, social studies (5, 8, 10), writing (4, 7, 10)	none
Pennsylvania	Pennsylvania Academic Standards	state standards (performance standards)	from November 1998 and continuing; no revision process	Pennsylvania System of School Assessment: mathematics, reading (3 to 8, 11), writing (5, 8, 11)	none

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Rhode Island	Rhode Island Curriculum Frameworks	state standards (content standards or benchmarks derived from a common core of learning) incorporated into curriculum frameworks	October 1995 to December 2001; no revision process	New Standards Reference Examinations: English language arts, mathematics (4, 8, 10): Rhode Island Writing Assessment (3, 7, 10, 11); Rhode Island Health Education Assessment (5, 9)	none
South Carolina	South Carolina Curriculum Standards	state standards (content standards) supported by curriculum frameworks	November 1995 to May 2000; reviewed every four years, first revision from October 1998 and continuing	Palmetto Achievement Challenge Test: English language arts, mathematics, science, social studies (3 to 8); High School Examination: English language arts, mathematics (10)	End-of-Course Examinations: algebra or mathematics for technologies, English, physical science, biology (9 to 12)
South Dakota	South Dakota Content Standards	state standards (goals, indicators and benchmarks) supported by curriculum guides	June 1996; revised versions approved from December 1998 to June 2000, reviewed every four years, first revision approved 2004	Dakota Assessment of Content Standards: mathematics, reading (2 to 12), language arts, science (2 to 8)	none

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Tennessee	Tennessee Curriculum Frameworks	state standards (content standards, learning expectations and performance indicators) incorporated into curriculum frameworks	incorporation initiated with subject reviews in 1992; subjects reviewed over a six-year rotation schedule, first revision of some subjects approved 2004	Tennessee Compre-hensive Assessment Program Achievement Tests: reading, language arts, mathematics, science, social studies (3 to 8)	Gateway Tests: English, algebra, biology (9 to 12)
Texas	Texas Essential Knowledge and Skills	state standards (basic under-standings)	April to July 1997; core subjects reviewed over a six-year rotation schedule, other subjects reviewed according to a rotation schedule determined by the State Board of Education	Texas Assessment of Knowledge and Skills: reading (3 to 9), writing, (4, 7), English language arts (10, 11), mathematics (3 to 11), science (5, 10, 11), social studies (8, 10, 11)	Texas Assessment of Academic Skills: reading, mathematics, writing (9 to 12)
Utah	Utah Core Curriculum	state standards (objectives)	1987; subjects reviewed over a five-year rotation schedule	Utah Performance Assessment System for Students: language arts, mathematics, science (3 to 8)	Utah Basic Skills Competency Test: reading, writing, mathematics (10, 11)

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
Vermont	Vermont Framework of Standards and Learning Opportunities	state standards (content and performance standards) derived from a common core of learning, and incorporated into curriculum frameworks	January 1996; reviewed every two years, first revision approved in 2000	New Standards Reference Examinations: English language arts, mathematics (4, 8, 10), Vermont-PASS: science (5, 9, 11)	none
Virginia	Standards of Learning	state standards (content standards) supported by curriculum guides	June 1995 to April 2001; reviewed every seven years, first revision of some subjects approved in March 2001	Virginia Standards of Learning Assessments: English, mathematics, science, history and social science (3, 5, 8)	Virginia Standards of Learning Assessments: English, mathematics, science, history and social science (10 to 12)
Washington	Essential Academic Learning Requirements	state standards (benchmarks) supported by curriculum frameworks	October 1995 to April 1996; first revision of some subjects approved in February 2004	Washington Assessment of Student Learning: mathematics, reading, writing (4, 7, 10), science (5, 8, 10)	none

Table 2
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State Standards and Assessments

State	Title of State Standards	Type of Standards and Related Components	Adoption Date and Revision Process	Progressive Assessment	End-of-Course Assessment
West Virginia	West Virginia Content Standards and Objectives	state standards (objectives and performance descriptors)	West Virginia Instructional Goals and Objectives, 1997; the development of the West Virginia Content Standards and Objectives, which was undertaken between April 2001 and April 2003, replaced the West Virginia Instructional Goals and Objectives	West Virginia Educational Standards Test: reading language arts, mathematics, science, social studies (3 to 8), reading language arts, mathematics, science (10)	none
Wisconsin	Wisconsin Model Academic Standards	model state standards (content and performance standards) supported by curriculum guides	September 1997 to 1998; first revision of one subject approved in February 2000	Wisconsin Knowledge and Concepts Examination Criterion-Referenced Tests: reading, mathematics (3 to 8,10)	none
Wyoming	Wyoming Content and Performance Standards	model state standards (content standards, benchmarks and performance standards)	June 1998 to June 2001; first revision was approved in July 2003	Wyoming Compre-hensive Assessment System: reading, writing, mathematics (4, 8, 11)	none

adopting only state standards, whilst Minnesota and South Dakota support state standards with curriculum frameworks or guides. The states of Missouri, Montana and Ohio form a second subgroup exhibiting less centralised control with state standards being supported by model curriculum frameworks or guides. The approach of using state-developed standards as models for developing local standards is reflected in the states comprising the third subgroup, which may be divided into two geographical clusters. The states of Michigan, Illinois and Wisconsin, adjoining the Great Lakes, form one cluster, and the states of Colorado, Nebraska, North Dakota and Wyoming, the most westerly states in this group, form a second cluster. However, these states show little consistency in their application of the concept of model state standards. Colorado, Illinois, North Dakota and Wyoming have adopted only model state standards, Michigan incorporates model state standards into curriculum frameworks, and Nebraska and Wisconsin support model state standards with curriculum frameworks or guides. The fourth group, represented by only the state of Iowa, made little, if any, concession to the tradition of local control by being the only state failing to develop state standards.

Some of the south-eastern, southern and western states, which employ centralised processes of decision-making, have a long history of educational reform. Once recognised for their low educational achievement, many of the states concentrated in the southern Appalachians and the southern Atlantic seaboard were the first states to enact systemic education reforms in the 1980s. Early legislative reforms in Mississippi in 1982, Arkansas in 1983, and Tennessee, South Carolina and North Carolina in 1984 provided little impetus for curriculum reforms. The reform movement culminated in the later and more comprehensive Quality Basic Education Act of 1985 in Georgia, which led to the development of the Quality Core Curriculum, and the Kentucky Education Reform Act of 1990, which not only led to major curriculum reform but transformed Kentucky's antiquated education system. The reform movement of the 1980s did not affect most of the western states and those states bordering this group to the south and north to the same extent. Rapidly growing populations, partly derived from high immigration rates, led state education agencies in California, Florida and Texas to respond to dynamic social changes affecting their large education systems with the most ambitious investments in setting standards in the USA. Curriculum reform in California, initiated in 1983 by systemic education

reform, was integrated into standards-based reform commencing in 1995. Standards-based reform in Florida focused on applying the Curriculum Planning Tool, an electronic database of learning activities designed to facilitate teachers' planning that reflects the goals and standards specified in the Sunshine State Standards. In Texas, the Texas Essential Knowledge and Skills were implemented by contracting a wide range of regional centres to develop professional resources. The analysis of the related components of state standards in the state profiles for south-eastern, southern and western states shows that these states can be categorised into three groups. Arizona, Georgia, Idaho, New Mexico, Oklahoma, Texas, Utah and West Virginia adopted only state standards. Alabama, Arkansas, Kentucky, Mississippi and Tennessee incorporated state standards into curriculum frameworks. Alaska, California, Florida, Hawaii, Indiana, Louisiana, Nevada, North Carolina, Oregon, South Carolina, Virginia, and Washington supported state standards with curriculum frameworks or guides.

The analysis of the types of states' standards in the state profiles shows considerable variety with limited conformity to the basic pattern of state standards presenting content standards. In Alabama, California, Colorado, Maryland, Minnesota, Oklahoma, South Carolina and Virginia, state standards list only content standards. In Georgia and Pennsylvania, state standards list only performance standards. However, the predominant pattern of augmenting content standards with performance standards or benchmarks is found in a greater number of jurisdictions. Alaska, Arizona, Connecticut, Delaware, the Department of Defense Education Activity, Hawaii, Illinois, Kansas, Maine, Michigan, Minnesota, Montana, Nebraska, Nevada, New Mexico, Ohio, Oregon, Rhode Island, Vermont, Wisconsin and Wyoming use some variation of this pattern. The remaining 21 states use a large variety of formats that defy categorisation.

All jurisdictions, except Pennsylvania, have completed the development of state standards. Several procedures are used to revise state standards. Rotation schedules are used to revise state standards in Alabama, Arkansas, the Department of Defense Education Activity, Kentucky, Mississippi, Montana, New Mexico, North Carolina, North Dakota, Tennessee, Texas and Utah. State standards are reviewed simultaneously at the end of specified periods in Hawaii, Illinois,

Kansas, New Jersey, Oklahoma, Oregon, South Carolina, South Dakota, Vermont and Virginia. State standards are reviewed at the end of unspecified periods in Georgia, Massachusetts, Minnesota, West Virginia and Wyoming. Revisions of state standards for some subjects have been commenced or approved in Connecticut, the District of Columbia, Louisiana, Nebraska, New Hampshire, New York, Washington and Wisconsin. School districts are responsible for revising local standards in Iowa. Alaska, California, Colorado, Delaware, Florida, Idaho, Indiana, Maine, Maryland, Michigan, Missouri, Nebraska, Nevada, Ohio, Pennsylvania and Rhode Island do not apply any process for revising state standards.

All jurisdictions, except Alabama, the Department of Defense Education Activity, the District of Columbia and Iowa have state-level, progressive assessment systems comprising of one or more subjects aligned to their state standards. However, the coverage of subjects varies considerably between states with one jurisdiction testing only one subject, five jurisdictions testing two subjects, 14 jurisdictions testing three subjects, 18 jurisdictions testing four subjects, six jurisdictions testing five subjects, two jurisdictions testing six subjects, and two jurisdictions testing seven subjects. At the state level, Nebraska tests writing with local assessments in reading, speaking, listening and mathematics. New York tests English language arts and mathematics. Maryland, Montana, New Hampshire and Wisconsin test mathematics and reading. North Dakota tests English language arts, mathematics and reading. Indiana, New Jersey, Utah and Vermont test English language arts, mathematics and science. Illinois tests mathematics, reading and science. Alaska, Arizona, Arkansas, Connecticut, Hawaii, Minnesota, Pennsylvania and Wyoming test mathematics, reading and writing. California, Louisiana, Michigan, Missouri, South Carolina and Virginia test English language arts, mathematics, science and social studies. Idaho and South Dakota test English language arts, mathematics, reading and science. Mississippi tests English language arts, mathematics, reading and writing. Rhode Island tests English language arts, health, mathematics and writing. Colorado, Florida, Maine, Nevada, New Mexico and Washington test mathematics, reading, science and writing. Kansas tests mathematics, reading, science and social studies. North Carolina tests computer skills, mathematics, reading and writing. Delaware and Ohio test mathematics, reading, science, social studies and writing. Georgia, Massachusetts, Tennessee and West Virginia test English

language arts, mathematics, reading, science and social studies. Oregon and Texas test English language arts, mathematics, reading, science, social studies and writing. Oklahoma tests geography, mathematics, reading, science, social studies, US history and writing. Kentucky tests the arts and humanities, mathematics, practical living, science, social studies, vocational studies and writing.

Only 23 jurisdictions have a state-level, end-of-course assessment system comprising of two or more subjects aligned to their state standards. However, the coverage of subjects varies considerably between states with five jurisdictions testing two subjects, eight jurisdictions testing three subjects, five jurisdictions testing four subjects, and five jurisdictions testing five subjects. Arkansas, California and Indiana test English language arts and mathematics. Tennessee tests English language arts and science. Maryland tests mathematics and science. North Carolina tests civics and economics, mathematics and science. New Jersey and South Carolina test English language arts, mathematics and science. Illinois tests reading, mathematics and science. Alaska, Nevada, Texas and Utah test reading, mathematics and writing. Ohio and Virginia test mathematics, science, social studies and writing. Michigan, Mississippi and Oklahoma test English language arts, mathematics, science and social studies. Georgia and Louisiana test English language arts, mathematics, science, social studies and writing. Alabama and New Mexico test English language arts, mathematics, reading, science and social studies. New York tests English language arts, languages other than English, mathematics, science and social studies. The remaining 29 jurisdictions have no state-level, end-of-course assessment system aligned to their state standards.

Conclusion

This review has shown that the tradition of state responsibility and local control for education in the USA hindered the rise of a strong movement towards developing a national curriculum. In spite of this trend, there was considerable public support during the late 1980s and early 1990s for national initiatives in curriculum reform to support the national education reform strategy. In response, the federal government sought to develop voluntary national standards in various subject areas that would support high academic achievement by students. However, the success

of the national standards' projects was diminished by two factors. First, the controversy over the national standards for History weakened the authority of the national standards' documents. Second, the lack of consensus between different subject-based groups developing national standards led to concerns about consistency between the various national standards' documents.

The translation of the national standards into state standards represented the most critical challenge for developing curricula around clearly defined sets of expectations, and assessment systems that measured whether students are meeting these expectations. The analysis of states' standards presented in this article shows that this process has been resolved in different ways among the various states. It has led to considerable complexity in the pattern by which state standards have been aligned to the curriculum and linked to assessments. The evidence suggests that regional traditions and styles of governance that have been extended to education form perhaps the most important factor influencing the standards-setting processes employed by the states. Arising in the south-eastern, southern and western states a century ago to regulate the activities of business corporations, protect weaker groups in the community and provide mechanisms for new groups to participate, centralised bureaucracies extended decision-making from the local to the state level in these states' education systems. Whilst it is clear that policy-makers in the states in these regions had few concerns about developing strong state standards, the issue of retaining decision-making authority at the local level became a political imperative for policy-makers in some mid-western states.

This overview shows that standards-based education became entrenched in the states during the 1990s. This situation arose from the domination of the national education policy agenda with the concept that academic standards should provide direction for developing curricula and assessments, and should be linked to teacher development, accountability and other education policies. Both conservative and liberal policy-makers agreed on the merits and worth of this approach to reform, which persisted despite changes in political leadership and criticisms about the quality of particular standards and assessments. Policy-makers overcame these criticisms by adopting mixed models that balanced newer and more traditional approaches to content, assessments, professional development and other aspects of education reform. The tendency to

maintain vitality by shifting emphasis from content in the initial phase to assessment in the most recent phase suggests that standards-based education may not follow some other reforms by shining brightly for a few years and then fading. If standards-based education persists as the main driving force in the national education reform strategy in the USA, it is likely to have an even more profound influence in the future on curriculum reforms in other countries.

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