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ABSTRACT

To help educators with accountability concerns, this guide provides a method for establishing and evaluating accountability systems in states, districts, and schools. Standards-based accountability refers to collecting and reporting information based on students' progress toward achieving established standards. To be useful, an accountability system must meet the varying information needs of parents, educators, policy-makers and the public. Ten policy issues can help establish this information base including: defining purposes and goals; establishing a design and implementing a process; deciding who will be held accountable and how progress will be measured; how performance and progress will be compared; at what levels data will be collected and reported; administrators should weigh the costs of implementing such a system; creating assessment with rewards, sanctions, and other incentives; helping the public understand results; supporting teachers, schools, and districts; and fine-tuning the system. Two appendices provide indicators of state accountability systems and a glossary of terms. (RJM)

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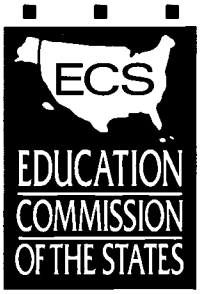
Designing and Implementing Standards-based Accountability Systems



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Designing and Implementing Standards-Based Accountability Systems

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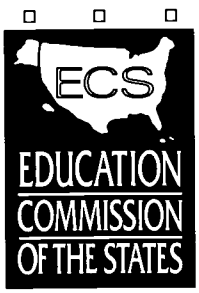

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EXECUTIVE SUMMARY

The challenge facing American education is to help all students learn at higher levels than ever before. Setting high academic standards — clearly defined statements of what students are expected to know and be able to do at various points in their schooling — is a crucial part of meeting this challenge. Standards provide policymakers, educators, parents and the public with the means to monitor, measure and continuously improve student achievement and school quality.

With the use of content standards as the foundation for education reform, many state leaders are rethinking the structure, purpose and emphasis of their states' accountability systems. Among the major questions policymakers must address are the following:

- Who should be held accountable? For what?
- How should student and/or school progress be measured, compared and reported?
- At what levels of the system will accountability data be collected, analyzed and reported?
- What consequences will be attached to the results?
- How can accountability systems be structured to support greater flexibility?
- How can public support and understanding of the accountability system be encouraged?
- What is the state role in creating support structures for districts?

What Is Accountability?

Accountability refers to the systematic collection, analysis and use of information to hold schools, educators and others responsible for student performance. *Standards-based accountability* refers to collecting and reporting information based on student progress on achieving established standards. Elements of an accountability system include input measures (such as qualification of teachers or dollars spent on education), process measures (such as descriptions of how mathematics or science classes are taught) and outcome measures (such as student achievement measures or graduation rates).

Developing Coordinated Accountability Systems

To be useful, an accountability system must meet the varying information needs of parents, educators, policymakers and the public. To address these needs, state, district and school accountability systems should be developed in a coordinated fashion. The *state* accountability system should monitor the progress of schools and districts and hold them accountable for helping students achieve high standards. *District* accountability systems should collect information related to state and district goals and standards and hold schools accountable for their performance targets. *School* accountability systems should focus on collecting achievement data related to school, district and state goals while providing diagnostic information for improving student learning and school improvement.

Policy Issues in Designing and Implementing Accountability Systems

POLICY ISSUE 1: Defining Purposes and Goals

Accountability systems must be designed to achieve specific purposes. These purposes can include:

- Monitoring and reporting school and student progress on achieving standards
- Evaluating the performance of the education system
- Holding schools and others accountable
- Allocating resources
- Certifying or promoting students
- Improving student and school performance
- Selecting or placing students
- Planning staff development.

The challenge is to design a coordinated accountability system that emphasizes different purposes at different levels — state, district, school and classroom — based on the feasibility of data collection, data needs and information needs.

POLICY ISSUE 2: Establishing a Design and Implementation Process

States may choose to appoint a working group or create an independent panel charged with the design, implementation and maintenance of the accountability system. This panel makes recommendations related to issues, such as how performance will be assessed and progress reported; how accountability results will be used to foster change and improvement; and what structures will be put in place to build local capacity and support school-level accountability. The design process usually begins by determining a set of principles and goals for the accountability system.

POLICY ISSUE 3: Deciding Who Will Be Held Accountable and How Performance and Progress Will Be Measured

Policymakers can choose from a number of different types of student achievement measures, including norm-referenced tests, criterion-referenced tests, customized norm-referenced tests, performance assessments or portfolios. Each has distinct advantages and disadvantages, and costs of administering each can vary widely. In a standards-based accountability system, student achievement measures that provide accurate assessments of student progress on standards should be the highest priority. Other indicators also should be collected to provide an accurate picture of the system and identify areas in need of improvement.

POLICY ISSUE 4: Deciding How Performance and Progress Will Be Compared

At the heart of any accountability system is the determination of what constitutes satisfactory performance. Comparing the scores of students, schools or districts is a common way to make this determination. There are several approaches to the use of comparisons, including:

- Comparing students or schools to absolute performance on achieving standards using proficiency levels
- Comparing students' or schools' gain scores or progress toward performance targets
- Comparing schools or students to "expected" scores.

Most state accountability systems report student progress using proficiency levels on standards and on how well schools meet their performance targets.

POLICY ISSUE 5: Deciding at What Levels To Collect and Report Data

Accountability results can be collected and reported at the state, district, school or individual student level. The levels of reporting usually are determined by the purposes of the accountability system as well as cost considerations. Results most often are reported at the school level because most state accountability systems hold schools accountable for student results. School-level results, however, can be aggregated to create district- and state-level results. Some states report individual student scores, usually on measures that certify or promote students, and other states only report district results.

POLICY ISSUE 6: Weighing the Costs

A number of design elements affect the costs of accountability systems and the student assessments on which they rely. These accountability system features tend to increase costs: custom-developed tests; tasks or items that are "hand scored"; assessing a large number of items, grades or subject-matter areas; high stakes associated with test results; rewards for high-performing schools; and the extensiveness of the set of indicators collected.

POLICY ISSUE 7: Creating Rewards, Sanctions and Other Incentives

Rewards and sanctions offer the potential for focusing teachers' work, motivating school improvement efforts and improving teaching and learning. Six states have created accountability systems that use rewards and

sanctions to encourage schools and districts to increase student performance on standards. Rewards can be in the form of cash, recognition or increased flexibility. Sanctions usually are implemented on a continuum, starting with assistance and possibly ending with the closing of a school or a "state takeover" if adequate progress is not made.

POLICY ISSUE 8: Helping the Public Understand Results

How the public, policymakers and educators view — and whether they understand — the accountability system has much to do with its success. For parents, teachers and the public to see the accountability system as fair, they need to understand how the accountability system works, what led to specific rewards and sanctions being used, and why such actions are likely to be productive. Finally, educators and policymakers must work together to help parents and the public understand new reporting formats and how a standards-based accountability system differs from previous systems that may have used norm-referenced tests.

POLICY ISSUE 9: Supporting Teachers, Schools and Districts

State efforts to ensure accountability need to focus as much on creating the conditions for effective teaching as they do on holding schools accountable for results. For teachers to be effective, they need to have the knowledge and skills to teach effectively, helping all students meet high standards. States can play several different roles in providing support for educators, including creating standards for licensure/certification and professional development, organizing professional development centers, providing additional resources, developing reform networks or providing direct assistance to schools or districts.

POLICY ISSUE 10: Fine-Tuning the System

The success of an accountability system is determined not only by its design but also by the level of commitment policymakers demonstrate to its ongoing implementation and refinement. The task force or panel charged with implementation of the program should conduct an annual survey of schools and/or districts to get feedback on the status of implementation and the system's effectiveness; prepare an annual report to the legislative education committees and state board of education on the status of program implementation with recommendations for changes, if needed; and, conduct a longitudinal study of the impact the accountability system has on student performance.

INTRODUCTION

> *"Improving student performance requires a clear picture of what you want to accomplish, a comprehensive measurement system to gauge progress and a commitment to act on the results to make appropriate changes."*
>
> Colorado Governor Roy Romer

The challenge facing American education is to help all students learn at higher levels than ever before. Setting high academic standards — clearly defined statements of what students are expected to know and be able to do at various points in their schooling — is a crucial part of meeting this challenge. Standards provide policymakers, educators, parents and the public with the means to monitor, measure and continuously improve student achievement and school quality.

States began to promote the use of standards in the late 1980s in response to mounting public concern over declines in student achievement, as measured by national and international assessments.[1] This trend raised doubts about America's ability to maintain the quality of its workforce and compete in the global marketplace. The quality of America's schools came to be seen as more important and less acceptable than ever before. And it was student performance — not simply "seat time" — that mattered. The consensus was that schools should be judged more by "outcomes" (student achievement) than by "inputs" (resources, facilities, number of advanced degrees among teachers and so forth). Standards would allow the education system to be judged by, and to be held more accountable for, results.

With the use of content standards as the foundation for education reform, many state leaders are rethinking the structure, purpose and emphasis of their states' accountability systems. Making the shift from a conventional, input-focused accountability system to one driven by standards entails a number of complex design and implementation issues. Among the major questions policymakers must address are the following:

- Who should be held accountable? For what?
- At what levels of the system (state, district, school, classroom) will accountability data be collected, analyzed and reported?
- How will student and/or school progress be measured, compared, judged and reported?
- Will — and, if so, to what extent — accountability data be used as a basis for rewarding or sanctioning schools or certifying students?
- What are the costs and trade-offs of accountability design features?
- How will the accountability system be structured to promote and support greater flexibility and authority at the local level?
- How can understanding of and support for standards-based accountability be strengthened among educators, parents and the public at large?
- How will the appropriate state role in supporting school and district improvement be determined?
- How should a coordinated accountability system that provides information for policy decisions at all levels be designed?

Using This Guide

This guide is designed to heighten policymakers' understanding of these choices and challenges. It describes the various ways standards-based accountability systems can be designed and used, and how they can contribute to state and local education improvement. The underlying premises of accountability systems used in this guide are:

- Academic standards should provide the basis for evaluating student performance and progress.
- Schools should be held accountable for student achievement and student progress toward standards.

- Schools must be provided local authority and flexibility to use various instructional approaches to help students achieve standards.

- The most useful accountability system is one focused on motivating and supporting higher performance and continuous improvement at all levels of the education system — state, district, school and classroom.

Standards-based accountability systems . . . are a vital tool in state and local education improvement efforts.

The first section of this guide examines in a question-and-answer format the basic definitions, elements and limitations of standards-based accountability systems. The second section outlines 10 policy issues in the design and implementation of such systems, and provides a look at various approaches, design options and trade-offs, and support structures available to policymakers. A glossary (see Appendix B) defines terms used in the report.

Developing standards-based accountability systems is a difficult and complex process, but such systems are a vital tool in state and local education improvement efforts. When designed thoughtfully and implemented successfully, accountability systems can help more students achieve at higher levels and help improve the overall efficiency and effectiveness of public education.

UNDERSTANDING STANDARDS-BASED ACCOUNTABILITY

What Is Accountability?

Accountability refers to the systematic collection, analysis and use of information to hold schools, educators and others responsible for the performance of students and the education system.

Accountability is most effective when it does the following:

- Links authority and adequate resources to responsibility
- Defines clear lines of responsibility and mutual obligations
- Involves fair and adequate assessment against agreed-upon goals
- Involves appropriate consequences (both rewards and sanctions) for observed performance.

How Is Accountability Different from Assessment?

The concepts of assessment and accountability sometimes are confused, since student test results are usually the primary element of state indicator systems used to hold schools, or students, accountable. In this document, accountability systems are defined as: *the systematic collection of input, process and outcome data, as well as the use of these data, to make decisions about the effectiveness of schools, districts or states.* Therefore, accountability systems differ from assessment both in terms of the breadth of information collected and the manner in which the information is used in making decisions.

What Is Standards-Based Accountability?

The focus of a standards-based accountability system is to measure success against clearly defined standards. A standards-based accountability system focuses attention on student learning rather than on compliance with rules and regulations. It allows states to move away from regulating schools based on inputs (the number of books in the library and the proportion of certified staff, for example) and move toward a model of steering by results — using rewards, sanctions and assistance to move schools toward higher levels of performance.[2]

To assess student learning, state or local leaders first establish standards that define what students should know and be able to do at various points in their schooling. In some states, such as Delaware, standards were determined by a joint effort of state and local leaders and are expected to be used by every school district. In other states, such as Colorado, the state developed model content standards. Districts are expected either to adopt the state standards or develop their own standards that "meet or exceed" the state standards. In another model exemplified by Iowa, standards are determined by each school district.

Performance standards — which provide concrete examples and definitions of how well students must learn the material represented by content standards — then are used to create performance levels that define students' demonstrated proficiency at various points as they progress toward meeting a standard.

In a standards-based system, states focus not so much on *how*, but on *whether*, schools are helping students achieve the standards. The emphasis is on holding schools accountable for student performance rather than on the methods schools use to achieve results.

What Are the Basic Elements of a Standards-Based Accountability System?

Accountability systems typically collect a wide variety of information about districts or schools that can be characterized as *input, process* and *outcome* measures.

- *Input* measures include information such as the qualifications of teachers, the dollars spent on education, and the numbers and types of students being served. In a standards-based accountability system, inputs can be used as background information to evaluate gains in student achievement and better understand the environment in which schools are operating.

- *Process* measures describe the types of programs offered in schools. For example, they might include descriptions of how science or mathematics classes are taught, what professional growth opportunities are offered to teachers and what types of special-education programs are available for students with disabilities.

- *Outcome* measures are used to describe the achievement and accomplishments of students, including grades, test scores and the number of students graduating from high school, entering college or becoming employed.

Standards-based accountability systems focus on student performance (outcomes), with input and process measures used to help explain or interpret the outcomes. States are beginning to use and collect data on multiple measures — and even accept alternative measures — when the results are used to make important decisions related to students. Since a variety of types of information are available about schools, the challenge is for policymakers and educators to select from among the numerous available data elements those that are most useful in creating a clear, coherent picture of the outcomes of a school, district or state.

How Can Standards-Based Accountability Be Used To Promote Improvement at Various Levels of the Education System?

To be useful, an accountability system must meet the varying information needs of parents, educators, state and local policymakers, and the public.[3]

- Parents want to know what their child knows and can do, while a teacher is more concerned with identifying a student's strengths and what instructional challenges are needed.

- A school principal needs to know if student achievement is comparable to that in similar schools and how well students are achieving state and local standards.

- District leaders may be more concerned about whether the achievement needs are greater in mathematics than reading, so that additional resources can be allocated for mathematics instruction. Or they may be concerned that several schools are not meeting their performance targets.

- At the state level, concern is often focused on whether there is equity in school programs, whether differences in student performance are due to the lack of resources in some schools, and whether students have the knowledge and skills to help the state remain economically competitive.

To address these various information needs, accountability systems should be developed in a coordinated fashion across the multiple levels of the education system. Using assessments as an example, Figure 1 (page 5) shows how the need for information on specific students expands as assessments move from the state level to schools and classrooms.

The implications of these information needs for the design of state, district, school and classroom assessments include the following:

- *The state accountability system should focus on monitoring student progress on achieving state standards, and holding schools and districts accountable for that progress.* State assessments should be aligned with state content standards to provide targets for instruction. States may promote the administration and scoring of performance tasks at the local level that are reported to the state and used as part of the state accountability data.

- *The district accountability system should focus on collecting information related to district goals and standards while holding schools accountable for their performance targets.* Districts may choose to assess students in grades or academic areas not covered by the state assessment. More performance tasks can be administered and scored by teachers to guide their instruction and provide information on individual students. District-level data should give local policymakers guidance on which school pro-

grams are most effective, identify areas where resources need to be reallocated to support improvements, and provide comparisons among schools that are shared with parents and community members.

- *School-level accountability should focus on the collection of achievement data related to school goals* while providing diagnostic information for improving student learning and facilitating student placement.
- *At the classroom level, more direct and complex assessments, such as performance tasks, portfolios or mastery exhibitions should be used for student diagnosis and program improvement.*

Table 1 (pages 6 and 7) suggests some purposes and design features of a coordinated, multi-level accountability system.

Figure 1

RELATIONSHIP BETWEEN LEVEL OF ASSESSMENTS AND KNOWLEDGE OF SPECIFIC STUDENTS

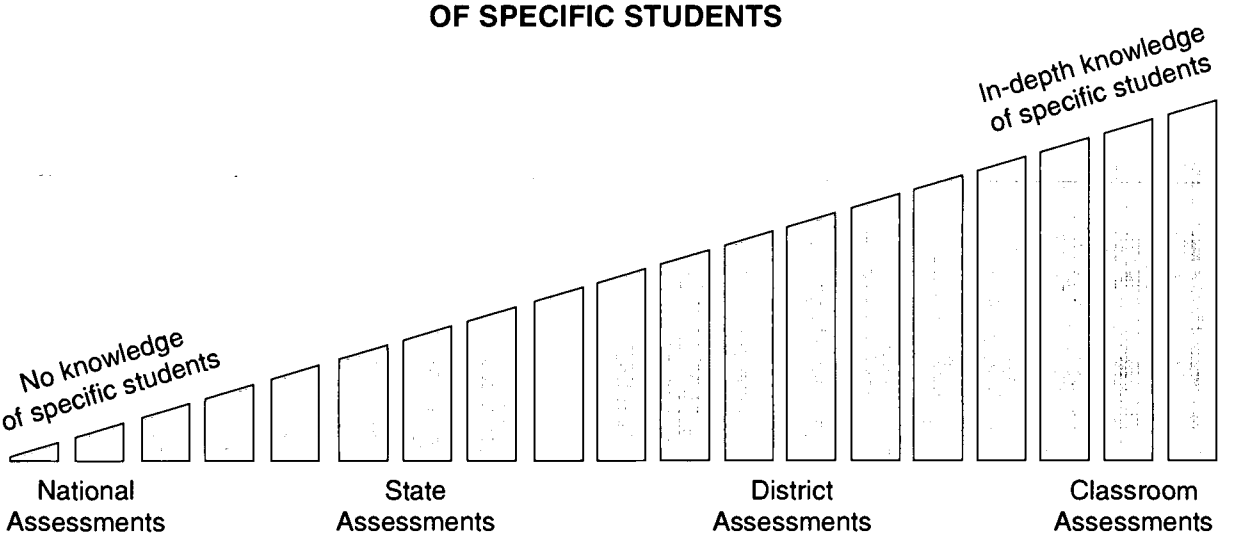

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Table 1
PURPOSES, DESIGN FEATURES AND USES OF ACCOUNTABILITY SYSTEMS AT THE STATE, DISTRICT, SCHOOL AND CLASSROOM LEVELS

Level	Purposes of Accountability System	Primary Design Features of an Accountability System Based on Purposes	Accomplishing the Purposes: Uses of Accountability Information
State	• Monitoring system progress • Identifying the relative performance of one system to another • Holding districts and schools accountable • Providing targets for instruction • Providing information for program improvement • Allocating resources • Certifying students	• Indicators could include information on expenditures, district or school demographics, program quality • Assessment is aligned to state standards and assesses only core academic standards • At least three grades are assessed — one in elementary school, one in middle school and one in high school • Assessment item formats are primarily selected-response with some short-answer, extended-response and performance tasks to assess more complex standards • If accountability system is "high stakes," then assessment meets high technical and legal criteria	• Providing rewards and sanctions for high- and low-performing districts or schools • Revising state policy to improve adequacy and equity • Reallocating resources to where they are most needed • Targeting assistance to low-performing schools • Providing information to the public on the status of schools and the education system • Endorsing diplomas or providing certificates of mastery • Focusing teachers' attention on standards
District	• Monitoring district progress • Improving student performance • Holding schools accountable • Providing targets for instruction • Allocating resources • Evaluating program effectiveness • Providing targets for instruction	• Indicators collect information on school demographics, school-level expenditures, school program, teacher quality and parent satisfaction • Assessment is aligned to district standards and may be administered at every grade or at grades not assessed by the state accountability system • District assessment results are reported to the community and may be included in the state assessment results • Assessment item formats include selected-response and can include more short-answer, extended response, performance tasks and portfolios to assess more complex skills and variations in school designs while meeting technical accuracy	• Providing rewards and sanctions for high- and low-performing schools (including determining if schools meet their performance contract agreements) • Reallocating resources to schools that need additional assistance • Identifying effective programs such as whole-school designs • Providing comparisons with other (similar) schools in the district • Reporting school-level data to the public to promote conversations related to school designs and school improvement; creating a consumer guide to district schools

Table 1 (Continued)
PURPOSES, DESIGN FEATURES AND USES OF ACCOUNTABILITY SYSTEMS AT THE STATE, DISTRICT, SCHOOL AND CLASSROOM LEVELS

Level	Purposes of Accountability System	Primary Design Features of an Accountability System Based on Purposes	Accomplishing the Purposes: Uses of Accountability Information
School	• Evaluating program effectiveness • Placing students • Certifying students • Improving student performance	• Indicators could include community characteristics, student demographics, attendance rates, graduation/completion rates, tracking post-school student performance, school-level inputs such as resources allocated to professional development, instructional materials, and degree of implementation of school program • Assessments are aligned with school goals and school program • Assessment item formats can include selected-response, short-answer, extended-response, performance tasks, portfolios and mastery exhibitions • Assessment results are available in time to make improvements	• Input for school's strategic planning process • Evaluating how well schools meet their goals • Evaluating effectiveness of school design for student population and community needs • Input for reallocating resources within the school • Basis for communitywide conversations on school improvement • Gauging parent satisfaction with the school program • Providing information for district's consumer guide to schools
Classroom	• Student diagnosis • Improving student performance	• Assessments are aligned with school program and are appropriate for the grade or student group • Assessment results are immediately available to use for student diagnosis to improve student performance	• Providing information on individual students for communication with parents • Providing information to place or select students • Providing information on effectiveness of classroom teaching and learning

Why Is Flexibility a Critical Component of Standards-Based Accountability Systems?

If educators and others in the system are to be held accountable for student performance, they must have the authority and responsibility to meet those goals. Because students have different backgrounds and learning styles, schools need to take different approaches to meet their learning needs. To provide this needed flexibility, many educators and policymakers are turning to "whole-school designs." Exemplified by the New American Schools (NAS) designs, whole-school designs provide different blueprints, approaches or philosophies to help schools and communities work together to help all students meet high standards.

A flexible system recognizes that, when it comes to educating students, one size does not fit all.

Flexibility, by promoting choices, gives schools more autonomy to be responsive to parents' wishes and student needs, gives teachers and administrators a stronger sense of purpose and responsibility, creates models of innovation and encourages schools to use their resources more efficiently. A flexible system recognizes that, when it comes to educating students, one size does not fit all.

A flexible system requires an operating environment that maximizes schools' ability to help all students reach high levels of achievement. First, all schools should have clearly defined standards that reflect high expectations for students. Multiple forms of assessment should be used to measure student progress toward the standards. Teachers should be provided assistance to help them strengthen instruction, align curriculum with higher standards, build in a variety of ongoing assessments to develop a rich picture of student learning and adjust their practice to meet individual students' needs. Finally, schools need the authority to decide how to deploy all available resources — money, staff and time — to help students reach high standards.[4] If schools are to be held responsible for student learning, they need the authority to make decisions to accomplish this.

When well-designed accountability systems are coupled with other policy changes, such as standards-based reform, site-based management and budgeting, public school choice, charter schools and reform networks,

schools are given more authority to produce results, yet are held accountable by parents and community members. Schools also are held accountable by local school boards, which may close schools that do not meet agreed-upon performance goals.

What Are Limitations of Accountability Systems?

The biggest limitations of accountability systems are the quality and quantity of the information reported, and the alignment of the data to the particular school and district. Are the data current? If the data are one or more years old, they may not be pertinent to the school or district at the current time. Are the data elements related to the school? For example, a 7th-grade score may reflect more about the elementary schools feeding the middle school than the middle school itself.

The data elements also may be limited. For example, student performance is more important in an accountability system than data about inputs (e.g., expenditures or staffing). It is not uncommon, however, for the latter to be more prevalent than the former types of information.

There are other limitations to accountability systems worth noting.

- First, much of the information reported as indicators typically is obtained from external sources. For example, college-entrance test scores, state assessment scores, and financial and staffing data may be reported by the state or by national organizations. Hence, they may not fit well with the local school system and may contain errors as the data are collected, edited and reported by others.

  Other information that may be available but is not reported might change some of the observations reported or decisions made. For example, information that classroom teachers collect, such as portfolio data or their own tests, might add another dimension to the reporting of student accountability information. Since these data are rarely collected and reported in state accountability systems, however, these potentially valuable insights are not reported, and the picture of student performance may be somewhat misleading. Are there other sources of information that can or should be used?

- Second, some important outcomes of schooling are not easily measured by the indicators selected for reporting. The most valued outcomes of schooling (e.g., gainful employment, successful parenting, satisfying life) are not easily measured while students are in school or even later in life. Hence, things such as grades and coursetaking are substituted for these more important longer-term outcomes.

- Third, achievement data and other indicators are most often cross-sectional in nature. This means the data presented at different grades for a particular year come from different groups of students. Are changes observed due to differences in students or differences in the education system?

- Fourth, none of the explanatory factors that may be associated or "correlated" with student achievement necessarily account for student performance. For example, socioeconomic status and achievement are often correlated, yet poverty does not cause low achievement. Since the effective schools research abounds with high-poverty schools with high achievement, there are clearly other factors, such as teacher expectations or parental involvement in education, that are at work. The fact that two variables are statistically correlated does not mean that one causes the other, and such causal inferences should be avoided.

  Users of accountability system information should be cautious before putting forth explanations for the causes for student performance. Is one variable that is correlated with another actually caused by that variable?

- Finally, most indicators provided in accountability reports contain only one to three years of data. Where possible, more data should be provided; trend analysis should not be carried out with fewer than three years of data. If more data were available, would the same trends in performance be observed?

POLICY ISSUES

There is no single "right" way to design and develop standards-based accountability systems.

There is no single "right" way to design and develop standards-based accountability systems. A state's accountability system will, and must, reflect the social and political environment within the state, as well as the state's goals and objectives.[5] The experience of several states that have developed or are in the process of designing standards-based accountability systems, however, suggests a number of critical steps in the successful design and implementation of such systems.

POLICY ISSUE 1: Defining Purposes and Goals

Accountability systems can serve several different purposes. An accountability system that attempts to perform too many functions, however, inevitably will do none of them well. Therefore, it is important to identify desired purposes and to design an accountability system to serve those purposes effectively. One way to serve multiple purposes is to create a coordinated accountability system where different purposes are identified and met at different levels of the education system.

In some cases, an accountability system designed for one purpose cannot be used effectively for another purpose. For example, using a traditional "off-the-shelf" norm-referenced test in an accountability system, although providing student percentile rankings, may not be effective in assessing student progress toward state or local content standards. Likewise, limiting data collection in an accountability system to district-level samples may not provide enough information for rewards and sanctions to be applied to individual schools. The worst-case scenario is for policymakers to establish the structure of a system without first determining the purposes. To do so may mean that multiple, sometimes conflicting, purposes (and messages to educators) may emerge, and that users of the accountability system may be unclear about how the information resulting from the system is to be used.

In a standards-based accountability system, the most obvious purpose is *to monitor, evaluate and publicly report the progress of students, schools and districts toward achievement of content standards and other established goals.*

Other purposes can include:

- *To provide information for policy decisions.* Accountability data can be used to evaluate or formulate policy, especially policies focused on equity and resource allocation.

- To *provide information for program improvement.* An accountability system can include the collection of data on multiple, related indicators and report the results for classrooms and schools. The results can help identify areas of strength and weakness, either on an absolute or relative basis, so schools will know which programs or services need improvement.

- *To evaluate the performance of the education system relative to other systems.* Sometimes, accountability systems are designed to permit external comparisons of state, district or school performance with the performance of systems in other states or countries.

- *To hold schools and/or districts accountable.* Standards-based accountability systems collect information on students' proficiency on standards, allowing school and district scores and reports to be analyzed and compared.

- *To allocate resources.* Standards-based accountability systems can be used to help allocate or target resources, such as providing rewards for high-performing schools and assistance for low-performing schools.

- To *certify or promote students.* Some states use accountability systems to retain students or promote them to the next level (such as from elementary school to middle school) or to certify students for graduation. When accountability systems are used for high-stakes purposes, the measures relied on must be legally defensible and of high technical quality.

- *To improve individual student performance.* The assessment portion of the accountability system can be used to provide feedback to individual students on their strengths and weaknesses and provide information on how learning might be improved.

An accountability system that attempts to perform too many functions, however, inevitably will do none of them well.

- *To select or place students.* The assessment portion of the accountability system can be used to select or place students in various programs based on their needs and level of achievement.

- *To plan staff development.* School accountability results can be used to identify curricular or instructional weaknesses for targeted professional development.

The challenge is to design a coordinated accountability system that emphasizes different purposes at different levels — state, district, school and classroom — based on the feasibility of data collection, data needs and information uses.

The challenge is to design a coordinated accountability system that emphasizes different purposes at different levels.

POLICY ISSUE 2: Establishing a Design and Implementation Process

Once the central focus and purpose of the accountability system has been defined, a number of crucial issues — some involving policy choices, others involving technical issues and questions — must be addressed. These issues include the following:

- What will the unit of accountability be (student, school, district — or all three)?

- How will performance and progress be measured, compared and reported?

- How will accountability data be used to foster change and improvement?

- What role will local school districts, the state department of education and other agencies play in the accountability process?

Addressing these and other important questions in a coordinated, coherent fashion can require the creation of an independent panel charged with the design, implementation and maintenance of the accountability system. The establishment of such a panel, whose composition and responsibilities may be set in statute or by state board of education rule, sends a message of objectivity, fairness and importance.

Resources for the design and development process should be identified at the outset. External expertise may be required, although a great deal of support can be provided by the state department of education, universities and practitioners within the state, providing additional opportunities for buy-in on the part of various groups and individuals. Task forces and ad hoc committees in such areas as assessment, professional development, collective bargaining, technology, postsecondary articulation and parent involvement can be used to extend the accountability panel's resources.

One of the first tasks a panel has is to create principles of an effective accountability system. This establishes a frame of reference for policy discussions and provides direction in establishing a knowledge base among the panel members. The next task is to translate these principles into purposes, goals and the design of an accountability system.

In addition, a public information process is needed to include the media, as well as the legislative and executive branches, schools, districts and the general public. Regular reports on the progress of design and implementation can help minimize misinformation. Hearings and other opportunities for public comment during the design phase also can help add to the credibility and coherence of the process.

POLICY ISSUE 3: Deciding Who Will Be Held Accountable and How Performance and Progress Will Be Measured

Most accountability systems focus on holding students and schools accountable. But, states are beginning to expand accountability systems to articulate expectations for more participants in the education process, assess their performance and hold them accountable.

For example, Delaware's new accountability system (see sidebar) plans to hold teachers and administrators accountable by requiring them to meet professional teaching and administrator standards, respectively. These standards include program approval, initial licensure, induction process, evaluation and recertification.

DELAWARE'S PRINCIPLES OF AN EFFECTIVE ACCOUNTABILITY SYSTEM

- *Accountability should be integrated with professional development so that all students have the opportunity to succeed.*
- *Accountability should be tied to progress toward the state's academic standards, with students and schools expected to perform at agreed-upon high levels.*
- *Accountability should be linked to authority.*
- *To the extent possible and practical, all system participants — students, parents, educators, schools, business and the community — should be accountable in some way.*
- *Performance should be linked to consequences for individuals as well as schools, districts and the state. Schools whose students meet or exceed the standards should be rewarded. Those that need help should receive it. Those that persistently or dramatically fail should be penalized.*
- *Progress toward student and professional standards should be measured with technically adequate and fair assessment tools.*
- *The accountability system should be easily understood by, perceived as fair by and make good sense to the public and educators.*
- *An accountability system must include help for students having difficulty meeting the requirements.*
- *Accountability must be supported by an information system and analytic capacity that ensure improved policy, programs and practices.*

Source: The Missing Link: Connecting Professional Development with Accountability To Improve Student Learning in Delaware, 1997.

Other states, such as Tennessee, hold teachers accountable by measuring the gain in student achievement during the academic year. Delaware also plans to hold department of education staff accountable based on employee performance, program evaluations, customer satisfaction surveys and annual overall gains of the education system. See Table 2 on page 16 for state accountability examples of who is being held accountable and for what.

Student Achievement Measures

Nearly every state uses one or more assessments to collect information about student achievement.[6] Among the types of tests used in state accountability systems are the following:

- *Norm-referenced tests.* These tests are commercially available instruments that provide comparisons between individual student or school scores and those of a nationally representative norm group. Norm-referenced tests are inexpensive to purchase and score, provide national comparisons and are easier for parents to understand. The disadvantages are that they rarely provide an exact match to a state or district's content standards, and historically have not included performance tasks to drive more complex learning and instruction.

- *Criterion-referenced tests.* These are typically custom-developed assessments, based on a state's content standards (although credible "off-the-shelf" tests aligned to standards developed at the national level are beginning to emerge). Selected-response and constructed-response items are used, and scores are reported relative to a state's performance standards. The advantage is that custom-developed tests are aligned closely with state and district standards; the disadvantage is that there are more costs associated with custom development than an off-the-shelf test.

- *Customized norm-referenced tests.* Occasionally, assessment programs use a version of a norm-referenced test to maintain the national comparison advantages of the off-the-shelf test, but customize it to fit the particular state or local content standards. This approach shares the disadvantage of higher test-development costs with criterion-referenced tests, but allows the instruments to be aligned more closely with state and local standards than conventional norm-referenced tests. Another disadvantage is the frequent lack of "direct" or performance measures.

- *Performance assessments.* Performance assessments, in which students actually produce work (an essay, a laboratory experiment, a painting), have the advantage of being closely linked to curriculum and content standards. By connecting what is taught and what is tested, these assessments also may influence what teachers teach. They are, however, more expensive to develop, administer and score.

- *Portfolios.* Portfolio assessment, in which examples of student work are compiled and evaluated over time, is another way to collect information about students. Some states, including Vermont and Kentucky, are using student portfolios as part of their state assessment system. Portfolios have the advantage of providing longitudinal data showing student growth over time. Their primary disadvantages are the time and resources needed to collect the information and to evaluate it fairly and reliably. If portfolios are used in high-stakes situations, care must be taken to ensure that scorers have been well-trained.

Although states may use any of the tests described above, it should be noted that standards-based assessments (all of the types of tests mentioned above except norm-referenced tests) have several advantages over their traditional counterparts.[7] These advantages include the following:

- *Standards-based assessments are closely linked to content and curriculum standards.* By connecting what is taught and what is tested, assessments influence what teachers teach. Standards-based assessments compare student accomplishment to preestablished goals, rather than to the performance of other students.

- *They can incorporate new forms of assessment.* Such assessments can require students to undertake "authentic" tasks, such as writing an essay or conducting a hands-on science experiment. Such assessments capture a broader range of complex thinking and problem-solving skills.

- *They model tasks for teachers' professional development.* Performance tasks serve as examples teachers can use in their classrooms. Teachers' scoring of performance assessments also provides an opportunity to discuss standards and performance expectations for students.

It is possible for states to include multiple types of assessments in an accountability system. Maryland, for example, uses criterion-referenced tests and performance tasks in its primary state assessment, but offers districts the option of using norm-referenced tests on a limited basis to provide comparisons to national norms.

In addition to student assessments, accountability systems typically include a broader set of indicators. These indicators are usually reported in school report cards or school profiles. Indicators used by the states are categorized in Appendix A.[8]

Some indicators, such as student and family characteristics, may explain differences in performance between schools or districts. Other indicators, such as curriculum or advanced courses offered, are considered to be under the direct control of teachers, administrators or local school boards and may indicate the aspirational level of students or the school. Both types of indicators should be included in an accountability system.

The challenge for policymakers is to identify and measure the outputs that are most valued (rather than just those most available), and to collect information on the inputs and processes needed to provide an accurate picture of the system and identify areas in need of improvement.

POLICY ISSUE 4: Deciding How Performance and Progress Will Be Compared

At the heart of any accountability system is the determination of what constitutes satisfactory performance. Comparing the scores of students, schools or districts is a common way to make this determination. There are several approaches to the use of comparisons:

- *Comparing students or schools to absolute performance.* States frequently report student- or school-level data in terms of the percentage of students who meet or exceed a proficiency level on each standard. For example, the scores of 8th graders on a mathematics computational test might be reported as 25% "partially proficient," 65% "proficient" and 10% "advanced." Reporting absolute scores sends a message that the state's goal is to have all students, regardless of background characteristics, perform at high levels.

- *Comparing students' or schools' gain scores.* Gain scores can be determined in several ways. Using a longitudinal data-collection approach, differences between scores of the same individual students are compared as they move through different grade levels. For example, a student's score on a mathematics test taken in 7th grade is compared with the same student's score on an equivalent test taken in 8th grade. School scores are the average gain made by matched students in a school.

Longitudinal data collection is more expensive because the same students must be identified and tested, and results matched and compared. The advantage, however, is that longitudinal data indicate the "value added" of the schooling experience. Tennessee's assessment program uses this approach.

Gain scores also can be computed using cross-sectional data-collection approaches. For example, the percent of proficient 8th-grade students in a given school one year

Table 2
WHO SHOULD BE HELD ACCOUNTABLE? FOR WHAT? USING WHAT MEASURES? WITH WHAT SUPPORT? SOME POLICY OPTIONS

Who Should Be Held Accountable?	For What?	Using What Measures?	With What Consequences?	Needing What Supports?
Legislature	• Adequate and equitable school funding • Policies aligned to standards • Legislation for accountability system	• Report card of voting records • Policy review	• Constitutionality of funding formula • Re-election	• Adequate state resources for education • Policy options to support standards
State Board and State Department of Education	• Creation of an accountability system and data collection • Standards • Public reporting of district and/or school-level accountability results • Statewide student achievement gains • Identification of low performing schools • Effective technical assistance to schools/districts	• Student achievement measures • Other indicators • Customer satisfaction surveys • Program evaluations • Employee performance	• Election/appointment process • Board reconstitution • Legislative action • Performance-based compensation of employees • Probation, reassignment or dismissal of staff	• Adequate funding of accountability program • Student achievement measures that are of high technical quality and aligned to standards • Adequate resources and staff expertise for technical assistance to schools and districts • Mechanism to use accountability results for system improvement • An engaged public
Teacher Education	• Programs meet teacher and administrator program approval guidelines • Programs meet NCATE/NASDTEC standards • Teacher education applicants meet K-12 proficiency standards • Teacher education graduates meet professional teaching standards	• Student competency measures • NCATE/NASDTEC accreditation • Measures of professional teaching standards	• Loss of teacher education program accreditation or approval	• Redesign of teacher education courses to support standards-based system • Course instruction that models diverse instructional strategies
Local School Boards	• Meeting professional standards for school boards • Creating local policies that support a standards-based system • Creating districtwide improvement plan • Meeting district performance targets • Conducting public hearings on accountability results	• Measures of board professional standards • Local policy review • Measures of meeting performance targets • District quality reviews	• Election/appointment process • Board reconstitution	• Adequate state policy framework • Adequate state and local resources • Central office staff able to implement programs and policies • Qualified teachers

Table 2 (Continued)
WHO SHOULD BE HELD ACCOUNTABLE? FOR WHAT? USING WHAT MEASURES? WITH WHAT SUPPORT? SOME POLICY OPTIONS

Who Should Be Held Accountable?	For What?	Using What Measures?	With What Consequences?	Needing What Supports?
Districts/ Schools	• Student proficiency on academic standards • Meeting performance targets • Adequate inputs • Adequate processes • Meeting rules and regulations of state board • District and school improvement plans	• Student achievement measures • Measures of indicators such as dropout, attendance and graduation rates • Accreditation measures • Program review	• Public reporting of results • Rewards • Deregulation • Sanctions • Required assistance	• Adequate resources and authority • Local policy framework that supports standards implementation • Curricula aligned to standards • Access to technical assistance and school designs • School/community process to set goals, review, act on results
Principals/ Administrators	• Student proficiency on academic standards • Meeting professional administrator standards • Administrator evaluation	• Student achievement measures • Measures of other indicators such as school and district goals • Administrator certification measures • Professional review	• Initial certification and evaluation • Licensure or certification • Recertification • Salary bonuses • Remediation and support • Probation, reassignment or dismissal	• Professional development opportunities • Adequate resources and authority • Access to technical assistance and school designs
Teachers	• Student proficiency on academic standards • Professional teaching standards • Teacher attendance	• Student achievement measures • Measures of other indicators • Teacher certification measures such as Praxis or INTASC measures	• Teacher evaluation tied to student achievement • Recertification • Differentiated staffing roles • Pay for knowledge/skills • Salary bonuses • Remediation and support • Probation, reassignment or dismissal	• Professional development opportunities • Adequate resources • Aligned curriculum • Access to technical assistance and school designs
Students	• Proficiency on academic standards • Meeting course or graduation requirements	• State and local assessments • Exit/end-of-course exams • Transcripts • GPA, other indicators	• Promotion to next grade or level • Test scores placed on permanent transcripts • High school graduation • Diploma endorsement • Special recognition • Participation in extracurricular activities • Required remediation	• Opportunity to learn • Qualified teachers • High quality curricula • Remediation programs
Parents	• Parent participation and volunteerism • Communication between home and school • Parenting skills and student support	• Indicator measuring parent involvement in schools	• Parent recognition • School choice	• Parent engagement and involvement in schools
Community/ Business Leaders	• Hiring based on student transcript • Allow parents time off to attend school conferences • Support education-related events • Partner with schools	• Survey to identify businesses that use high school transcripts in hiring process • Indicator measuring business involvement in schools	• Legislation to require parents release time for school events • Incentives for hiring practices	• Business engagement and interest in education

Source: Many ideas in this chart are drawn from *Accountability: Blueprint for Delaware,* October 1997.

DEFINITIONS OF TERMS FOR UNDERSTANDING COMPARISONS

Absolute performance. *The percent of students reported by the proficiency level they meet or exceed — regardless of their starting point, past performance or demographics.*

Cross-sectional data. *Comparison scores of students at a given grade level with different students at that same grade the prior year.*

Expected score. *The anticipated score for a student, school or district based on the correlation of background factors with student achievement to derive a score. This derived score then can be compared with actual student, school or district performance.*

Longitudinal data. *Data collected from the same students (or a cohort) over time. Longitudinal data can take into account statistical determinants of achievement such as socioeconomic status and family background and are suited to determining the "value added" over time.*

can be compared with the percent of proficient 8th-grade students from the same school the prior year. Although cross-sectional comparisons are less expensive to assess, student mobility and differences in the student cohorts from year to year can make the results misleading.[9]

"Gain scores" reward schools that make progress, even low-performing schools, by recognizing and encouraging continued growth and improvement. Using gain scores instead of absolute performance gives every school a chance to earn a reward.

Another way to use gain scores is to create an "expected score" based on prior performance, taking into account the impact of socioeconomic or other background factors. For example, anticipated scores of this year's 4th graders, calculated from last year's 3rd-grade test, are compared with actual scores. This method is a statistical compromise of using absolute and relative standards, in that each group of students serves as its own comparison group.

- *Comparing students using percentile rankings on standardized tests.* Comparing students using percentile ranks allows districts to use different norm-referenced tests for accountability purposes. In Arkansas, for example, schools are allowed to choose a state-approved norm-referenced test. If 40% of students are at or below the 25th percentile on the approved test, the school is placed in the first phase of sanctions. One problem of schools or districts using different tests is that it is nearly impossible to aggregate data upward to provide a state-level snapshot of student progress toward standards.

Pros and Cons of Comparison Methods

Using absolute comparisons gives preference to historically advantaged, high-achieving schools. Other schools that serve students in low socioeconomic communities may make large gains in student achievement, yet remain below performance standards. But, some educators and policymakers believe schools should not be rewarded or penalized for factors they cannot control. They believe it is fairer either to compare improvement against schools or school districts with similar

socioeconomic and demographic characteristics, or to adjust student or school scores to account for the types of students served.

Controlling for student background or prior achievement, however, can institutionalize low expectations for poor, minority and/or low-achieving students. In effect, this practice holds schools with large proportions of such students to a lower standard of performance.[10] A compromise solution is to use both approaches, rewarding schools for a high level of absolute performance, as well as rewarding schools making significant progress. This approach would focus attention and effort on competition among all schools, while still permitting schools to strive for rewards relative to others in a similar situation.[11]

A compromise solution is to use both approaches, rewarding schools for a high level of absolute performance, as well as rewarding schools making significant progress.

Setting Performance Standards, Cut Scores and Targets for Improvement

Performance standards usually are set by panels appointed at the state or district level (depending on where the standards are set). These panels review student work reflecting a range of abilities and determine the level at which that work should be classified.[12] Panels typically make judgments individually, discuss their rationales and then, aided by statistical programs that convert their judgments into proposed scores, consider the implications in light of actual performance data. Then a series of "cut scores" is established, allowing student performance on the assessments to be converted into proficiency levels. These levels, such as "proficient," "advanced" and "partially proficient," are used for reporting purposes to identify the percentage of students in each category.

States or districts may want to set targets for improved performance. Kentucky has one approach to setting performance targets for schools. A score is assigned to each level of proficiency on standards. The state's four categories of performance — "distinguished," "proficient," "apprentice" and "novice" — carry scores of 140, 100, 40 and 0, respectively. Kentucky's goal is to help each school average a score of 100 — possible if all students performed at the proficient level or, for example, if 50% were proficient, 30% were

distinguished and 20% were apprentice (.5x100 + .3x140 + .2x40 = 100).

Under this formula, schools can achieve progress by increasing the percentage of "distinguished" students or by reducing the share of "novices." So, the performance target for each school in Kentucky is determined by the gap between the school's score and the state goal of 100. Kentucky wants all schools to reach the goal within 20 years, so a school is expected to reduce the gap between where it is and where it is expected to be by 1/20th each year. Most states and districts set annual targets for gains between 2% and 5%, but the number of years allowed to close the gap varies considerably among states.

POLICY ISSUE 5: Deciding at What Levels To Collect and Report Data

Accountability results can be collected and reported to allow comparisons at the international, national, state, district, school or individual student level. The levels of reporting usually are determined by the purposes of the accountability system, as well as by cost considerations.

- *International or National.* Recent state-by-state comparisons conducted by the National Assessment of Educational Progress (NAEP) have allowed states to compare student achievement in mathematics and reading with other states based on NAEP-developed content objectives. Similarly, results from the Third International Mathematics and Science Study (TIMSS) compare U.S. student achievement with results from other countries. States wanting to make their own comparisons to other countries in mathematics and science could have the TIMSS test administered with a state sample. Another option is for states with similar standards to establish consortia to develop some common accountability measures allowing cross-state comparisons.

- *State.* In the 1980s, a number of states reported student achievement only at the state level. The intent of this kind of system was to provide low-stakes monitoring information on how well the education system as a whole was doing. Patterned after NAEP, it was an inexpensive way to provide monitoring information because of the relatively small number of students that had to be tested. Many of these states, however, eventually added data collection at the district and school levels so they could provide reports for parents, teachers, administrators and students.

- *District.* Collecting and reporting accountability data at the district level can identify district-level progress toward standards and other established district or state goals. States such as Arkansas and South Carolina use the district as the unit of accountability and provide rewards and sanctions based on district-level results. One advantage of using the district as the unit of accountability is that it can reduce costs by keeping data collection relatively limited (more students have to be assessed on more variables for school-level reporting). Another advantage is that this approach provides districts flexibility to choose assessments aligned to their standards and curriculum. The disadvantage of using districts as the reporting unit is that the performance of schools within a district differs, and few districts have put into place accountability structures or can describe school-improvement targets for a given year.

- *School.* Most states use the school as the reporting unit for their accountability systems. In any district, some schools will be performing better than others. Reporting only district-level results masks these differences. School-level reporting holds each school accountable for results, encouraging school staffs and their communities to work together to improve student learning. It also allows the district or state to target remedial assistance, as well as rewards and sanctions.

- *Classroom.* Most district reporting mechanisms include the classroom as one level of reporting. Classroom data can provide information on the relative effectiveness of a teacher over time and of the curriculum or program used.

- *Student.* One reason for testing all students at one or more grade levels is to certify students for promotion

or graduation. In most states, this data-collection strategy is used only at certain grades, although frequently all students in that grade are tested. About half of the states use individual student data to promote students from grade to grade or level to level, to award a high school diploma or to endorse a high school diploma. The remaining states assess students primarily as a means of guiding individual student remediation or reviewing and improving the school's instructional program.

A coordinated accountability system can ensure that information for all levels of the system is available for use by policymakers, educators and community members.

POLICY ISSUE 6: Weighing the Costs

A number of design elements affect the costs of accountability systems and the student assessments on which they rely. Attention should be given to the potential costs of various design elements, including the following:

- *Custom-developed tests vs. "off-the-shelf" or commercially available tests.* A custom-made test that matches a state's standards is more expensive to develop than an 'off-the-shelf" norm-referenced test.

- *Selected-response-only vs. "mixed" assessments.* Assessments that require a mix of short-answer or extended written responses with selected-response (e.g., multiple choice) exercises can cost two or three times as much as machine-scored tests to score. They also may take more time to administer than selected-response-only assessments.

- *Number of items assessed.* The more items tested, the greater the administration and scoring costs. Some states deal with this issue by "matrix sampling" test items. In a matrix sample, each student takes a portion of the item set, and statistical techniques are used to create school or district scores.

A coordinated accountability system can ensure that information for all levels of the system is available for use by policymakers, educators and community members.

- *Number of grades assessed.* The greater the number of grade levels tested, the higher the cost of administration, scoring and reporting. One way to reduce costs is to test fewer grade levels, particularly if more than one type of test is used. For example, a standards-referenced assessment could be used at grades 4, 7 and 10 in mathematics and reading, while a comparable measure in science and social studies could be administered at grades 5, 8 and 11. This approach is less costly than assessing students in all grades from 4-11.

- *High stakes associated with test results.* High-stakes tests must be of higher technical quality in order to be legally defensible. In addition, for security reasons, new forms of the assessment will need to be created annually, since the stakes are too high to reuse past tests or test items.

- *Extensiveness of the set of indicators to be collected.* While there may be a desire to be as complete as possible in selecting the indicators to be reported along with student achievement data, the larger the set to be collected and reported, the greater the cost. Some elements may already be collected by the state or by districts, so the costs of including these data elements may be minimal. Other desirable data elements may not be currently available and will require additional resources to collect, analyze and report. Some data elements (for example, the employment of students after high school) may be deemed virtually impossible to collect on a statewide basis.

- *Size of rewards provided to schools or districts.* Indiana most recently awarded over $3 million to schools; South Carolina awards about $5 million. In 1995, Kentucky had $26 million available for teacher bonuses. The resources associated with providing rewards should be considered part of the costs of an accountability system.

The costs of collecting and reporting on each desired data element will need to be weighed, including the staff time and effort needed to obtain information from schools and districts. Either the direct or indirect costs associated with data collection may limit the extent to which various data elements are included in the accountability system. In general, more expensive approaches will produce sounder accountability systems. But, with finite resources for education, the trade-offs between spending resources on an accountability system versus putting the resources into classroom instruction must be weighed.

POLICY ISSUE 7: Creating Rewards, Sanctions and Other Incentives

Rewards and sanctions offer the potential for motivating school improvement efforts and improving teaching and learning (see the ECS publication, *A Policymaker's Guide to Incentives for Students, Teachers and Schools*, for more information about incentives). Progress toward achieving standards, along with other indicators, can be the basis for incentives for high performance and disincentives for poor performance. And, including other incentives in the system, they also can serve to improve motivation and performance.[13]

Six states — Georgia, Indiana, Kentucky, North Carolina, South Carolina and Texas — have created rewards and sanctions to encourage schools and districts to increase student performance on standards.[14] How progress is measured and reported has significant implications for how rewards are allocated and sanctions imposed, and how the public views the fairness of the accountability system. Among the questions policymakers need to address are the following:

- Will there be absolute standards that must be met regardless of the school's baseline level of performance and factors specific to that school?

- How should low-scoring but improving schools be rewarded?

- Should consistently high-scoring schools be rewarded for their high level of performance in the same way as low-scoring but improving schools?

- What assistance will the state provide to help low-performing schools improve?

- Who will impose sanctions when schools fail to improve? What is the scope of the sanctions? Will there be a due-process procedure? What will be the cost of imposing the sanctions?

- What will the rewards be and who will receive them? Will the rewards encourage teamwork or will they cause dissension and low morale?

If a state chooses to attach rewards or sanctions to accountability results, the accountability system is considered "high stakes" (see the ECS publication, *Education Accountability Systems in 50 States* for more information about state accountability systems, including the use of incentives and sanctions). If consequences are to be attached to the results, the accountability system needs to be technically and legally defensible: it must measure what it says it measures and must do so accurately and with multiple measures. This step is especially important when accountability results are used to make decisions about individual students, such as promotion, graduation or an endorsed diploma.

How progress is measured and reported has significant implications for how rewards are allocated and sanctions imposed, and how the public views the fairness of the accountability system.

Rewards

Rewards can come in the form of cash, recognition or increased flexibility. They may include cash awards for school improvement or to be distributed as staff bonuses, freedom from regulations, or statewide recognition and status. States that provide cash rewards may limit how schools spend the money. Some states allow the reward money to be used for staff bonuses, although Kentucky, for one, is reconsidering this approach.[15] Other states ban the use of reward money for staff bonuses and athletics. Still others require reward bonuses to be used only for school improvement efforts.

Nonmonetary awards can be given in the form of relief from regulations and thus increased flexibility. In Texas, a school rated "exemplary" is exempt from requirements and prohibitions specified in the state school code. The school is still held accountable, however, for a lengthy list of code sections, including curriculum and graduation requirements, elementary

class-size limits and programs for students who are disabled, bilingual or at risk.[16]

South Carolina grants broad exemptions to qualifying schools. A school must have received an incentive award twice over a three-year period in addition to other requirements. Flexibility status earns release from requirements of the defined minimum program. Qualifying schools also are freed from regulations governing class scheduling, class structure and staffing.[17] Exempt schools must continue to participate in the state assessment program and score well to retain deregulated status.

In some states, such as Indiana, monetary awards are supplemented with noncash awards or public recognition. The use of such awards (called "Four Star" schools in Indiana) originated with the desire to recognize high-performing schools that did not earn awards based on growth scores. Four Star schools are those that perform in the top quartile of schools in each of four indicators and satisfy all expected performance levels defined in Indiana's school accreditation program. The Four Star designation recognizes high-capacity districts, while at the same time allowing a larger amount of money to go to poorer school districts that improve.

Sanctions

Sanctions usually are implemented on a continuum, starting with assistance and possibly ending with closing a school or the state taking it over if adequate progress is not being made. Twenty states have enacted "academic bankruptcy" laws that allow state intervention in severely troubled districts.[18] Early responses to academic bankruptcy can include such things as public hearings or the assignment of onsite technical assistance, as is available under Kentucky's Distinguished Educator Program. If progress is not made, the possibility exists of a state takeover of the district and other forms of intervention. Other options include changing management of the district (school board or school superintendent) or school (principal and teachers), allowing parents to choose another school or providing additional resources. Most states have accountability mechanisms focused on identifying low-performing schools. Some states, however, also impose sanctions on districts with a large number of low-performing schools.

States are exercising considerable caution as they implement sanction programs. The problem with high-stakes accountability systems is they must be backed up with technically accurate and legally defensible assessments and procedures. To be conservative, many states, such as Maryland, are identifying only a handful of schools generally agreed to be at the lowest level of student performance.

Florida's accountability program was developed over several years before 1996 legislative action gave the state superintendent authority to intervene in the operation of districts that failed to make adequate progress.[19] Delaware may allow the use of an alternative assessment and other indicators instead of the state assessment results to report student results using proficiency levels.

Do Rewards and Sanctions Work?

With the exception of South Carolina, state reward and sanction programs have been in effect for only a few years. Early evidence suggests, however, that sanctions do motivate schools to do better. But the results are mixed regarding the impact of rewards.

Richard A. King and Judith K. Mathers,[20] in an analysis of four states with high-stakes accountability systems, made the following conclusions regarding the effect of rewards on teachers' motivation:

- Extrinsic rewards may contribute to reform implementation but may not motivate change.
- Extrinsic factors pale in comparison with the intrinsic aspects of teachers' work.
- State and local attention to improvement efforts has as great an incentive effect as the money associated with such status.

Regarding the effect of rewards on schools and classrooms, these same researchers concluded the following:

- Changes in classroom practice are present in both reward and nonreward classrooms in the four states.
- Leadership and other factors may be more critical than monetary rewards in change efforts.
- Rewards and sanctions may stimulate conversations with professionals and parents on school improvement.
- More attention is given to racial/ethnic minority group students in states in which rewards and sanctions take such students' performance into account.

The impact of rewards on improving student test scores is more difficult to ascertain. Few studies are available that include findings on the effects of rewards on student achievement.

Some state leaders believe the mere threat of sanctions is a more powerful motivator than the distribution of financial rewards. Local school leaders want to avoid the negative publicity associated with low performance or the stigma attached to being designated a "school in decline." But sanctions do seem to work. Kentucky reports that most of the schools targeted as being "in decline" in 1994 appear to be making enough progress to ensure that more extreme sanctions are not imposed.[21] In more extreme cases, however, such as state takeovers or the reconstitution of districts, the long-term effects of sanctions are less clear.

Cautions for High-Stakes Testing

High-stakes accountability systems can produce some unintended, negative consequences. These can include the narrowing of instruction, de-emphasis on untested subject areas, test-score inflation through inappropriate or questionable test preparation practices, and staff morale problems.[22]

Research shows that in a high-stakes system[23] what gets tested gets taught, and that the converse is also true — what is not tested is not taught. High-stakes tests that assess student performance on only one or two content areas — reading and mathematics, for example — will have an adverse affect on how much science or social studies is taught. Similarly, accountability systems that consistently assess only some standards within a content area likely will result in limited instruction on the standards not assessed.

Inflation of test scores was first noted in a 1987 study that showed that many states had an implausible proportion of districts reporting themselves to be "above the national average."[24] Test-score inflation can be due to many factors, including making comparisons using outdated norms, and teaching to the test.

Staff morale problems can occur when rewards are selectively awarded, such as one state's recent policy of providing cash rewards only to principals of high-performing schools.

POLICY ISSUE 8: Helping the Public Understand Results

How the public, policymakers and educators view — and whether they understand — the accountability system has a lot to do with its success. One challenge is communicating clearly the results of the accountability system to policymakers — both in terms of the report cards and the system evaluation. A second challenge is to ensure that parents, teachers and the public see the accountability system as fair. To achieve this, these groups need to understand how the accountability system works, what led to specific rewards and sanctions being used, and why such actions are likely to be productive.

State leaders report that parents are confused about the difference between the new tests that report student progress toward standards and the familiar norm-referenced tests in which a single score gives a percentile rank against a national norm.[25] Standards-based accountability systems place students in categories such as "partially proficient," "proficient" or "advanced" based on their assessment scores. Parents may not know what it means to be "partially proficient" and may be more comfortable with percentile-rank comparisons than with assessment of learning progress over time.

COMMUNICATING NEW ASSESSMENT RESULTS TO PARENTS

To assist educators in explaining the new state assessment results to parents and the public, CONNECT, Colorado's Statewide Systemic Initiative, and a business coalition, Teaming for Results, created a teacher's guide to the Colorado Student Assessment Program.

To explain the difference between criterion-referenced tests and norm-referenced tests, Colorado uses the following example: Picture a group of students climbing a mountain. A norm-referenced test tells whether a given student is in the lead, near the middle of the group or lagging behind. It will not show where on the mountainside (near the top, middle or bottom) each student is — only their relative position to one another. The state assessment, on the other hand, is based on the state model content standards (a criterion-referenced test) and provides student achievement information based on proficiency levels. Proficiency levels show how well a student is meeting the state standards, or, in this case, where the student is located on the mountain.

Source: How Are Colorado Students and Schools Measuring Up?: A Teacher's Guide to the Colorado Student Assessment Program. CONNECT and Teaming for Results, 1997.

Issues such as low scores, the consequences of test results and costs sometimes arise and will need to be explained.[26]

Many of the "lessons learned" about involving the public in establishing standards and developing new assessments also apply to the design and implementation of standards-based accountability systems. They include the following:

- Public involvement is inseparable from policy development and implementation.
- Listen to people first, talk later.
- If you do not involve teachers, expect to fail.
- Show how new approaches enhance rather than replace old methods.
- Expect criticism and respond to it, but do not become preoccupied with it.
- Understand that it takes time to get results, and set expectations accordingly.
- Demystify reforms. Do not just tell people about new standards, assessments and accountability processes; show them examples.
- Communicate the big picture to the public while reserving technical discussions for teachers and others directly involved in implementation.
- Be willing to adjust plans based on the needs and concerns of educators, parents and the public.
- Build a strategic communications plan designed around people's questions and needs, and use it throughout the design and implementation process (see the ECS publications, *Building Community Support for Schools: A Practical Guide to Strategic Communications, Do-It-Yourself Focus Groups: A Low-Cost Way To Listen to Your Community, So You Have Standards . . . Now What?* and *Listen, Discuss and Act: Parents' and Teachers' Views on Education*

Reform for more information on communications plans and efforts).

POLICY ISSUE 9: Supporting Teachers, Schools and Districts

States can play several different roles in providing support for educators, including creating standards for licensure or certification and professional development, organizing professional development centers, providing additional resources, developing reform networks, or providing direct assistance to schools or districts.

Ensuring Professional Accountability

State efforts to ensure accountability need to focus as much on creating the conditions for effective teaching as they do on holding schools accountable. Raising academic expectations for students will work only if teachers have the knowledge and skills to make good decisions and teach in ways that help all students meet higher levels of achievement. Increasing accountability should be coupled with investments in improved teaching.

State efforts to ensure accountability need to focus as much on creating the conditions for effective teaching as they do on holding schools accountable.

The recent report of the National Commission on Teaching and America's Future[27] noted the failures of recent reforms are due not to schools' unwillingness to improve, but to the facts that most educators do not know how to implement the reforms, and their work environments are not structured to help them do so. If increased student achievement is the goal, it will need to be coupled with accountability policies that ensure teachers and other educators have the knowledge and skills they need to teach effectively to the new standards and help schools evaluate and reshape their practices.[28]

To ensure teachers have the knowledge and skills they need to teach to the new standards, many states are putting in place teacher licensure or certification standards. These can include what constitutes effective teaching and what teachers should know and be able to do (such as knowing core content, adapting teaching for diverse learners, using multiple assessment strategies, using a variety of instructional strategies, etc.).

The impact of professional teaching standards can be extended by state support of ongoing teacher professional development. This could include licensing teachers based on performance tests of subject-matter knowledge, teaching knowledge and teaching skill tied to standards developed by the Interstate New Teacher Assessment and Support Consortium. Another option is to create mentoring programs for beginning teachers that include assessment of teaching skills as the basis for a continuing license. Standards and assessments of the National Board for Professional Teaching Standards could be the standard for accomplished teaching and the basis for rewarding high levels of knowledge and skill.

Supporting Professional Development

States play a number of roles in supporting professional development.[29] In addition to taking the lead in developing professional standards for teacher preparation, certification or licensure, and professional development, states are providing assistance and resources for professional development opportunities. States such as Delaware and Ohio have developed regional professional development centers providing training and support for teachers. Other states, such as Utah, appropriate 2% of the Minimal School Program for state development activities at the local level and $1 million for statewide preparation activities.

Utah encourages districts to create a staff development policy, designate a staff development coordinator, align staff development activities with improvement goals and evaluate the programs. The Utah Department of Education also publishes an annual listing of summer inservice activities conducted by the state and other providers such as higher education institutions and local districts. Vermont involves teachers in the scoring of its state assessment program as yet another approach to professional development. Regional networks of teachers are organized to provide training on portfolio scoring and instructional training to help students create portfolios. Many states also support mentor teacher programs ranging from providing competitive grants to districts to create mentor programs to developing academies that train experienced teachers and administrators to become in-school consultants.

States also are providing professional development to administrators, usually through administrator academies. To lead instruction that supports students achieving high standards, administrators also must understand how to help teachers with instructional approaches, how to use data for student learning and school improvement, and how to share decisionmaking with teachers and school community members.

Promoting Local Accountability

School-level accountability can include a number of different strategies. First, schools need student achievement and other information to evaluate their effectiveness. District accountability systems should collect data on important goals and in grades and subject areas where the state accountability system does not collect information.

States can support the collection of additional data through their state assessment programs by requiring and supporting the administration and scoring of local assessment data, with a sample of the results reported to the state and included in the state accountability data. For example, North Carolina plans to place numerous performance tasks and scoring guides on a World Wide Web site which all teachers can access. Teams of educators from each district will score student portfolios each fall; the results will inform classroom instruction and be part of a local accountability system.

Schools may want to implement their own accountability systems such as requiring a student exhibition for graduation and setting up school-quality review committees. Mastery exhibitions require students to demonstrate their knowledge in front of review committees. This public demonstration of knowledge allows teachers and the community to talk about the meaning of achieving standards and the quality of student work. Constructive debates can help teachers interpret school goals and develop effective strategies for achieving them, which can lead to staff seeking new knowledge and skills.

School-quality reviews can be another strategy to foster local accountability. Teams of practitioners, possibly

including state department of education staff, spend a week in individual schools to examine teaching and learning practices. Feedback is provided to foster improvement, and the school-quality reviews also can result in descriptive evidence of how well the school is doing. This evidence can become a baseline for improving teaching and learning practices over the next several years.

States can support local accountability by creating expectations that individual schools establish their own standards for performance and reporting systems. It can support staff-development opportunities to help teachers within a school formulate performance goals and ways to implement them. Districts and states can establish and support reform networks to assist in sharing best practices and procedures for evaluating student learning and school goals and, most important, acting on the results.

Professional Development Centers

A number of states have taken a more active role in supporting or providing professional development. In addition to rethinking certification or licensure standards for teachers, several states are creating professional development centers.[30]

Ohio has 12 regional professional development centers for teacher training and development. These centers create and coordinate professional development opportunities and assist district staff with school improvement strategies. These centers also serve as a regional structure for many state programs such as school-to-work and tech prep. The centers build collaboration among school districts, institutions of higher education and private providers, and link resources and expertise to schools and districts.

Delaware also has a state-supported teacher center which grew out of collaborative efforts among several school districts. The center now manages eight regional professional development centers which provide inservice workshops, free instructional materials, on-loan equipment and a place and opportunity for teachers to share ideas about best practices.

Providing Additional Resources

Several states provide additional resources for schools or students who are achieving below grade level. For example, Alabama provides funds to schools for tutorial assistance for students one grade level or more behind the norm. Indiana provides grants to help schools provide remediation for students who score below state proficiency standards and prevent future remediation of students at risk of falling below the standards.

In 1996, Delaware authorized $200,000 for student tutoring and mentoring activities, distributed competitively to K-5 schools to establish programs for students academically at risk. Programs must address one-on-one tutoring, early-childhood preventive intervention strategies, parental involvement, and program and student performance evaluation.

Mississippi has established a Support Our Students program within the Department of Education to award grants to community and neighborhood organizations that provide high-quality after-school programs for children in grades K-9 and comprehensive delivery of services to those children.

New Jersey runs nontraditional high schools in each of its 21 districts, most on college campuses. At-risk students get extra support services and one-on-one counseling to help with academic and behavior problems. Each student's program is tailored to his or her individual needs and may even include enrolling in college courses.

Ohio has taken an innovative approach to supporting school improvement. The Venture Capital program provides "risk capital" of up to $25,000 for each of five years to help schools improve. Venture Capital grants are designed to be long-term, evolving efforts focused on a particular dimension of change, e.g., curriculum development, professional development, assessment. After the five-year time frame, schools are expected to have made significant progress in institutionalizing their commitment to professional development and transforming the culture in which school renewal is implemented.

Reform networks can help educators, schools and districts learn about approaches to instruction, curriculum design, assessment, professional development and management strategies that have proved effective in other settings, and assist them in adapting these approaches to their own circumstances.

Reform Networks

Reform networks are interconnected groups of educators, schools or districts with a common interest in a specific reform approach.[31] Some networks focus on a specific subject, such as reading or mathematics, while others target specific topics, such as assessment, literacy or minority student achievement. Still other networks offer a focused approach to reform and restructuring through the use of a specific "whole-school" design that links all aspects of the school or district — curriculum, instruction, assessment, staff training and school management. Other networks rely on more formal structures and processes, including a central staff that provides teachers and school leaders with the information and expertise they need to improve their knowledge and skills in specific ways.

Reform networks can help educators, schools and districts learn about approaches to instruction, curriculum design, assessment, professional development and management strategies that have proved effective in other settings, and assist them in adapting these approaches to their own circumstances. Networks provide a wide range of opportunities for professional growth and enrichment by engaging members in varied activities — curriculum workshops, leadership institutes, internships, conferences, study groups, electronic bulletin boards — designed around participants' needs and interests.

Some states that have enacted academic bankruptcy laws have found networks to be a useful tool for improving performance of chronically low-achieving or mismanaged schools. In several states, including California, Maryland and New Jersey, a school identified as failing may be required to affiliate with a reform network as part of its turn-around plan. States also may take an active role in serving as a clearinghouse or broker for networks.

Providing Direct Assistance

Kentucky's Distinguished Educator program is perhaps the best known example of a state-directed program providing assistance to low-performing schools. Created as part of the Kentucky Education Reform Act,

Distinguished Educators are selected from a pool of applicants to serve as teaching ambassadors to schools designated "in decline" or those that request the extra assistance. At the same time, Kentucky adopted the School Transformation Assistance and Renewal (STAR) project for assisting schools "in decline." STAR provides resources to schools and defines the change process Distinguished Educators use to help improve low-performing schools. The majority of schools with Distinguished Educators have improved student achievement such that they were no longer designated as "in decline."

POLICY ISSUE 10: Fine-Tuning the System

The success or failure of an accountability system is determined not only by its design but also by the level of commitment policymakers demonstrate to its ongoing implementation and refinement. Without such sustained commitment, an accountability system may be perceived as just another program imposed by the state.

The success or failure of an accountability system is determined not only by its design but also by the level of commitment policymakers demonstrate to its ongoing implementation and refinement.

It is important, for example, that proposed legislation be carefully monitored to ensure consistency with the accountability design. The state accountability panel or task force should be alert to initiatives that not only would be inconsistent and detrimental, but also would send a message to the education community that commitment to the accountability system is waning. Similarly, state education department and other agencies' policies must be reviewed for potential obstacles to implementing the accountability system.

Other Key Issues To Consider

- *Standards and assessments should be updated and refined.* As skill needs change, content standards should be adjusted to reflect these, as well as the assessments that measure them.

- *The state's budget must be aligned to the accountability design*, not only within the education portion of the budget, but also in other areas such as human services and health (for example, pre-K programs, juvenile justice and safe-school programs).

- *The state education department's relationship with the accountability panel, as well as its responsibilities for implementation, must be clearly defined.* The department's implementation plan must have a delivery system capable of providing the necessary technical assistance. It also must have the ability to disseminate information in a consistent, clear and effective manner.

- *Training should be a high priority.* Beyond the initial training in how the accountability system will work, there will be a need for ongoing training of teachers, principals, superintendents, school board members, university professors and school advisory council members.

- *Attention must be paid to the role of postsecondary institutions.* Not only will they be the recipients of students held to the state's standards, they also will produce the teachers who must have the skills to teach to the standards.

- *The business community needs to be involved.* Business community involvement may be in the form of technical expertise at the school or district level; influence in shaping state policy; and active, ongoing support of the state's standards.

- *Newspaper editorial boards should be kept up-to-date on the development and implementation of the accountability system.* If they are not kept within the loop, visibility of the accountability efforts will be lessened, and the potential for misinformation will be increased.

- *The state accountability panel should have responsibility for ongoing evaluation and refinement of the accountability system*, including the following:

  — Conducting an annual survey of schools and districts (this could be a random sample) to provide feedback on the status of implementation, the extent and effectiveness of the supporting infrastructure, and the identification of obstacles to implementation

  — Preparing an annual report to the legislative education committees and state board of education on the status of implementation

  — Annually reviewing the design and structure of the accountability system and making recommendations to the legislature on statutory changes, to the state board on rule changes and to the state department of education on administrative policy changes

  — Conducting a longitudinal study of the impact of the accountability system on student performance.

CONCLUSION

"A clear picture of what you want to accomplish, a comprehensive measurement system to gauge progress and a commitment to act on the results to make appropriate changes" — those were Colorado Governor Roy Romer's requirements for improving student performance. Content and performance standards are intended to provide the "clear picture" of what needs to be accomplished. A standards-based accountability system is the comprehensive measurement system to gauge progress. Demonstrating the "commitment to act," by supporting schools and districts with professional development opportunities, by engaging all students, and by securing broad public support and involvement — that is the challenge that remains.

APPENDIX A

FREQUENTLY USED INDICATORS IN STATE ACCOUNTABILITY SYSTEMS

Level	Purposes of Accountability System	Primary Design Features of an Accountability System Based on Purposes	Accomplishing the Purposes: Uses of Accountability Information
State	• Monitoring system progress • Identifying the relative performance of one system to another • Holding districts and schools accountable • Providing targets for instruction • Providing information for program improvement • Allocating resources • Certifying students	• Indicators could include information on expenditures, district or school demographics, program quality. • Assessment is aligned to state standards and assesses only core academic standards. • At least three grades are assessed — one in elementary school, one in middle school and one in high school. • Assessment item formats are primarily selected-response with some short-answer, extended-response and performance tasks to assess more complex standards. • If accountability system is "high stakes," then assessment meets high technical and legal criteria.	• Providing rewards and sanctions for high- and low-performing districts or schools • Revising state policy to improve adequacy and equity • Reallocating resources to where they are most needed • Targeting assistance to low-performing schools • Providing information to the public on the status of schools and the education system • Endorsing diplomas or providing certificates of mastery • Focusing teachers' attention on standards
District	• Monitoring district progress • Improving student performance • Holding schools accountable • Providing targets for instruction • Allocating resources • Evaluating program effectiveness	• Indicators collect information on school demographics, school-level expenditures, school program, teacher quality and parent satisfaction. • Assessment is aligned to district standards and may be administered at every grade or at grades not assessed by the state accountability system. • District assessment results are reported to the community and may be included in the state assessment results. • Assessment item formats include selected-response and can include more short-answer, extended-response, performance tasks and portfolios to assess more complex skills and variations in school designs while meeting technical accuracy.	• Providing rewards and sanctions for high- and low-performing schools (including determining if schools meet their performance contract agreements) • Reallocating resources to schools that need additional assistance • Identifying effective programs such as whole-school designs • Providing comparisons with other (similar) schools in the district • Reporting school-level data to the public to promote conversations related to school designs and school improvement; creating a consumer guide to district schools

APPENDIX A (Continued)

FREQUENTLY USED INDICATORS IN STATE ACCOUNTABILITY SYSTEMS

Level	Purposes of Accountability System	Primary Design Features of an Accountability System Based on Purposes	Accomplishing the Purposes: Uses of Accountability Information
School	• Providing targets for instruction • Evaluating program effectiveness • Placing students • Certifying students • Improving student performance	• Indicators could include community characteristics, student demographics, attendance rates, graduation/completion rates, tracking post-school student performance, school-level inputs such as resources allocated to professional development, instructional materials and degree of implementation of school program. • Assessments are aligned with school goals and school program. • Assessment item formats can include selected-response, short-answer, extended-response, performance tasks, portfolios and mastery exhibitions. • Assessment results are available in time to make improvements.	• Input for school's strategic planning process • Evaluating how well schools meet their goals • Evaluating effectiveness of school design for student population and community needs • Input for reallocating resources within the school • Basis for communitywide conversations on school improvement • Gauge parent satisfaction with the school program • Provide information for district's consumer guide to schools
Classroom	• Student diagnosis • Improving student performance	• Assessments are aligned with school program and are appropriate for the grade or student group. • Assessment results are immediately available to use for student diagnosis to improve student performance.	• Provide information on individual students for communication with parents • Provide information to place or select students • Provide information on effectiveness of classroom teaching and learning

APPENDIX B: GLOSSARY OF TERMS

Accountability. Accountability systems provide information that tells policymakers, the public and others how well the education system — classrooms, schools and districts — is doing. Information typically includes student assessment data and indicators such as dropout and graduation rates. Accountability information can be used in different ways: to provide information to the public, to help all the groups involved reach agreement on how to improve the system, or to provide rewards or sanctions for success or failure.

Accreditation. Accreditation is the review process a school or district undergoes periodically to ensure that it meets state requirements and quality measures. The process usually involves the review of a district or school's evaluation procedures and improvement plans; the effectiveness of education programs and services; and other policies, practices and management processes. Recently, some states began using accreditation as a performance-based process focused on student achievement and school-improvement planning.

Assessment. Assessment is the measurement of what a student knows and is able to do, usually expressed in terms of progress toward a standard or mastery of a standard. Assessment can include diverse measures, such as multiple-choice tests, constructed-response exercises, performance measures and portfolios.

Content standards. Content standards are statements that define what students should know and be able to do in various subject areas and at different points in their education.

Criterion-referenced test. This test is designed to provide a clear picture of what a student knows and can do. It measures performance against an established criterion or standard, rather than in comparison to a norm group.

Cross-sectional data. Cross-sectional data compare scores of students at a given grade level with different students at that same grade the prior year.

Expected score. The anticipated score for a student, school or district based on the correlation of background factors with student achievement to derive a score. This derived score then can be compared with actual student, school or district performance.

Indicator system. The system of measures of inputs, processes and outcomes used to describe the performance of a school, district or state.

Longitudinal data. Data collected from the same cohort of students over time. Longitudinal data can take into account statistical determinants of achievement such as socioeconomic status and family background and are suited to determining "value added" by a teacher or school.

Norm-referenced test. This test is designed to compare a student's test score with those of students in a norm or comparison group, such as a nationally representative sample. More generally, it has come to refer to comparisons of performance among students, schools, districts or states.

Performance assessments. Performance assessments, also called "authentic" or "direct" assessments, measure actual, demonstrated skills. Many times, these are constructed or written responses to questions on an assessment.

Performance standards. Performance standards provide explicit definitions and concrete examples of how well students are expected to learn the material represented by content standards. Performance "levels" also may be used to define students' demonstrated proficiency at various points as they progress toward a standard.

Portfolios. Portfolios are collections of student work designed to show progress over time, level of accomplishment and/or the student's best work.

Stakes. Stakes are the consequences tied to performance on an assessment or test. A "low-stakes" test has few or no consequences tied to results; a "high-stakes" test has consequences related to performance. Stakes can include rewards for high performance, sanctions for low performance, promotion or graduation. The

rank-ordering of schools or districts when test results are publicly reported can be considered "high stakes."

Value added. The amount of student achievement "contributed" by a teacher or school during a school year or other set period of time. A school's contribution to students' achievement is the "value added" by the school. How much schools add to students' learning can be calculated by assessing the differences in fall-to-spring (or fall-to-fall or spring-to-spring) testing of the same students.

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ADDITIONAL RESOURCES FROM ECS

Here are some other related publications from ECS that you'll find useful for getting citizen input and making decisions about education reform:

Accountability

Education Accountability in 50 States

How does your state's accountability system compare with other states? This publication defines the components of a performance-based education accountability system and then shows what each state's system looks like. Tables illustrate which states have standards and assessments, multiple indicators, rewards and sanctions; whether they are based in statute or regulation; how decentralized states compare to centralized states; and other information. 1997 (SI-97-12), 23 pp., $7.50

A Policymaker's Guide to Incentives for Students, Teachers and Schools

The goal of dramatically raising student achievement cannot be accomplished without changing the incentives for students, teachers and schools. This guide is designed to heighten policymakers' understanding of the choices and challenges related to creating incentives for these groups. It identifies the elements for improving performance in a standards-based system; describes incentives for students, including using standards for promotion and admissions to higher education or entry into apprenticeship programs; highlights incentives to increase teachers' knowledge and skills; describes incentives for schools, including reallocating resources, boosting achievement though school awards and implementing extracurricular programs; and finally, looks at implications for state policymakers in creating incentives. 1997 (AN-97-5), 44 pp., $10.00

Accountability — State and Community Responsibility

A decade ago, the idea that states could, or would, step in and intervene in local school districts because students were not achieving enough was almost unthinkable. Now, however, state intervention not only is acceptable among a majority of the states, but is becoming a major policy tool to deal with seriously underachieving schools or districts. Policymakers shared "lessons learned" at a recent ECS conference in Ohio; this paper summarizes that discussion. 1998 (SI-98-2), 20 pp., $6.50

Communications

Building Community Support for Schools: A Practical Guide to Strategic Communications

Learn how to build credibility, trust and stronger ties to the community by involving the community as change is considered — not after the fact. This guide focuses on the practical tools you need to develop strategic communications with education colleagues, parents and the general public. A step-by-step plan will help you set more thoughtful priorities, spend scarce resources more wisely, listen and respond to the needs and concerns of people inside and outside the education community, target activities to those who are most affected by and concerned about education improvement efforts, and regularly measure results. 1997 (AN-97-3), 32 pp., $10.00

Do-It-Yourself Focus Groups: A Low-Cost Way To Listen to Your Community

What is important to people in the school community? What changes do they want to see in their schools, and how do they want to participate in decisionmaking? Learn how to use the valuable information that informal conversation often yields. This guide helps you gather information in a systematic way, organize what you hear, report back what you've learned to the community and, most important, use that information to guide school change. 1997 (AN-97-2), 31 pp., $10.00

America's Public Schools Must Change . . . But Can They?

Half the voters in the last national election say their vote was affected by a candidate's stand on public education. How important is education in selecting political candidates? What role do people expect national leaders to play in improving education? And what kinds of change do people want to see in public schools? These and other questions are answered in a detailed report of a national survey ECS conducted following the November 1996 general election. Includes charts and demographic breakdowns. 1997 (AN-97-1), 26 pp. $10.00

Let's Talk About Education Improvement

Everyone has an opinion about education and they want to talk about it. You can help foster this dialogue and involve all segments of your community in discussions about how public schools can do a better job of educating students. This conversation guide offers tools for planning and holding a meeting, discussion activities, follow-up and take-home materials, and lists additional resources. 1996 (AN-96-3), 27 pp., $10.00

Listen, Discuss and Act: Parents' and Teachers' Views on Education Reform

What do the people closest to students think of education improvement efforts? Any communication about changes must start by listening to the people most affected by the changes. This report details the results of parent surveys and parent and teacher focus groups in seven cities and states. Includes recommendations for building public and political support for education improvement. 1996 (AN-96-2), 36 pp., $10.00

Listen, Discuss and Act: Focus Groups About Improving Education

A powerful video companion to the report *Listen, Discuss and Act: Parents' and Teachers' Views on Education Reform.* Hear what parents and teachers say about standards, parent involvement, assessment and accountability, and what they think gets in the way of efforts to improve schools. 1996 (AN-96-V2), 19 min., $10.00

Jargon

Winner of a Telly Award for outstanding video, this video provides a light-hearted look at a serious subject: how the language used by educators and education policymakers often obscures meaning and undermines support for reform. 1995 (SM-95-V4), 5:14 min., $8.00

Education Reform

The Progress of Education Reform: 1997

This year's report examines research data on student achievement, public attitudes and demographic trends with a brief interpretation of what the data means. Major education reform efforts and state actions under way are analyzed as to their effectiveness in improving student achievement. 1998 (SI-98-1), 51 pp., $12.50

A Policymaker's Guide to Education Reform Networks

Get the jump on the new federal money for educators interested in affiliating with a reform network! This publication tells you the kinds of networks available, how they work, and the benefits and services they offer. An easy-to-read-and-compare chart provides a thumbnail sketch of some major education reform network models. 1997 (SI-97-11), 40 pp., $10.00

The State Education System — A Continuum of Systemic Change

What constitutes systemic change? Where are you as a state in the change process? This chart describes different stages of systemic change in five key policy areas: vision, policymaking and alignment, teaching and learning, public and political support, and networks and collaboration. An effective dialogue tool for policymakers and lay audiences. 1993 (SI-93-1), wall chart (18 x 24 inches), $2.00

Creating a Flexible, High-Performance Education System

This set of charts provides descriptions of developmental stages for an education system that is moving from a regulatory system to one that encourages and supports a diverse set of schools. This tool describes the state policy changes necessary to create the flexibility needed for a high-performance system. Five key areas addressed include: standards, curriculum, assessment and accountability; decentralizing decisionmaking to the school level; professional development; resource reallocation; and public engagement. This tool can provide a basis for dialogue, self-assessment and action planning to move the system toward desired goals. 1996 (SI-96-10), 13 pp., $5.00

Standards

A Policymaker's Guide to Standards-Led Assessment

Learn how standards-led assessments closely link what is taught to what is tested. The helpful guide examines the important challenges of building consensus, assuring accurate measures, estimating costs, defining progress, addressing legal challenges and building public support. (This guide is jointly published with the National Center for Research on Evaluation, Standards and Student Testing.) 1997 (SI-97-3), 27 pp., $10.00

So You Have Standards . . . Now What?

With standards in place or being developed in nearly every state, next on the horizon are new assessments that measure progress toward achieving the standards and make it possible to target improvement efforts effectively. This guide provides tips and strategies on how to involve educators, the public and parents in deciding on new forms of assessment. Includes a list of concerns the public is raising about assessments and tips for meeting the policy and communications challenges ahead. 1997 (SI-97-2), 29 pp., $10.00

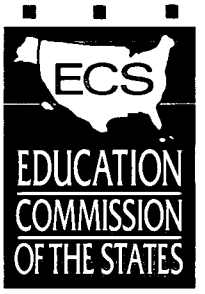
Stages of Implementation of Standards-Led Education

This wall chart describes the developmental stages of an education system implementing standards-based reforms. It describes how the system will shift in key areas such as public engagement, standards, assessment, curriculum and instruction, professional development, colleges and universities, and equity. This tool is especially effective in promoting dialogue and self-assessment among educators, administrators, policymakers and the public. (It is the shortened version of the policy tool described below.) 1997 (SI-97-9), wall chart (24 x 22 inches), $5.00

Stages of Implementation of Standards-Led Education

This is similar to the wall chart described above but includes more in-depth information and three additional policy areas — technology, system diagnosis and planning, and roles and responsibilities. This tool also is effectively used by groups to promote dialogue on where a school, district or state is on a continuum of change and provides a description of what the next level of implementation will look like. 1996 (SI-96-8), 16 pp., $5.00

To order one of the above publications, please call 303-299-3692.



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