Accountability for College and Career Readiness
Developing a New Paradigm

By Linda Darling-Hammond, Gene Wilhoit, and Linda Pittenger

national center for innovation in education
University of Kentucky

scope
Stanford Center for Opportunity Policy in Education

This report is made possible through a generous grant from the William and Flora Hewlett Foundation.

Suggested citation: Darling-Hammond, L., Wilhoit, G., & Pittenger, L. (2014). *Accountability for college and career readiness: Developing a new paradigm*. Stanford, CA: Stanford Center for Opportunity Policy in Education.

This research was first published in *Education Policy Analysis Archives* (August 18, 2014). http://epaa.asu.edu/ojs/article/view/1724

Stanford Center for Opportunity Policy in Education
http://edpolicy.stanford.edu
@scope_stanford

scope
Stanford Center for
Opportunity Policy in Education

national center for
innovation in education
University of Kentucky

Acknowledgments

This report was developed in the course of a series of discussions about the design of a new accountability system, convened by the Hewlett Foundation. We are grateful to the Foundation for its support of this work. The participants in these discussions offered substantial input and ideas. The final product — authored by Linda Darling-Hammond, Gene Wilhoit, and Linda Pittenger — reflects the individual and collective insights of the participants, but it does not reflect an endorsement by any of these individuals or the organizations with which they are affiliated. These intellectual contributors include:

Stephen Bowen, Council for Chief State School Officers
Anthony Bryk, Carnegie Foundation for the Advancement of Teaching
Richard Carranza, San Francisco Unified School District
Michael Cohen, Achieve
Linda Darling-Hammond, Stanford Center for Opportunity Policy in Education
Michael Kirst, California State Board of Education
Paul Leather, New Hampshire Department of Education
Philip Lovell, Alliance for Excellent Education
Carmel Martin, Center for American Progress
Jal Mehta, Harvard University
Charmaine Mercer, Alliance for Excellent Education
Rick Miller, Center for Organizational Reform of Education
Scott Palmer, Education Counsel
Linda Pittenger, National Center for Innovation in Education, University of Kentucky
Arun Ramanathan, Education Trust West
Larry Rosenstock, High Tech High School
Gene Wilhoit, National Center for Innovation in Education, University of Kentucky

Abstract

As schools across the country prepare for new standards under the Common Core, states are moving toward creating more aligned systems of assessment and accountability. This report recommends an accountability approach that focuses on meaningful learning, enabled by professionally skilled and committed educators, and supported by adequate and appropriate resources, so that all students regardless of background are prepared for both college and career when they graduate from high school. Drawing on practices already established in other states and on the views of policymakers and school experts, this report proposes principles for effective accountability systems and imagines what a new accountability system could look like in an imagined "51st state" in the United States. While considerable discussion and debate will be needed before a new approach can take shape, this report's objective is to get the conversation started so the nation can meet its aspirations for preparing college- and career-ready students.

Table of Contents

Introduction

As new college- and career-ready standards for learning are being adopted by virtually every state across the country, it has grown clear that many states and communities see the need to move toward more aligned systems of assessment and accountability that support genuinely higher and deeper levels of learning for all students, and more flexible designs for schools so that their graduates can meet the challenges of a world in which both knowledge and tools for learning are changing rapidly.

Outline of the Report

This report outlines a proposal for a new approach to accountability that is responsive to these demands, drawing on the experiences of states and nations that have tackled these challenges, as well as research that has evaluated the consequences of different approaches to educational improvement.[1] It focuses primarily on how states might construct well-aligned systems for assuring high-quality education for all students, and treats aspects of the federal role and local activities from that perspective.

In the first section, we set out some principles for effective accountability systems. In the second section, we imagine how these principles might be enacted in an imaginary "51st state," as an illustration of one of the many ways the principles might be applied. We were advised and assisted in this process by a group of individuals deeply knowledgeable about policy and school improvement, who had convened to tackle the question of what a new accountability system might look like. In the final section, we present examples of how elements of these proposals are already being enacted in some states and communities, in order to offer concrete form to some of the ideas.

Background

Policymakers and practitioners have learned a great deal from the experiences of the last 25 years and can build on educational improvements accomplished under both Democratic and Republican administrations. Our next steps should preserve the positive gains achieved as a result of a collective commitment to all of our children, while responding to current realities and concerns. Under the Improving America's Schools Act during the Clinton administration, we began the process of organizing school improvement around standards for learning, and measuring those standards periodically with state assessments, which included, in many states, portfolios and performance tasks assessing higher-order skills. Under No Child Left Behind (NCLB) during the Bush administration, we articulated a commitment to pursuing higher and more equitable outcomes for children across social groups, and a commitment to providing well-qualified teachers for all children.

Since 2002, these efforts have been pursued largely through test-based accountability strategies that have articulated annual targets for growth, along with consequences for not meeting those targets. Noticeable gains have been registered on the state tests that have been the focus of these accountability efforts. However, progress has been less evident on the National Assessment of Educational Progress (NAEP), where 8th- and 12th-grade scores have been largely flat. And on the Program for International Student Assessment (PISA)—a more open-ended test evaluating how students can apply their knowledge and can demonstrate their reasoning—U.S. performance has declined in math, reading, and science between 2000 and 2012, both absolutely and in relation to other countries. On all of these measures, large and persistent achievement gaps remain among students by income, language background, and racial and ethnic group.

It is clear that the NCLB legacy that "every child matters" represents an evolution in our thinking. It is also clear that our current strategies are not sufficient to ensure that, indeed, every child will be enabled to learn the higher-order skills that they need to acquire to succeed in today's world. The fuller array of deeper learning outcomes students need to acquire include the knowledge, skills, and dispositions needed to foster critical and creative thinking, problem solving, collaboration, multiple modes of communication, uses of new technologies, the capacity to learn to learn, and the social-emotional intelligence that fosters a growth mindset and supports resilience and resourcefulness. The broadened definitions of readiness being adopted by states, along with proposals emerging under recent ESEA flexibility waivers, are creating demand for greater investments in rich curriculum; sophisticated teaching; and new, more robust assessment systems that go beyond the multiple choice approaches that have been prominent since 2001.

The emerging paradigm for accountability must be anchored in this new vision for learning and should be coherently aligned to systemic changes implied by that goal. It should foster a culture of inquiry and continuous improvement at all levels of the system. This new accountability model must foster collaborative change that can transform schools from the industrial model of the past to innovative learning systems for the future. Accountability will need to build school capacity and enable thoughtful risk-taking informed by continuous evaluation to inform improvement.

While it is evident that we must pursue new assessment and accountability systems, we should learn from the accumulated wisdom of recent experiences. We know that supporting student growth is as important as tracking the status of a child's achievement. We know it is important to pay constant attention to children's progress, and we must maintain systems for determining how student learning is advancing each year. We must work toward a clear vision of what proficiency means for student performance, anchored in realistic and defensible standards. We must hold ourselves accountable for the success of all groups of students. We must develop more informative reporting systems and be more transparent in our communication with parents. Our evolving standards must accommodate a broad set of knowledge, skills, and aptitudes. And, our new designs must allow us to compare student learning within and across schools and districts.

Additionally, we must be prepared to challenge ourselves to take the next steps to ensure we are on track to developing systems to support success for all learners. We are positioned to move to a system of multiple assessments "of, for, and as learning," with curriculum-embedded local performance assessments embodying and supporting learning in classrooms, along with richer and more meaningful assessments that evaluate learning at the state and local levels.

We propose this new approach knowing that it is an intermediate step forward that is designed within the constraints of the current educational system. We realize that the experience and hard work of practitioners has expanded our vision of what is possible and our knowledge of how to implement this new vision. We will know a lot more because of innovations in policy, research, and practice that are challenging prior assumptions about what is taught, how students learn, when learning occurs, and where learning happens. It is our desire that this design support those who are creating more personalized learning anchored in deeper learning, competency-based learning, and student agency. It is our hope that this next-best-step-forward we are proposing will be evaluated, improved, and enhanced as the work evolves. No system should be frozen for extended periods of time to the point where we find ourselves now: in a place where the system inhibits our ability to do what we learn is best for the students we serve.

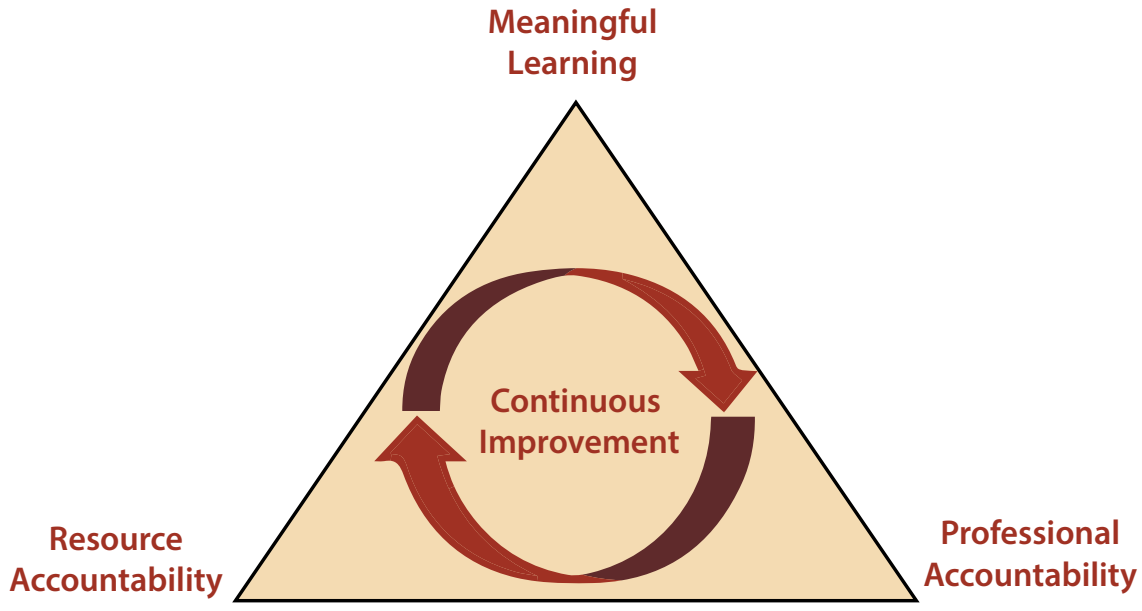
A New Approach to Accountability for Learning

Genuine accountability must both raise the bar of expectations for learning—for children, adults, and the system as a whole—and trigger the intelligent investments and change strategies that make it possible to achieve these expectations. It must involve communities, along with professional educators and governments, in establishing goals and contributing to their attainment. It must attend to parents' desires and students' rights to be taught relevant skills that will matter for their future success by competent and caring professionals in adequately resourced schools that are responsive to their needs.

Such genuine accountability will nurture the intrinsic motivation needed to develop responsibility on the part of each actor at each level of the system. Thus, a new paradigm for accountability should rest on three pillars: a focus on meaningful learning, enabled by professionally skilled and committed educators, supported by adequate and appropriate resources.

It should be animated by processes for continuous evaluation and improvement that lead to problem solving and corrective action at the local level, supported by the state.

FIGURE 1: KEY ELEMENTS OF AN ACCOUNTABILITY SYSTEM



Such a system should be: reciprocal and comprehensive, focused on capacity-building, performance-based, and embedded in a multiple-measures system.

When we say that accountability must be reciprocal and comprehensive, we mean, first of all, that each level of the system should be held accountable for the contributions it must make to produce an effective system. Second, it must attend to the inputs, processes, and outcomes that produce student learning: In others words, it must build capacity to offer high-quality education, while holding educators accountable for providing such education.

In addition to adequate, intelligently allocated resources and professional expertise, this should include developing problem-solving capacity that guides ongoing improvement, informed by data and by processes such as strategic planning, evaluation, and school quality reviews that identify and correct problems in effective ways. Intelligent evaluation of accomplishments, needs, and next steps that can guide diagnosis and improvement requires a dashboard of useful measures of student, educator, school, and system efforts and outcomes that are developed at both the state and local levels.

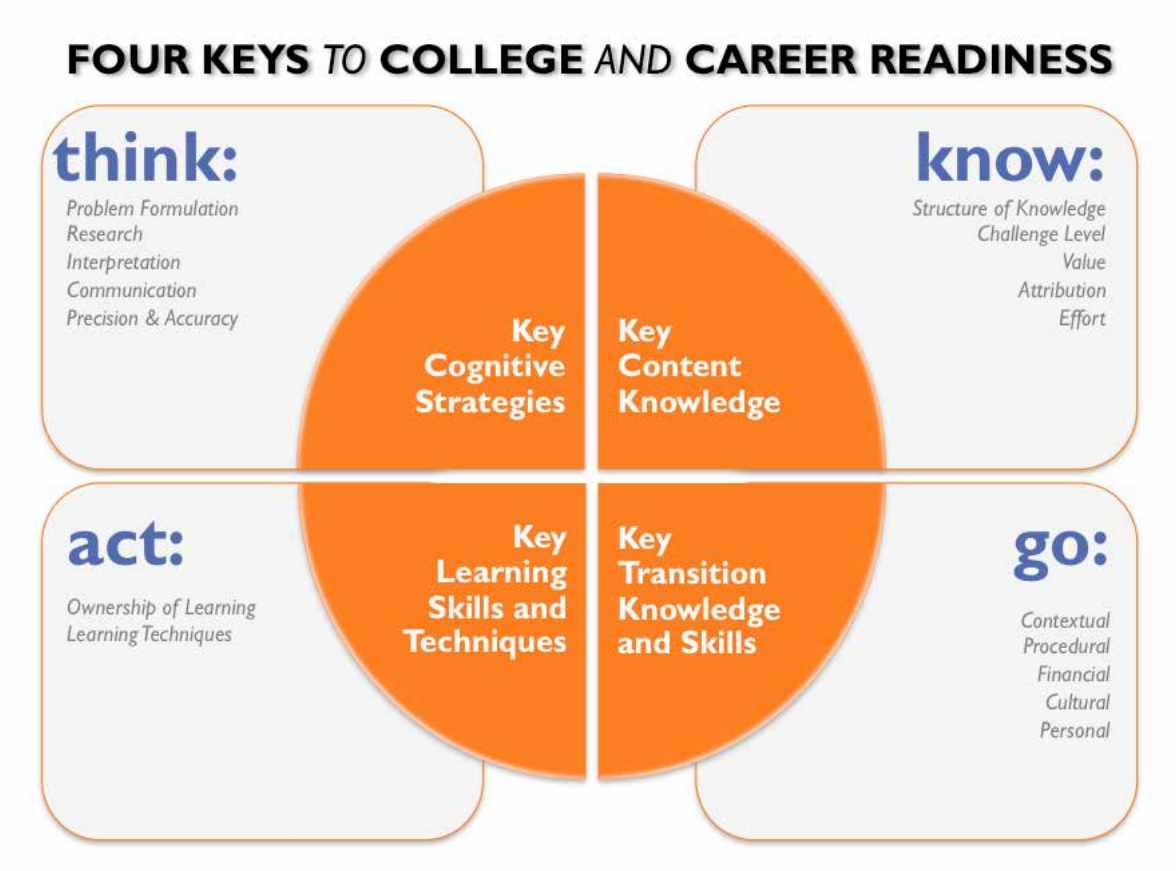
Accountability for Meaningful Learning

If meaningful learning for all students is the focus of an accountability system, the system should use a range of measures that encourage and reflect such learning, and it should use those measures in ways that improve, rather than limit, educational opportunities for students. This means we need both much better assessments of learning—representing much more authentically the skills and abilities we want students to develop—and multiple measures of how students, educators, schools, districts, and states are performing.

These skills and abilities include both the applications of content knowledge reflected in new learning standards and the "soft skills" that allow people to be strategic in their learning. For example, David Conley's description of skills needed for college and career readiness includes key cognitive strategies, such as problem formulation, research, interpretation, communication, precision, and accuracy; key content knowledge, including the structure of knowledge; key learning skills and techniques that allow learners to be conscious of how they learn and capable of taking ownership of their learning; and key transition knowledge and skills that allow young people to understand and manage the context, processes, cultural and personal factors, and financial dimensions of the decisions they might make as they move into college and career settings.[2]

A system of higher-quality assessments, both state-designed and locally developed, should include authentic performance tasks (e.g., classroom-based projects and products like those used in other countries) that assess and encourage the development of the full range of higher order skills. These kinds of assessments should be part of student learning evaluations and should also be part of a multifaceted collection of evidence for teacher evaluation and school review. Moving to a system of assessments necessitates that we abandon a singular focus on statewide summative assessments as the basis of all important decisions.

FIGURE 2: KEYS TO COLLEGE AND CAREER READINESS



As the CCSSO Accountability Advisory Committee recommended:

> Each state should establish rigorous statewide measures of CCR (such as through Common Core-aligned assessments), but should also provide latitude for district innovation to expand on those measures to include additional indicators of CCR skills or dispositions deemed important by the local community.[3]

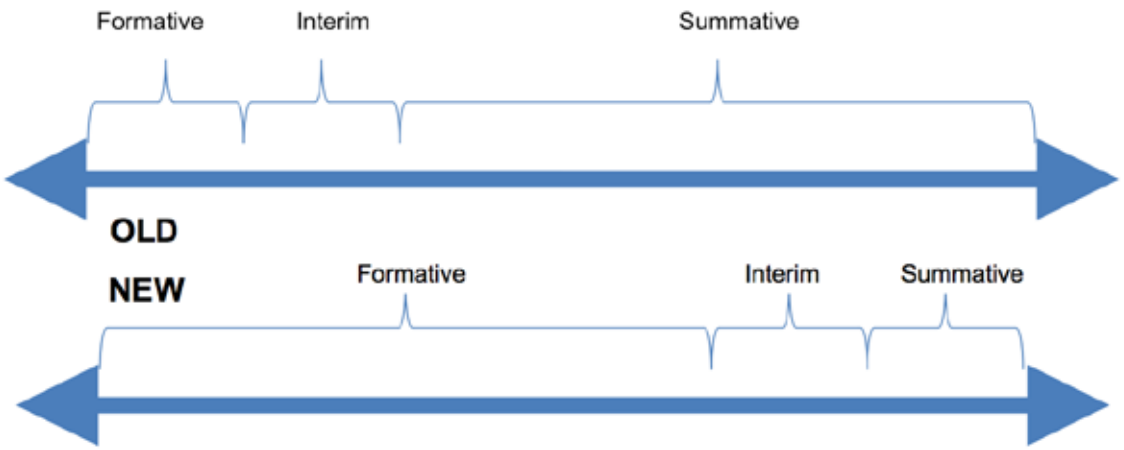
As in jurisdictions like Australia, Finland, and Singapore, the standardized measures can be used to validate the local assessment results, while the performance assessments are used to inform instruction, provide feedback to students and teachers, and enable diagnostic decisions, as well as to provide evidence of student learning. Both should be part of a research and development process to validate the assessments and to provide evidence of their effects on instruction and learning.

As performance tasks offer more detailed information about how students think and perform, they are more useful for formative purposes, although they can offer informa-

tion for summative judgments as well. Many school districts are routinely using digital tools that engage students in embedded performance assessments as an inseparable part of the learning process.

In a new system of assessments, it should be possible to move from an overemphasis on external summative tests, even as they become better representations of what students should know and be able to do, to a greater emphasis on assessment that can shape and inform learning. This strategy will reduce the "overtesting" burden, shifting time and energy from external summative events to formative assessments that can be used in more efficient and effective ways. (See Figure 3 below.) To achieve these benefits, we will need to rely more on adjudication at the local level where learning occurs. This implies more trust of professionals who are highly trained and supported with judgment tools and processes, such as common rubrics along with moderation and auditing processes for evaluating student work consistently.

FIGURE 3: RELATIVE EMPHASIS ON ASSESSMENT PURPOSES[4]



In a new system of accountability, multiple measures, coupled with thoughtful systems of judgment, should be used to inform decision making at each level. Transparency in providing information to the public and to educators and policymakers is a key aspect of the new accountability. Like businesses that use a dashboard of measures to provide a comprehensive picture of performance, we need a dashboard of indicators to inform key decisions (student placement and graduation; teacher evaluation, tenure, and dismissal; school recognition and intervention). Full and timely reporting of a wide array of information to parents and the community is a basic element of accountability. In line with professional standards, test scores should never be used alone for any such decision. Data should be thoughtfully interpreted and weighed by experts who make decisions based on multiple sources of evidence.

Through the federal waiver process for ESEA flexibility, states have already begun to incorporate broader measures into their accountability systems. Ultimately, long-term outcomes, such as success in negotiating college and careers, can become the true accountability measures. In the immediate future, a number of leading indicators can become part of state accountability systems. When evaluating schools, multiple measures of student learning can be coupled with other indicators of important education outcomes, such as,

- students' social-emotional competence, responsibility, citizenship, etc.;
- teachers' professional contributions to the professional team and the school as a whole, as well as evidence of individual practice; and
- school graduation rates, attendance, evidence of school climate (through surveys of teachers, students, and parents), rich curriculum opportunities, indicators of college and career readiness, and measures of successful transition to postsecondary learning and work.

This information should be used in a system that makes strategic investments in educational improvement rather than being used mechanically to mete out sanctions.

Resource Accountability in a Reciprocal System

Accountability tools must address the barriers to good education that exist not only within schools and classrooms, but at the district, state, and national levels as well. For although schools themselves may be appropriately viewed as a key unit of change in education reform, the structuring of inequality in learning opportunities occurs outside the school in the governmental units where funding formulas, resource allocations, and other educational policies are forged. In sum, if students are to be well served, accountability must be reciprocal. That is, federal, state, and local education agencies must themselves meet certain standards of delivery while school-based educators and students are expected to meet certain standards of practice and learning.

Thus, in addition to learning standards that rely on many kinds of data, accountability must encompass resource standards. With the advent of more challenging and authentic measures of student performance, the creation of accountable schools and school systems will demand methods for inspiring and ensuring equitable access to necessary learning opportunities, so that all students can achieve these learning goals. This means that local decisions about how people, funds, and time are allocated should not be separated from decisions about how the school is performing in relation to student learning. It also means that states should design funding policy to address equity and adequacy. A complete view of accountability must take into account smarter resource allocation throughout the system, including the appropriate roles of states and school districts in supporting local schools in their efforts to manage resources more effectively to meet standards. This includes:

- allocating adequate school resources in relation to students' learning needs;
- ensuring equitable access to high-quality curriculum and instructional materials that support students in learning the standards; and
- providing well prepared teachers and other professional staff to all students in settings that allow them to attend effectively to student needs.

Professional Capacity and Accountability

Also critical are professional standards of practice that should guide how educators are prepared and how they teach and support students. Accountability for implementing professional practice rests not only with individual educators, but also with schools, districts, and state agencies that recruit, train, hire, assign, support, and evaluate staff. Collectively, they hold responsibility for ensuring that the best available knowledge about curriculum, teaching, assessment, and student support will be acquired and used. Individuals and organizations should be responsible for building their own capacity for professional practice; they should be accountable for evaluating practice and student progress, and engaging in continual improvement based on the results.

These core building blocks of state accountability systems provide the foundation for schools' capacity to serve their students well:

- Educator capacity that enables teachers to teach for deeper learning and administrators to understand and support this work at the school and district level. Ensuring this capacity requires:

  ~high-quality preparation, induction, and professional development;
  ~accreditation and licensing based on evidence of teacher and administrator performance in supporting diverse learners to meet challenging standards; and
  ~evaluation based on multiple indicators of practice, contributions to student learning, and contributions to colleagues that supports ongoing learning.

- School capacity to meet student needs is based on school, district, and state actions that ensure:

  ~the availability of an appropriate mix of well-qualified staff who are properly assigned and adequately supported with professional development, and
  ~well-designed curricula and educational programs that are consistent with research.

- System capacity for professional practice and improvement must be supported by:

  ~awareness of research, as well as
  ~inspection or school-quality review processes that evaluate policies, programs, practices, and outcomes; diagnose areas for improvement; and guide appropriate interventions.

Professional capacity and accountability are reinforced by a system that has developed professional judgment as a key expectation for evaluating the work of students, the work of other teachers, and the work of schools. Expert professional judgment, used to make sense of qualitative and quantitative information, can support more defensible decisions. In addition, it can help professionalize education by serving as a form of professional development for educators, and it can support a more genuine sense of responsibility as educators, working with students and families, feel a sense of engaging in accountability themselves, rather than having it imposed externally. Finally, a more relational accountability is developed when educators act in a professional community with each other and when they interact in learning communities with families—something that can prove much more powerful than a more impersonal institutional accountability.

Continuous Improvement and Corrective Action

These three elements of a new system—supports for meaningful learning, accountability for resources, and accountability for professional practice—provide the grist for specific improvement processes that are informed by rich sources of data and diagnostic information about what is happening and what is needed to sustain growth and learning, as well as to solve pressing problems. These processes, like quality reviews for schools, use data in combination with expert judgment to evaluate progress in ways that provide actionable guidance for improvement.

They should be accompanied, as needed, by resources that can be directly applied to a turnaround effort—for example, the time and skills of expert educators who are trained and funded to work with struggling schools in teams, school pairs, or networks; curriculum specialists who can help overhaul instructional plans and coach teachers; the availability of wraparound services where those are needed to support student welfare and success; models and supports for successful afterschool or summer programs; and so on.

The same general principles should inform thoughtful evaluations for educators, coupled with supports for improvement and learning reviews for students.

New Accountability in the "51st State"

What might this new accountability model look like in a state that decided to develop all of these components in an integrated system? Figure 4 illustrates what the components of the system might look like. This is, of course, only one approach among many that could be used to put these principles into action.

Accountability for Meaningful Learning

The 51st state wants students' and teachers' work to be focused on the kinds of knowledge and skills that will contribute to student success after graduation, developed in relevant and engaging ways. The state pursues meaningful learning by:

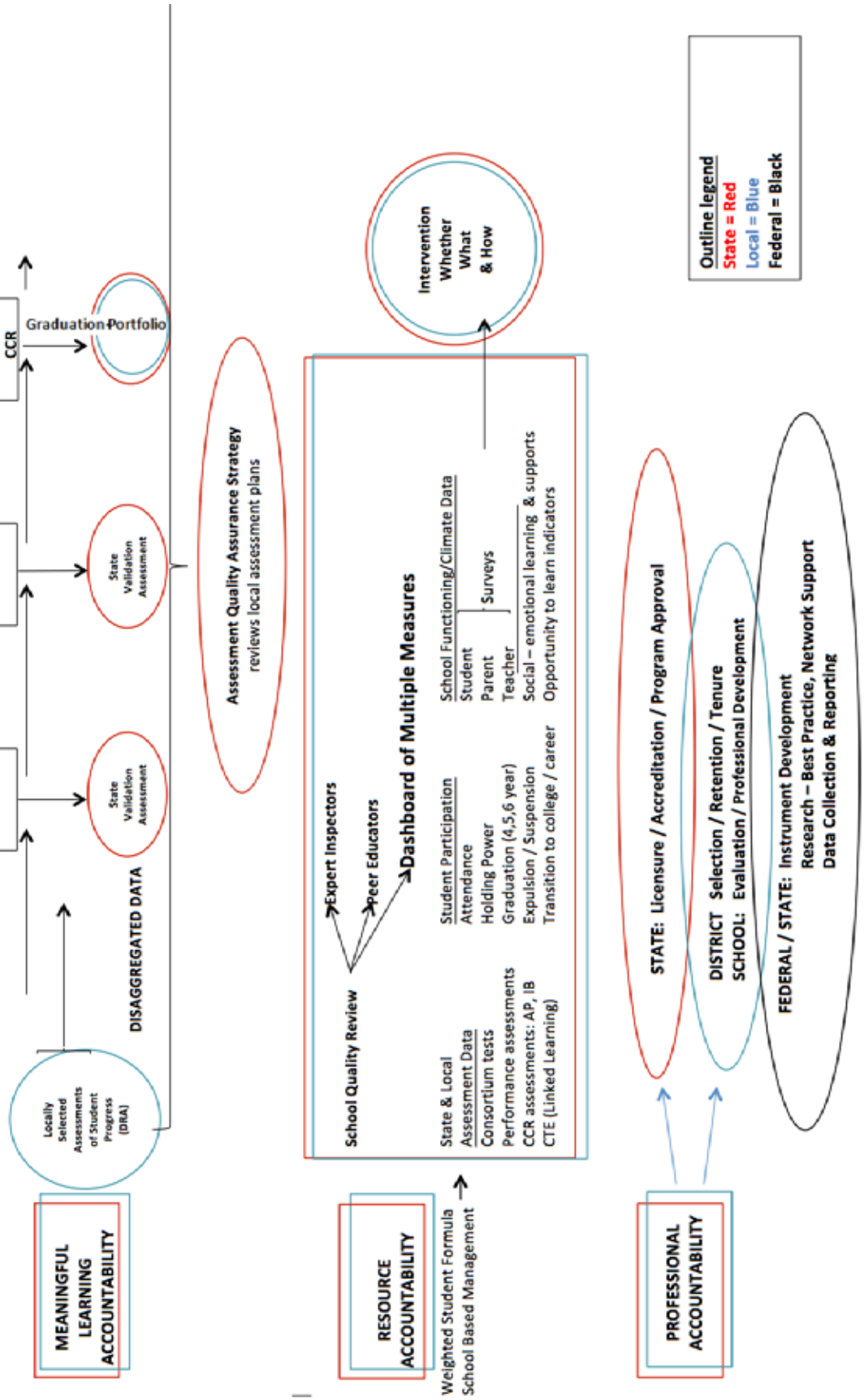
1) establishing college- and career-ready standards anchored in core academic knowledge and skills that recognize competencies considered by higher education, employers, and parents as critical to success;
2) supporting the development and distribution of high-quality curriculum materials and assessment tools for use by teachers and students; and
3) encouraging local districts to select and develop thoughtful, curriculum-embedded assessments of students' knowledge and skills that provide ongoing diagnostic information to support learning.

The state also plays a role in validating district and school outcomes and intervening in underperforming districts and schools to support corrective action.

The system is premised on multiple measures, which include, as one component, robust local assessments that can evaluate deeper learning skills, as well as state standardized validations of student performance to verify the results of local assessments. Such state validation could occur every year for every child, or at points in the grade spans that represent critical developmental junctures (for example, grades 3 or 4, 7 or 8, and 11 or 12), or differentially, depending on local needs. State assessments employ matrix sampling so that judgments can be made about a broader and deeper set of skills without overtesting children. Disaggregation of results is part of the reporting system for assessments.

Annual determinations of progress are maintained for every child at the school and district levels. These determinations are made more meaningful through tools that assess student movement along learning progressions (e.g., the Developmental Reading Assessment, the STEP reading assessment, writing portfolios providing evidence of growth in multiple genres along a continuum reflected in shared rubrics, and assessments of progress in mathematical thinking and skills along key progressions). Most local assessments are designed to be embedded in the curriculum, just as teachers' assessments in

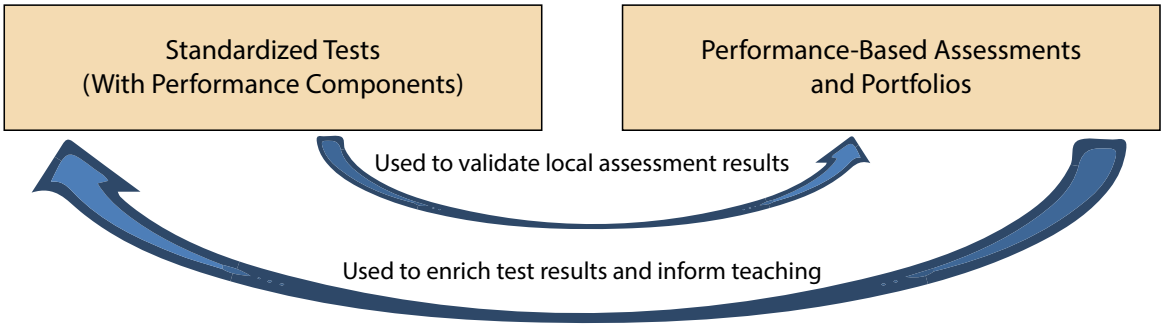
FIGURE 4: NEW ACCOUNTABILITY IN THE 51ST STATE



the form of papers, projects, presentations, quizzes, and other diagnostic evaluations currently are. However, these are designed to provide much richer diagnostic information more aligned to the new standards than many local assessments currently offer. The 51st state recognizes that students learn in different ways at different rates so that growth is benchmarked against learning progressions rather than grade levels. It also recognizes that students may progress at different rates in different disciplines or skill areas, and students are served much more flexibly than in our current fixed organizational structures. Districts can use state-developed or approved tools to track student progress (including common tasks assembled in an assessment bank, for example), or they can develop their own and bring them to the state quality assurance panel for approval.

State validations of student learning include assessments in English language arts, mathematics, and science that combine sit-down tests with structured performance tasks (e.g., writing samples taken individually or organized in structured portfolio collections, mathematics applications, and structured scientific investigations). Locally administered tasks allow students to develop and demonstrate complex college- and career-ready skills that require more time and different modes of demonstration than a short sit-down test can accommodate: inquiry skills, written and spoken communication, ability to use feedback to revise, uses of technology, etc. The state provides common rubrics, training for scoring, and auditing to ensure that these can be scored reliably. Teachers are involved in designing and scoring open-ended items and tasks in both the state and local assessments as a means for professional learning about the standards as well as for sharing strategies for designing curriculum and teaching to meet the standards.

FIGURE 5: ELEMENTS OF THE ASSESSMENT SYSTEM



Together, these comprise a system of assessments using both state and local sources of information: standardized test measures of certain aspects of students' learning that are assessable in a testing context—including performance elements that measure some higher-order analytic skills. These are augmented by more robust local performance

assessments that can support and evaluate harder-to-measure abilities: the ability to design and conduct extended investigations, to collaborate, to communicate in multiple forms, to persevere, to exhibit resilience, to use feedback productively, and learn to learn.

Measures embedded in local assessment programs that are used for state accountability purposes may be approved through Assessment Quality Assurance Processes (which can take the form of a panel comprised of expert practitioners and other curriculum and assessment experts, or other approaches to peer review). These processes are designed to ensure that the assessments and the ways they are applied (rubrics, scoring procedures, uses of results) are appropriate (e.g., that they measure the standards well and with high fidelity, are valid and can be reliably scored, and are used appropriately).

At both the state and local levels, curriculum and assessments support and reflect deeper learning skills, including critical thinking, problem solving, communication, collaboration, creativity, and the ability to learn to learn. The system also supports the development of social-emotional skills that colleges and employers recognize as important and that have both intra- and interpersonal dimensions, such as collaboration, resilience, perseverance, and an academic growth mindset, by including complex extended tasks that require students to learn how to work with others, to take and use feedback productively, to solve problems resourcefully, and to persevere in the face of ambiguity and problems. These kinds of tasks are, necessarily, embedded in the local curriculum, but those used for student or school judgments are scored with common rubrics, using moderation and auditing processes to achieve consistency when they are used as part of the reporting for accountability purposes.

State assessments address some of the key deeper learning skills as well, in less extended tasks, so as to signal what is valued and attended to. Local assessments can go further to foster and assess student initiative and choice, calling on students to be agents in their own learning by requiring them to design and complete their own investigations, assemble evidence about their progress and skills, and orchestrate collaborations that lead to the creation of products (e.g., software solutions, engineering designs, data collection and analysis, literary anthologies, topological maps, artistic productions, and museum exhibits) that emulate work or are created as a result of work in the world outside of school.

At the capstone level, in addition to the Consortium assessment of college- and career readiness at grade 11, students develop and maintain a portfolio of evidence (drawn from the assessments already described) regarding their performance in key areas of the curriculum and a profile of their accomplishments that can be communicated to colleges and employers. The portfolio serves as evidence that the student has met core competencies for readiness and has also prepared to meet personal goals for next levels of learning and work. Students complete some components in common and others that illustrate their unique talents and specialized studies and skills in chosen pathways. The

Table 1: 51st State's System of Assessments

Types of assessments	Pre-secondary level	Secondary level
Curriculum guidance	Curriculum Resources for New Standards: Curriculum frameworks that include unit templates, formative instructional tools, and performance assessment options with quality descriptors (rubrics)	Courses of study with embedded assessments (e.g., IB, AP, Linked Learning (CTE), or Early College/dual credit pathways, optional state courses of study with syllabi, locally designed alternatives
External tests	State assessments validating mathematics, ELA, and science learning at each grade span, one test per grade in grades 3-5, 6-8, and 9-11 (subjects may alternate at different grade levels—see note below)	Consortium College and Career Ready Test, at grade 11 or when ready, including research/writing task and mathematical application
Common performance tasks, locally administered	Common Assessment Tasks: Common performance tasks evaluating inquiry in science and social studies once per grade span; guidance for arts, writing, and technology tasks or portfolios	Common assessments embedded in courses of study; guidance for exhibitions of mastery in different fields, including competency-based badging or micro-credentialing
Locally developed assessments	Local performance assessment systems—locally scored and internally moderated	Graduation portfolios supporting student profiles, guided by state standards—locally scored/externally moderated

Although this description references classrooms, courses, and grade levels, the 51st state is moving toward a competency-based approach to education, which allows students to be assessed along a broader continuum of learning and achievement, using specific tests or tasks when they are appropriate for the individual child without regard to age or grade level.

common components are used to demonstrate college- and career-ready competencies that have been shown to be associated with postsecondary success:

- research and inquiry skills that require critical thinking and analysis (generally demonstrated in scientific investigations or social science research);
- quantitative reasoning applied to a real-world problem (through the use of statistical analysis in the science or social science investigations above, for example, or a project designed to illustrate mathematical problem-solving);
- communication skills (written and oral);
- collaboration skills; and
- use of technology for investigation and presentation of information.

These may be illustrated through tasks that are constructed to illustrate the mastery of disciplinary modes of inquiry in fields like science or history, or tasks that engage

students in interdisciplinary problem solving. The competencies are incorporated into common rubrics; tasks are scored with moderation. Students are also encouraged to include demonstrations of competence in other areas, for example:

- world language—a demonstration of proficient communication in a language other than English, through a recorded conversation or a written paper or letter;
- arts—a demonstration of performance in an area of the performing arts; and
- career/technical education—a demonstration of competence outlined in a career pathway (often developed with industry).

These components should be completed as part of the assessments already planned in a school, refined to meet a "portfolio standard," and may be drawn directly from a student's participation in an existing program of study, such as the International Baccalaureate program or a College Board suite of courses that include such assessments. Schools that participate in the New York Performance Standards Consortium, many Linked Learning schools, and schools in Deeper Learning networks will also have already developed portfolios that address these expectations. The state provides a set of models for districts to use if they so desire. At least one of these components should be defended before a panel that allows students to share and explain their work orally and in writing with a panel of teachers, other students, and community members, and to respond to questions.

This compilation of evidence is assembled with other evidence about students' accomplishments (e.g., grades, test scores, extracurricular activities, work experiences, letters from employers or teachers) and a reflective statement from students about their experiences and goals in a student profile that can be used as a tool to guide student advisement, goal-setting, and communication with colleges and employers.

The state has developed a platform in which students can upload the profile and their work samples into a digital portfolio that can be used by employers and postsecondary institutions for admissions, advisement, and placement. The portfolio includes a summary that makes key evidence easily understood by a user within 10-15 minutes—providing summary data, a short writing sample, a short videotape of the student presenting a learning demonstration, and a table of contents that can direct those who want more information to a link. Some users will look only at the summary data. But a college considering a student for an art major could look more deeply at the art portfolio, while an employer wondering about a student's oral skills and career and technical knowledge could click on the link to the presentation about a design solution that the student developed. Students carry their portfolio with them after high school to support their strategies for postsecondary success.

FIGURE 6: DIGITAL PORTFOLIO

Summary: Transcript, GPA, CCR test scores, statement of goals, distinctive accomplishments or "badges," short essay, 2-minute video clip from portfolio presentation, table of contents

Investigation of climate change trends in a local community (science and mathematics), includes paper, data set, and PowerPoint

What social and political forces influenced the passage of the 14th Amendment to the Constitution? (historical inquiry)

The American Dream in 20th century literature (literary analysis), includes videotaped presentation to panel

Demonstration of competence in world language: Tamil (audiotaped conversation and paper)

Accountability for Adequate and Intelligently Used Resources

The 51st state has pursued resource accountability by developing a weighted student funding formula that allocates funds based on pupil needs, allocating a greater weight to students living in poverty, English learners, and students in foster care. By providing resources more equitably, the state can expect schools that serve high-need students to provide the wraparound services that will enable children to come to school healthy and ready to learn and can ensure that they are adequately supported once they are there. In addition, the state holds districts accountable for intelligent and equitable use of funds by requiring that local communities be involved in decision making about budgets and programs, and by tracking key inputs and results for all districts and schools.

Transparency is a key aspect of the accountability strategy. A multiple measures system of accountability includes a dashboard of indicators—some required by the state for all schools and others proposed and tracked by local communities that have a voice in the accountability process. The measures include evidence about both outcomes and inputs, supporting diagnosis of what is working and what is not. Like the dashboard on a car, which provides indicators of speed, distance traveled, fuel, fluids, tire pressure, and more, the combination of measures signals where to look further to figure out how things are working. Outcome data are disaggregated by student race and ethnicity, poverty, language status, and disability status.

The report card for each school indicates current status and progress on each of the measures, much like the reporting system used in Alberta, Canada. (See the appendix.) Thus, the public has access to evidence provided by districts and schools about what

they offer their students and what the outcomes are; schools can see where they are doing well and where they may focus improvement efforts, and the state has a well-organized set of indicators about how schools are progressing and which ones need further assistance.

FIGURE 7: DASHBOARD OF MULTIPLE MEASURES—OUTCOMES

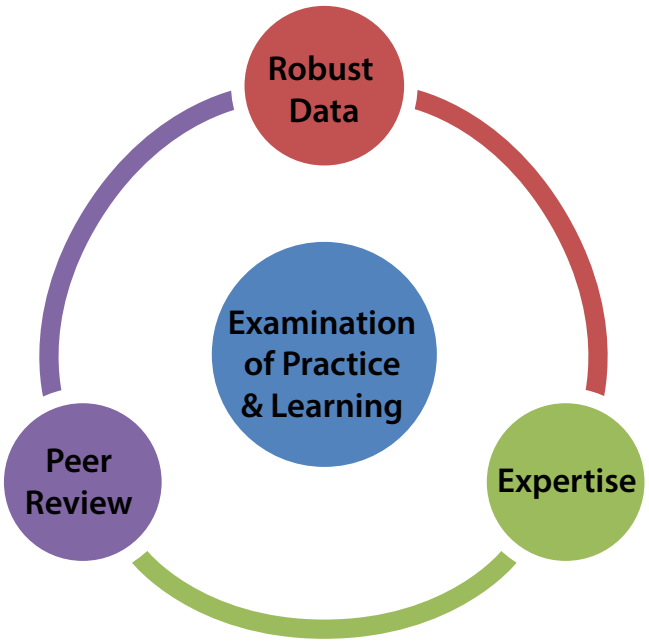
State & Local Assessments	Student Participation	School Climate / Opportunity to Learn
Consortium tests Performance assessments English-language proficiencey gains Assessments of college & career ready skills: AP, IB. CTE	Attendance Persistence rates Graduation (4, 5, & 6 year) Expulsion / suspension Postsecondary transition Second-year enrollment in IHEs	Student surveys Parent surveys Teacher surveys % completing CCR courses of study Social-emotional learning & supports
Inputs / Context		
Instructional expenditures Educator qualifications	Student characteristics Student supports	Curriculum offerings Extracurricular opportunities

Corrective Action. These data are the grist for a School Quality Review system that helps schools assess their practices and work on areas for improvement, and that supports intervention and corrective action in schools where the evidence suggests that achievement is not adequate and students' needs are not being met.

The School Quality Review process brings together several elements that have not been joined before in most education policy systems: robust data, educational expertise, and peer review. Like the Inspectorate model used in many countries abroad, it is guided by experts who are deeply knowledgeable about practice and well-trained in how to conduct a diagnostic inquiry into school practices and their relationship to the nature and quality of student learning.[Similarly, states like Kentucky and North Carolina have formed teams of expert educators (often highly accomplished teachers and administrators) to diagnose and help address the needs of low-performing schools.]

Like U.S. accreditation systems, the engagement of peer reviewers from other schools in the state brings multiple perspectives to the task while stimulating a learning process for participants that expands their knowledge and sharpens their analytical skills. Like many research endeavors, the skillful use of robust quantitative data, much of which is comparable across schools, with qualitative insights developed from looking purposefully at teaching and student work and talking to stakeholders, allows reviewers to get a better understanding of how the school is working and what may help it improve. By combining these things, the process is more powerful and purposeful than accreditation approaches have been in the past.

FIGURE 8: SCHOOL QUALITY REVIEW



In the 51st state, the School Quality Review process is available to all schools on a cyclic basis (typically every 5th year), and to schools that volunteer to participate more frequently because they want the additional help it can provide. It is activated immediately for schools that are identified by red flags associated with their students' achievement, participation, or opportunity-to-learn outcomes (low performance, little improvement, or large equity gaps). The Review is joined with an intensive support process in which the district and state identify and activate the human and other resources that are needed to enable the school to turnaround its practices and student performance. The system of identification for intervention is based on a set of criteria for school conditions and progress, rather than on a norm-referenced percentage of schools.

A support capacity has been built to work with schools or districts that request or are identified for improvement assistance. The support structures include:

- training and deployment of a cadre of Distinguished Educators—accomplished teachers, principals, and superintendents—who are intensively trained and made available to work with schools and districts that are engaged in intensive improvement or turnaround efforts;
- support for pairings and networks of schools focused on sharing expertise for the purpose of school improvement;
- professional development for school leaders and school teams implementing new curriculum standards, using assessments to inform improvement, and developing school improvement initiatives, including

more productive professional learning communities and Peer Assistance and Review Programs; and
- training of mentors for teacher and administrator induction and coaches for veteran teacher support.

These structures build the capacity of schools to do their work well, while ensuring that students are not left to languish in schools that are performing poorly.

Professional Capacity and Accountability

Finally, the 51st state works to ensure professional capacity and accountability in a number of ways.

It has strengthened initial entry into the profession for teachers and administrators by:

- strengthening expectations for programs to develop candidates' capacities to teach the Common Core State Standards and to work with diverse learners (including economically disadvantaged students, special education students, and English language learners). These capacities include a strong understanding of student learning and development; curriculum, instruction, and assessment within the content areas to be taught; classroom management; and how to work collaboratively with colleagues and parents;
- sharing information about successful program models;
- investing in stronger clinical training models through residencies and professional development schools;
- evaluating candidates' readiness to teach and lead through teacher and administrator performance assessments for licensing and feeding results back into programs for reflection and improvement;
- leveraging higher quality preparation through performance-based accreditation that examines program results (through pass rates on teacher and administrator performance assessments; graduate and employer surveys, entry and retention rates in teaching and administration, and evidence of graduates' later effectiveness) as part of a more serious accreditation process;
- supporting high-quality induction by training and supporting the time for mentors to work closely with beginning teachers and administrators.

It has built on this stronger foundation to develop professional learning systems that:

- offer high-quality curriculum resources (including instructional materials and videotapes of practice) around which professional develop-

ment can be organized and on which teacher teams can build, try, and refine locally adapted lessons and instructional strategies;
- organize sustained, high-quality professional learning opportunities for networks of educators (e.g., through subject matter projects) focused on developing practice through extended institutes, collective inquiry, action research to solve complex problems of practice, and coaching;
- provide incentives for schools to establish flexible structures within the teaching day and year that provide time for teachers to participate in collegial planning and job-embedded professional learning opportunities;
- provide ongoing training for schools to develop effective professional learning communities that can analyze student learning and school progress in relation to practice, and engage in ongoing improvement.

It has helped local districts build stronger evaluation systems that:

- are based on professional standards that are used to assess educators' practices from pre-service preparation to induction and through the remainder of the career;
- combine evidence from several sources, including standards-based measures of educator practice and valid evidence of student learning that is appropriate to the curriculum and students being taught. These are examined in relation to one another, along with evidence of professional contributions to school improvement;
- include opportunities for both formative and summative evaluation, providing information both to improve practice and to support personnel decisions;
- tie evaluation to useful feedback and to professional learning opportunities that are relevant to educators' goals and needs;
- acknowledge the time, curriculum resources, and professional learning needed to learn to implement more complex standards, such as the CCSS and NGSS;
- differentiate support based on the educator's level of experience and individual needs;
- build on successful Peer Assistance and Review models for educators who need assistance (both administrators and teachers) to ensure intensive, expert support and well-grounded, timely, and effective personnel decisions;
- value and promote collaboration, which feeds whole school improvement;
- are a priority within the district, with dedicated time, training, and support provided to evaluators and to those who mentor educators needing assistance.

It has promoted equity in the provision of expertise to students by:

- equalizing resources to districts while tracking and encouraging the provision of well-qualified and effective teachers to all schools;
- creating a greater supply of experienced, qualified, in-field, and effective teachers to high-need schools through service scholarships to recruit a diverse pool of high-ability educators to high-need fields and locations by paying for their preparation in exchange for at least 4 years of service in the state's schools and through teacher residency programs that recruit, prepare, and mentor candidates to learn to teach well in high-need districts; and
- building professional capacity through the state by creating a statewide learning system, and developing a State Education Agency that sees its job as building professional expertise rather than just managing compliance. This agency shares research and best practices through its website and dissemination activities (newsletters, conferences, school quality review activities); documents and disseminates what is working in schools in the state in multiple ways, including case studies, site visits, and tools to support local policy and practice; and sets up and supports learning networks that allow districts, schools, and educators to learn from one another.

At the end of the day, policymakers and practitioners hope that these strategies will produce schools that are responsible for implementing a strong teaching and learning system and responsive to the individual needs of all the students they serve.

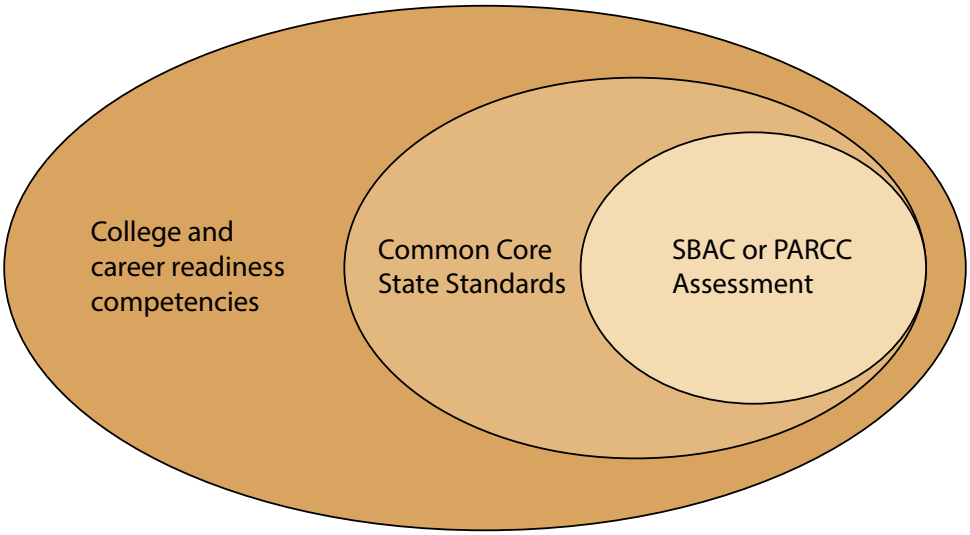
Emerging Elements of a New Accountability

Many of these elements of a responsible and responsive accountability system are already emerging in states and districts across the nation. A few of these are highlighted here.[5]

Accountability for Meaningful Learning

About 40 states have been involved in two consortia that are developing new assessments of the Common Core State Standards: the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC). These promise to include more open-ended questions and tasks that can better evaluate higher-order thinking and performance skills than many state tests included in the past. A number of states are participating in an Innovation Lab Network under the aegis of the Council of Chief State School Officers. They are strategically designing a variety of ways to develop and assess the full range of Common Core State Standards and, beyond those, many of the additional college and career readiness skills—the abilities to self-assess, plan, persevere, use feedback, and learn independently—needed for success in the world after high school.

FIGURE 9: COMPETENCIES TO BE DEVELOPED AND ASSESSED



New Hampshire, for example, has begun to create a system of state and local performance assessments that aims to "promote the use of authentic, inquiry-based instruction, complex thinking, and application of learning . . . [and] incentivize the type of instruction and assessment that support student learning of rich knowledge and skills." In addition to the Smarter Balanced Assessments in English language arts and mathematics, this system will include a set of state-developed common performance tasks in the core academic subjects, plus locally designed assessments made available through a

web-based bank of local and common performance tasks, and a district peer-review and auditing process to ensure validity and reliability.

Each district will propose to the state a locally designed Performance Assessment of Competency Education (PACE) system that will provide measurable outcomes aligned with district goals and state priorities. The system will include annual determinations of student achievement and growth through locally designed and state-validated systems of performance assessments, and will provide external validation of the performance assessments through statewide summative assessments of college and career readiness in grades 4 and 8.New Hampshire is supporting districts' development of PACE models by developing common statewide performance tasks and the necessary processes, tools, and protocols for validating high-quality tasks aligned to state standards. The state is also organizing professional development institutes and regional support networks, and is developing a network of practitioner "assessment experts" to support schools.

The district peer review audit process is intended to help build local capacity to do this work well. Peer review teams of external practitioners will review evidence submitted by the district, and will also collect additional data and provide feedback according to common criteria during a site visit to the district. According to current designs, the peer review process will be used to provide formative feedback to districts during the first 2 years. By the 3rd year, however, the audits will become integral to the approval process for districts seeking to implement a Performance Assessment of Competency Education model for accountability purposes.

Kentucky maintained a system of performance assessments for two decades, including a writing portfolio and mathematics performance tasks, and is now redesigning its systems around Common Core State Standards (evaluated in part through the PARCC assessments) and a college- and career-readiness agenda. One element of this new effort has been to free some districts from state requirements though legislation creating Districts of Innovation (DofI). Among these districts, Danville has incorporated the portfolio graduation strategies developed by schools in the New York Performance Standards Consortium: a set of rigorous, performance-based tasks at the high school level that must be presented to a committee, defended, and revised to meet a high standard. The tasks include a scientific investigation, a social science research paper, a literary analysis, and a mathematical modeling paper, which, when completed at a passing level, waives students in these schools out of the New York Regents Exams. Consortium teachers score the tasks in a moderated system. Other Kentucky Districts of Innovation are adopting similar strategies.

House Bill 424 had proposed an amendment to Kentucky's previously passed Districts of Innovation legislation that would allow such districts to apply for modification or waiver of provisions of the statewide assessment system if the alternate assessment plan meets the intent of the statewide assessment system and is consistent with the requirements of NCLB, its successor, or federally granted waiver.[6] Similar to New Hampshire,

Kentucky hopes to develop technical guidance and capacity to validate locally designed performance-based assessment and accountability models that would include external audits via statewide summative assessment in grades 3, 5, and 8. The House bill has not yet been passed in the Senate, however. In the meantime, Kentucky is working on plans to encourage Districts of Innovation to operate performance-based assessment and accountability models while still administering all statewide summative assessments required in statute, at least for a transitional period as necessary.

In Rhode Island, a high school diploma requires successful completion of at least two performance-based diploma assessments, the options for which are decided by the district and may include graduation portfolios, exhibitions, comprehensive course assessments (50% of which must be performance-based and include evaluation of knowledge application), or Certificate of Initial Mastery. Districts are charged with developing the performance-based diploma assessments, which must include demonstrations of both core content proficiency and applied learning skills, as determined by a panel that evaluates the student performance using a state-approved rubric. Within the allowed forms of assessment, the Graduation Portfolio option is defined in regulation as a "collection of work that documents a student's academic performance over time and demonstrates deep content knowledge and applied learning skills," with evidence including both required and student-selected performance-based demonstrations, reflections, and a final presentation.[7]

Similarly, high school diplomas in Maine are awarded based on demonstrations of proficiency around the Maine Learning Results and Guiding Principles,[8] and must take into account, "in addition to any local course work and accumulation of credits, a broad spectrum of learning experiences that may include internships, portfolios, long-term capstone projects," and other "appropriate learning experiences that provide opportunities to demonstrate proficiency."[9] Like New Hampshire and Kentucky, Maine is part of Innovation Lab Network activities to build a shared performance assessment bank and to use local performance assessments as part of the state accountability system.

Resource Accountability

In a reciprocal system, not only does the state hold schools, educators, and students accountable for meaningful teaching and learning, but also parents and communities can hold the state accountable for allocating resources in a fair and equitable manner and for investing in ways that are designed to accomplish the goals of career- and college-readiness. Adequate and intelligently used resources thus become part of the accountability system, along with indicators of system performance that allow an evaluation of whether appropriate progress is being made at the school and district levels.

California recently adopted a Local Control Funding Formula (LCFF), which brings new money into the system that will increase annually over the next 6 years, and al-

locates all of the funding based on pupil needs. LCFF eliminates categorical funding while providing a base grant for each LEA based on per average daily attendance, with an extra 20% boost for each disadvantaged student (low-income, English learner, or foster care child) and additional funding for those who attend schools where at least 55% of students are disadvantaged.[10] This will reverse the effects of a system that previously provided the least resources to the highest-need students.

The Local Control and Accountability Plan (LCAP), which accompanies the new funding, requires California districts to develop, adopt, and annually update a 3-year accountability plan that includes identifying goals and measuring progress for student subgroups across multiple performance indicators. The state requires indicators from state assessments (the SBAC tests will measure Common Core State Standards, and the Early Assessment Program provides information to state universities about college readiness) and other kinds of assessments (e.g., Advanced Placement tests, English proficiency scores), as well as information about student persistence, graduation, college-going, school climate, and parent input and participation. Districts can add to the state measures.

Allocating funds based on student needs

Several other states and districts have developed approaches like California's. For example, Massachusetts adopted a weighted student formula funding system in the 1990s that is credited—along with its investments in early childhood education, extensive professional development for teachers, and new standards and assessments—with propelling large gains in student achievement in the state, especially among previously low-achieving students.[11] Similar plans have been proposed in Ohio (Governor Strickland's Evidence-Based Model (EBM) school funding reform plan proposed in 2009, which also included a teacher compensation system to combat the inequitable distribution of teachers)[12] and in Colorado (legislation proposed in 2013 that added weights for low-income students and English learners, while creating a teaching and leadership investment, an innovation fund, and targeted investments in preschool and full-day kindergarten).[13]

New Mexico created one of the first weighted student funding formulas in the country in 1974, which divorced student funding from property tax values and allocated dollars based on a set of identified student needs (e.g., poverty, English learner status, special education needs).[14] Because the base funding has fallen behind and some district needs have outpaced the plan, legislators have been considering updating the formula. Meanwhile, through its recently approved ESEA waiver, New Mexico requires schools to monitor the return on investment for interventions in underperforming schools and shift strategies if they are not seeing results. The state conducts annual monitoring of this through the budgeting process. It also works to identify and replicate interventions showing strong effectiveness.

Baltimore, New York City, and San Francisco all finance their schools through a Fair Student Funding system whereby each school receives its share of the total through a per-

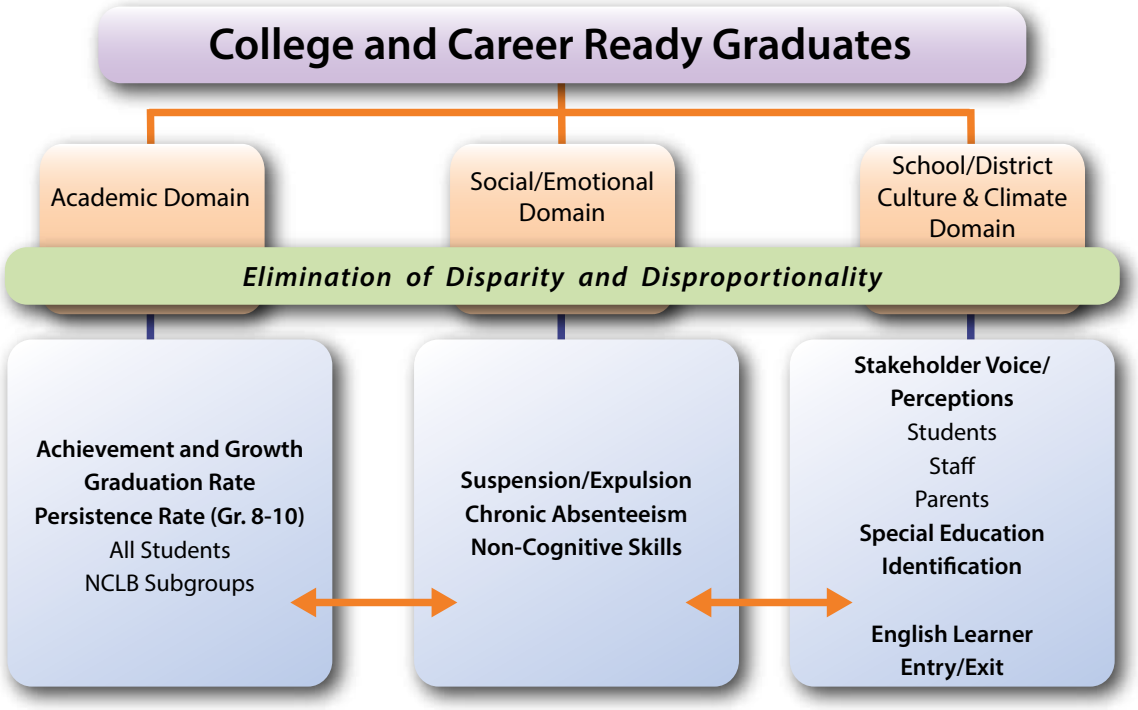
pupil formula that allocates a base level of funding for each student and supplements this with weights for students with particular learning needs and circumstances.[15] Each allows principals to make key financial decisions for their schools, generally in collaboration with a school site council, and creates a school report card or other data system to record results that are intended to shape future programmatic and budget decisions.[16]

Evaluating school needs and outcomes using multiple measures

As suggested by these examples, evaluating the thoughtful use of resources in terms of the students' needs and the outcomes that the investments produce requires a broad and thoughtful set of information. During the 1990s, a number of states included multiple measures in their systems of accountability. Most of these systems were displaced by NCLB requirements; however, systems that report multiple measures have begun to return with the flexibility waivers under ESEA.

Perhaps the most comprehensive approach has been developed by the California Office to Reform Education (CORE) districts in California, which have built on California's multiple measures system under the LCAP and developed a multi-dimensional system for informing school accountability and improvement. These districts (Fresno, Long Beach, Los Angeles, Oakland, San Francisco, Santa Ana, and Sanger) joined together and were granted a federal flexibility waiver under NCLB, which includes the accountability measures shown below.

FIGURE 10: CORE ACCOUNTABILITY STRUCTURE



Many of these measures are required by the state LCAP, but others, such as the non-cognitive skills associated with social-emotional learning, are locally determined and measured. All of these measures are considered individually in informing schools about their progress and supporting ongoing improvement efforts.

Other indicators used in California's LCAP are also reported in CORE districts, including measures of students' opportunities to learn and parents' opportunities to be involved in their children's education. These include:

- the availability of qualified teachers, adequate facilities, and necessary materials;
- student access to a broad curriculum, including the core subjects (including science and technology), the arts, and physical education;
- student access to college coursework and career pathways;
- evidence of parent participation and opportunities for input.

To meet federal requirements for identifying low-performing schools, CORE developed a School Quality Improvement Index comprised of weighted measures within three domains:

- Academic (achievement and growth, graduation rate, and persistence rate in grades 8-10, together 60% of the index);
- Social/Emotional (suspension/expulsion, chronic absenteeism, and noncognitive skills, together 20% of the index); and
- School/District Culture & Climate (stakeholder voice/perceptions of students, staff, and parents; special education identification; and English learner entry/exit, together 20% of the index).[17]

To couple resource allocations with identification of school needs, CORE directs improvement resources (formative tasks, student remediation courses, professional development for teachers) toward any school that falls below certain thresholds (e.g., a specific pass rate on the 10th grade California High School Exit Exam), regardless of the school's overall rankings. CORE has also outlined a resource-enriched School Quality Improvement process that builds professional capacity in schools that are identified as priority schools, as well as sharing expertise among all schools in the consortium.[18]

Some other states have also begun to develop multiple-measures approaches to assessing school performance in ways that are intended to focus attention on key dimensions of learning and to create incentives for attending to important outcomes. Generally speaking, under the terms of their ESEA flexibility waivers, these states must identify schools as "priority" or "focus" schools based only on their math and ELA test scores and, in some cases, graduation rates. However, many have proposed using broader measures to inform schools and the public about progress on other areas of learning and performance they care about. Several have indicated a desire to include these more cen-

trally in the accountability system. Ideally, such indicators of school performance would be directly tied to a process by which critical resources are allocated to address school and student needs, as is now the case in California (described earlier).

As an example of expanded measures for evaluating schools, in 2011,Wisconsin replaced the Adequate Yearly Progress system with a multiple-measure accountability index comprised of student achievement, student growth, achievement gaps, and an indicator of "On-Track to Graduation and Postsecondary Readiness" as measured by graduation rates, attendance rates, and ACT participation and performance, as applicable for all students and subgroups.[19] The system takes into account other factors, including test participation, absenteeism, and dropout rates. Wisconsin is considering future inclusion of additional measures, such as science proficiency and postsecondary enrollment.

Oregon's ESEA waiver redesigned the Oregon Report Card for schools and districts to incorporate multiple measures, including academic achievement, academic growth, and—for high schools—graduation rates, all displayed by subgroup.[20] While not currently considering school climate data a formal part of the accountability system, the Oregon Department of Education recently administered a statewide survey of public school teachers and administrators to gather information on how educators perceive their teaching and learning conditions and school climate. The 2014 Teaching, Empowering, Leading, and Learning (TELL) Oregon Survey hopes to deliver insights that can impact evidence-based policymaking as well as state and local decisions that improve student outcomes and teacher retention.[21]

Illinois's school rating system also includes the potential for schools to earn bonus points for strong results on a school climate survey. Illinois will also include English language proficiency exams in its new accountability system, thereby increasing school accountability for the performance of English learners. The state will also include science and ACT exams as a measure of college readiness for high school students.[22]

New Mexico's accountability index includes student achievement and growth, graduation rate, attendance, and college and career readiness. The state places extra focus on the growth of the lowest performing students by giving schools as much credit for the growth of the bottom quartile as for the growth of the top three quartiles. In New Mexico's ESEA waiver, school ratings include a student survey that measures opportunity to learn. The state also offers schools bonus points for strong student and parent engagement.

Oklahoma's approved accountability system uses parent and community engagement and school culture indicators as part of school ratings. Schools can earn bonus points for high scores on a school climate survey as well as high parent/community volunteer hours.

Multiple measures can provide a better accounting of what schools are doing and with what results. These broader indicators of school performance may help draw attention to areas of growth and need that can direct investments and improvement efforts. Whether educators and policymakers take these next steps will influence the extent to which schools actually make progress in better educating students. For accounting to be translated into genuine accountability, states and districts need processes by which they figure out what schools need and then make the investments of resources and expertise that will enable educators to act on this knowledge.

In addition to providing adequate and equitable resources to schools through the state funding system, resource accountability may include efforts to provide wraparound services for students who live in low-income communities to ensure early childhood learning, health services, and before- and after-school supports that level the playing field. Resource accountability can also include specific additional investments for schools found to be struggling. In many cases, these initiatives are designed to build professional capacity to teach and support students effectively, as described in the next section.

Professional Capacity and Accountability

One way in which indicators can be translated into actionable ideas for improvement is by combining them with a qualitative analysis of what a school is doing—and how it might improve—conducted by experts. Much like the inspectorate process in many other countries, School Quality Review processes have evolved in some parts of the United States, combining analysis of data with on-site review by expert educators, often accompanied by peer review from inside or outside the school.

Analyzing teaching and school practices to evaluate the extent to which they represent a professional standard of instruction and care is a key element of enforcing professional accountability for practice. Because of the evidence that School Quality Review processes enhance the professional knowledge of practitioners who are involved, we also include them here as a component of professional capacity-building. In systems that add ongoing expert support for school improvement to the review process, this capacity-building element is even stronger.

Evaluating, supporting professional practice through school quality reviews

During the 1990s, New York state developed a School Quality Review (SQR) with the assistance of David Greene, one of Her Majesty's Inspectors from Great Britain. The review began with a school self-assessment that provided a foundation for a visiting team of educators from other schools guided by an expert inspector using protocols that directed attention to the areas of school operations to be evaluated, with a strong focus on teaching and learning. The review examined student work as well as instruction in classrooms. Similar reviews were developed in Chicago, California, and Rhode

Island, among other places. Though discontinued at the state level during a round of budget cuts, a version of the SQR remained in New York City and evolved over time, and continues today.

The New York Quality Review involves 2- or 3-day school visits by experienced educators to each NYC school.[23] The external evaluator visits classrooms, speaks with school leaders, and uses a rubric to evaluate how well the school is organized to support student achievement. A Quality Review rating is then given to each school along with a report that is published on its DOE website.

Under its ESEA waiver, New York state engages a somewhat different diagnostic process to support low-performing schools and districts using a program of Distinguished Educators. These highly effective educators are appointed by the commissioner to assist schools and districts whose prior intervention efforts have failed. These educators "provide an intensive review of district and school systems, structures, operations, and facilities and develop an action plan; assess the district's capacity to promote and support teaching and learning within all schools in the district; work with district administration and the board of education to review data, analyze district and school structures, plan for improvement, and assist in targeting district priorities; facilitate increased student performance across the district; and recommend administrative and operational improvements to strengthen systems."

Kentucky established a Program Review system to assess the quality of programs in Arts & Humanities, Writing, and Practical Living and Career Studies.[24] Program Reviews are conducted internally at the school level three times a year by staff, parents, students, and relevant community members. An annual external review at the district level is then conducted at the end of each school year whereby district review teams are able to request and review Program Internal Review reports prepared by schools throughout the year. Kentucky also engages in a highly regarded diagnostic review process of struggling schools and districts using the AdvancED assist technology, which has coupled a new form of accreditation with follow-up services to support school improvement.

Ohio conducts School Improvement Diagnostic Reviews (SIDRs) for schools identified as underperforming based on test data.[25] SIDRs are conducted by an external team of experienced and skilled reviewers who follow a standard protocol for collecting evidence to diagnose a school's strengths and weaknesses. SIDR teams are responsible for making prioritized recommendations that are presented to the school several weeks later in a diagnostic report. Like Ohio, as part of their ESEA flexibility waivers, a number of states are doing diagnostic review for at least some of their schools. These states include Arkansas, Florida, Illinois, Minnesota, New Jersey, Oklahoma, and Wisconsin.

Supporting school improvement by sharing expertise

As part of its new accountability system, California has created the California Collaborative for Educational Excellence (CCEE). The CCEE will mobilize expertise in the state to help districts improve the quality of teaching and school leadership, and meet the needs of special populations (English learners, special education students, students at risk of dropping out). It will offer particularly intense assistance to districts or schools that are struggling to meet the goals established in the Local Control and Accountability Program, but its services will be available to schools and districts upon request. The collaborative will sponsor a system of review by expert educators and peers that can help build a learning system within the state to stimulate the transfer of knowledge and best practices and encourage innovation, experimentation, evaluation, and adaptation. CCEE will not only strengthen the state's capacity to assist schools and districts that need help, but also validate and share information about effective practices.

Pairing highly successful schools with other schools needing support is another means of helping schools share expertise, which has been highlighted in studies of Shanghai's extraordinarily successful school system. This strategy has been taken up by the California CORE districts, which pair high- and low-performing schools to share best practices, and help teachers at these schools work together to learn from each other. Massachusetts and Tennessee also pair high-growth schools with low-performing schools to share best practices.

Supporting educator capacity and accountability

The heart of a professional accountable system is a set of elements that ensures that educators are carefully selected, receive a high-quality preparation that enables them to acquire essential knowledge and skills, are licensed based on useful evidence of effectiveness, supported through high-quality induction and professional learning opportunities, and make sound personnel decisions—including opportunities for advancement that support further sharing of expertise—through thoughtful evaluation, supervision, and career ladders. Professionally accountable systems also ensure that well-qualified educators are readily available to all students across the state, which requires attention to recruitment incentives, including service scholarships, and adequate and equitable salaries and working conditions that provide motivation to stay.

Although the nation as a whole has lost ground on this agenda during recent years of federal and state budget cuts, a number of states have taken substantial steps toward creating an integrated set of professional supports and requirements. For example, California has long had some of the most rigorous standards for entering teacher education in the nation, with nearly all candidates preparing at the graduate level, and examinations of academic skills and subject matter knowledge required for entry. The state also launched the nation's first performance assessments of teaching for licensure some years ago. California was also the first state to offer a state-funded multiyear induction program for beginning teachers. It has recently added administrator performance as-

sessments and a required induction program for administrator licensing, as well, while overhauling its standards for teacher and administrator preparation.[26]

The new preparation standards require deeper knowledge of how to teach English learners and other students with special needs, as well as content pedagogical knowledge that incorporates the Common Core State Standards. A new accreditation system will enforce stronger standards and attend to program outcomes by collecting and reporting common data across programs—such as graduate and employer evaluations of program quality, pass rates on teacher performance assessments, and entry and retention rates in teaching—and using these to target programs for scrutiny that appear to be struggling.

When California enacted the CCSS, it allocated $1.25 billion for professional development for educators, and it is developing a range of curriculum and learning resources to support districts in this work. The state is the first in the nation to authorize and fund Peer Assistance and Review Programs to strengthen teacher evaluation statewide, and it has a long-standing statute requiring the use of teacher observations and student learning evidence in evaluations. It is now supporting districts by documenting and disseminating model programs that can share expertise across the state.

Delaware has recently raised the entry and exit requirements for teacher preparation and focused more attention on the clinical preparation candidates receive. Under SB 51, candidates must now have a 3.0 GPA or pass an academic skills test to enter teacher education. To exit, they must pass a more rigorous test of content knowledge and demonstrate effective teaching through a performance assessment.[27] Teacher candidates must participate in ongoing residency experiences that include working with a cooperating teacher, participating in parent/teacher conferences and professional learning communities, and teaching students while being observed by their mentors.

Delaware's new teachers and administrators receive support and mentoring. Delaware is one of only three states that requires and funds multiyear new teacher induction and makes program completion a requirement for licensure advancement. It also is one of only five states to require 3 years of induction support. The state provides funding for mentors for beginning teachers[28] and for beginning principals. A Delaware Leadership Academy at the University of Delaware offers mentoring and professional learning opportunities for principals and other school leaders.[29]

The Delaware Department of Education maintains ongoing professional development opportunities for teachers through a set of approved professional development clusters; through subject matter networks like the Delaware Reading Project, Writing Project, Science Coalition, Technology Partners; and through ongoing professional learning opportunities in areas like Response to Intervention and Positive Behavior Supports. It has recently launched an initiative led by a group of accomplished teachers across the state to develop materials and supports for job-embedded professional development around the Common Core State Standards.

The state has leveraged its evaluation system to retain effective teachers and principals through the Delaware Talent Cooperative, which provides retention awards to highly effective teachers and leaders willing to work and stay in high-need schools.[30] It has also leveraged its evaluation system to inform teacher and principal preparation and development through a new Evaluation Report System database.[31]

Massachusetts has also worked to create a comprehensive system of supports and requirements for educator knowledge and skills, with high standards for entry implemented through a series of assessments of academic skills and subject matter for teacher entry and licensing; strengthened requirements for program approval; required induction programs offered by trained mentors for both beginning teachers and administrators;[32] and recent initiatives to implement performance assessments for licensure for both teachers and administrators.

The state offers incentives for academically able candidates to prepare for teaching through a tuition waiver for aspiring teachers already in college who maintain a 3.0 grade point average and commit to teaching in a shortage field for 2 years in Commonwealth schools, along with a scholarship program, much like the highly successful North Carolina Teaching Fellows program, which attracts qualified high school students to the teaching profession by providing 4-year tuition and fees scholarships.[33]

Once in the profession, all educators maintain an individual professional development plan, and the state sponsors and funds a wide range of professional learning opportunities. The department offers free professional development institutes for teachers and administrators during the summers, focusing on understanding learning standards, promoting quality instructional practices, and helping educators develop an understanding of high-quality curriculum within subject matter fields. The state also encourages and enables teachers to access learning opportunities from universities, districts, and other sources, as well as job-embedded opportunities, such as mentoring, peer coaching, taking and offering seminars, or collaborating on new curriculum units, all of which can help fulfill recertification requirements and promote ongoing learning.[34]

Massachusetts's new teacher evaluation process is tightly tied to these learning opportunities. One of the more sophisticated in the nation, it draws on evidence of teaching practice from observations, staff, and student feedback; teachers' professional contributions; and multiple sources of evidence about student learning in a judgment system that is tied to goal-setting and professional learning.[35]

Conclusion

We offer these ideas about a new paradigm for accountability in the spirit of beginning a conversation that might ultimately result in a policy framework with the potential to allow the United States to move forward in its aspirations to educate all students for the demands of the world they are entering. We recognize that considerable discussion and debate will be needed before a new approach can take shape, and that states will differ in the specific approaches that fit their contexts and political cultures.

Nonetheless, we believe it is imperative to get this national discussion started, as the only current consensus is that our current system is not adequate to meet the needs of our schools and children, especially those in increasingly under-resourced communities. We believe that a new conception of accountability can help the nation meet its aspirations for preparing college- and career-ready students by:

- developing assessments that are more focused on 21st century learning skills and used in ways that support improvement in teaching and learning;
- creating stronger, more multidimensional ways of evaluating schools and more sophisticated strategies for helping them improve;
- addressing the opportunity gap that has allowed inequalities in resources to deprive many students of needed opportunities to learn; and
- developing an infrastructure for professional learning and accountability (e.g., higher quality preparation, professional learning, evaluation, and career advancement for individuals, plus sharing of expertise across schools) that allows educators to acquire and share the knowledge and skills they need to enable students to learn.

The gauge of a new system should be the outcomes it enables. True accountability should allow schools to be both responsible for high-quality professional practice and responsive to students' needs within the context of their families and communities. An effective accountability system should give students, parents, and governments confidence that schools are focused on what matters most and capable of helping each child connect to a productive future.

Endnotes

[1] Much of this research is summarized in Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York: Teachers College Press.

[2] Conley, D. (2013). *Getting ready for college, careers, and the Common Core: What every educator needs to know*. San Francisco: Jossey-Bass.

[3] Council of Chief State School Officers. (2014). *Recommendations from the CCSSO Accountability Advisory Committee: A vision for improved education accountability systems*. Washington, DC: Author. http://www.ccsso.org/Documents/CCSSO-Accountaiblity%20Advisory%20Committee%20Final%20for%20Website.pdf

[4] Paul Leather, personal communication, September 3, 2013.

[5] This section draws in part on a report by the Center for American Progress and the Council of Chief State School Officers. (2014). *Next generation accountability systems: An overview of current state policies and practices*. Washington, DC: Center for American Progress.

[6] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://legiscan.com/KY/bill/HB424/2014

[7] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://sos.ri.gov/documents/archives/regdocs/released/pdf/DESE/6433.pdf

[8] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.maine.gov/doe/proficiency/about/proficiency-based.html

[9] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.mainelegislature.org/legis/bills/getPDF.asp?paper=SP0439&item=1&snum=125

[10] California Department of Education. *Local Control Funding Formula Overview*. http://www.cde.ca.gov/fg/aa/lc/lcffoverview.asp

[11] See Guryan, J. (2001). *Does money matter? Regression-discontinuity estimates from education finance reform in Massachusetts*. Cambridge: National Bureau of Economic Research.

[12] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to https://education.ohio.gov/getattachment/Topics/Finance-and-Funding/State-Funding-For-Schools/Financial-Reports/District-Payment-Reports/PASS-Summary-FY10-11v2.pdf.aspx

[13] Herman, J. (2013). *School-finance reform: Inspiration and progress in Colorado*. Washington, DC: Center for American Progress. http://www.americanprogress.org/issues/education/report/2013/06/03/64996/school-finance-reform-inspiration-and-progress-in-colorado/

[14] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.nmlegis.gov/lcs/lfc/lfcdocs/finance%20facts%20public%20school%20funding%20formula.pdf

[15] Center for American Progress and the Council of Chief State School Officers. (2014). For further details for Baltimore, go to http://www.baltimorecityschools.org/cms/lib/MD01001351/Centricity/Domain/74/FY14-AdoptedBudget-CompleteBook.pdf. For New York, see http://schools.nyc.gov/AboutUs/funding/overview/default.htm. For San Francisco, see http://reason.org/files/weighted_student_formula_sanfrancisco.pdf

[16] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.baltimorecityschools.org/cms/lib/MD01001351/Centricity/domain/6625/pdf/20120316-FSF101-FINAL.pdf; http://reason.org/files/weighted_student_formula_sanfrancisco.pdf

[17] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www2.ed.gov/policy/eseaflex/approved-requests/corerequestfullredacted.pdf

[18] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www2.ed.gov/policy/eseaflex/approved-requests/corerequestfullredacted.pdf

[19] Center for American Progress and the Council of Chief State School Officers. (2014).

[20] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.ode.state.or.us/news/announcements/announcement.aspx?=9408

[21] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.ode.state.or.us/news/announcements/announcement.aspx?ID=9578&TypeID=5

[22] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.americanprogress.org/wp-content/uploads/issues/2012/07/pdf/nochildwaivers.pdf

[23] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://schools.nyc.gov/Accountability/tools/review/Process/Overview/default.htm

[24] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://education.ky.gov/curriculum/pgmrev/Documents/Program%20Review%20Guide%20Section%201.pdf

[25] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://education.ohio.gov/getattachment/Topics/School-Improvement/Race-to-the-Top/Resources-and-Reports/RttT-Monthly-Quarterly-Reporting-November-2013.pdf.aspx

[26] Commission on Teacher Credentialing. www.ctc.ca.gov/

[27] U.S. Department of Education. (2014, March). *Delaware's teacher preparation is setting a higher bar*. https://www.ed.gov/edblogs/progress/2014/03/delawares-teacher-preparation-is-setting-a-higher-bar/

[28] New Teacher Center. http://www.newteachercenter.org/state/delaware

[29] Darling-Hammond, L., Meyerson, D., LaPointe, M., & Orr, M. (2009). *Preparing principals for a changing world: Lessons from effective school leadership programs*. San Francisco: Jossey-Bass.

[30] U.S. Department of Education. (2014). *Setting the pace: Expanding opportunity for America's students under race to the top*. Washington, DC: U.S. Government Printing Office. http://www.whitehouse.gov/sites/default/files/docs/settingthepacerttreport_3-2414_b.pdf

[31] Center for American Progress and the Council of Chief State School Officers. (2014). For further details, go to http://www.americanprogress.org/wp-content/uploads/issues/2012/07/pdf/nochildwaivers.pdf

[32] New Teacher Center. (2011). *State policy review: Teacher induction*. http://www.newteachercenter.org/sites/default/files/ntc/main/pdfs/StatePolicyReviews//Massachusetts.pdf

[33] Massachusetts Department of Higher Education: Office of Student Financial Assistance. (2014). *Incentive program for aspiring teachers program*. http://www.osfa.mass.edu/default.asp?page=aspireteacherswaiver

[34] Massachusetts Department of Elementary and Secondary Education. (2000). *Professional license renewal: Guidelines for Massachusetts Educators*. http://www.doe.mass.edu/recert/2000guidelines/appb.html

[35] Massachusetts Department of Elementary and Secondary Education. (2014). *Educator evaluation*. http://www.doe.mass.edu/edeval/

Appendix

Accountability Pillar Overall Summary
Annual Education Results Reports - Oct 2008
Province: Alberta

Alberta EDUCATION

Goal	Measure Category	Measure Category Evaluation	Measure	Province			Measure Evaluation		
				Current Result	Prev Year Result	Prev 3 yr Average	Achievement	Improvement	Overall
Goal 1: High Quality Learning Opportunities for All	Safe and Caring Schools	Good	Safe and Caring	85.1	84.2	83.9	High	Improved Significantly	Good
	Student Learning Opportunities	Good	Program of Studies	79.4	78.5	77.8	High	Improved Significantly	Good
			Education Quality	88.2	87.6	87.1	High	Improved Significantly	Good
			Drop Out Rate	5.0	4.7	5.0	Intermediate	Maintained	Acceptable
			High School Completion Rate (3 yr)	71.0	70.4	70.0	Intermediate	Improved Significantly	Good
Goal 2: Excellence in Learner Outcomes	Student Learning Achievement (Grades K-9)	Issue	PAT: Acceptable	75.8	75.9	76.7	Low	Declined Significantly	Concern
			PAT: Excellence	19.6	19.4	19.3	Intermediate	Improved	Good
	Student Learning Achievement (Grades 10-12)	Acceptable	Diploma: Acceptable	85.0	85.4	85.2	Intermediate	Declined	Issue
			Diploma: Excellence	22.3	23.3	23.1	High	Declined Significantly	Issue
			Diploma Exam Participation Rate (4+ Exams)	53.6	53.7	53.2	Intermediate	Improved	Good
			Rutherford Scholarship Eligibility Rate	38.2	37.2	35.4	High	Improved Significantly	Good
	Preparation for Lifelong Learning, World of Work, Citizenship	Good	Transition Rate (6 yr)	60.3	59.5	57.1	High	Improved Significantly	Good
			Work Preparation	80.1	77.1	76.4	High	Improved Significantly	Good
			Citizenship	77.9	76.6	76.2	High	Improved Significantly	Good
Goal 3: Highly Responsive and Responsible Jurisdiction (Ministry)	Parental Involvement	Good	Parental Involvement	78.2	77.5	77.2	Intermediate	Improved Significantly	Good
	Continuous Improvement	Good	School Improvement	77.0	76.3	75.7	High	Improved Significantly	Good

Goal	Measure Category	Measure	Province		
			Current Result	Prev Year Result	Prev 3 yr Average
ACOL Measure	ACOL Measure	Satisfaction with Program Access	69.2	68.2	68.0
		In-service jurisdiction Needs	80.4	78.8	77.8

Notes:

1) Student Learning Achievement: PAT Values reported are weighted averages of PAT Acceptable and PAT Excellence results. Courses included: ELA (Grades 3, 6, 9), Math (Grades 3, 6, 9), Social Studies (Grades 6, 9), Science (Grades 6 only), French Language Arts (Grades 6, 9), Français (Grades 6, 9).
2) Student Learning Achievement: Diploma Exam Values reported are averages of Diploma Acceptable and Diploma Excellence results, weighted by the number of students enrolled in each course.
3) Overall evaluations can only be calculated if both improvement and achievement evaluations are available.
4) The ACOL measures are not evaluated as they are not part of the Accountability Pillar and are included only to enable inclusion in the AERR and 3-Year Education Plan reports.
5) Data values have been suppressed where the number of students is less than 6. Suppression is marked with an asterisk (*).

Stanford Center for Opportunity Policy in Education
http://edpolicy.stanford.edu
@scope_stanford

scope
Stanford Center for
Opportunity Policy in Education