Transforming Professional Learning in Kentucky: Meeting the Demands of the Common Core State Standards

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Foreword

As Kentucky continues to lead the nation with its College and Career Ready agenda, it cannot deny the critical role that professional learning plays. Being selected by Learning Forward as the Demonstration State for Implementing the Common Core Standards has enabled us to elevate the discussion related to professional learning and begin to analyze what steps are needed to support educators becoming more effective in their teaching and learning practices.

This report from Linda Darling-Hammond and SCOPE offers a look into the professional learning policy landscape of our state. Several recommendations, in particular, deserve our immediate attention as we seek to ensure that all students have access to highly effective teaching, learning, and assessment practices that will prepare them for college and career success.

1. Creating a 'culture change' around professional learning—particularly with use of time during and beyond the school day; accessing/capitalizing on internal expertise; and focusing more on learning than on complying with a time requirement for PD hours;
2. Ensuring there is coherence and integration of professional learning systems—between higher education and K-12 (transition, remediation, preparation, professional learning/recertification);
3. Developing a clear vision of professional learning and growth that translates into practice for all (ultimately, ensuring equity in students' access to effective teachers, leaders, and learning experiences).

As I visit schools across the state and talk to educators, I am impressed by the high expectations Kentucky teachers are setting for their students and themselves and the innovation they are undertaking in their classrooms. Learning is a lifelong process for us all. We must ensure that the policies that are in place in the Commonwealth are aligned with current research and support teachers and leaders to be effective. Addressing these recommendations is a necessary first step in that process.

Terry Holliday, PhD
Commissioner of Education, Kentucky

Transforming Professional Learning in Kentucky:
Meeting the Demands of the Common Core State Standards

> Sadly there is little in-depth or long-term professional development available now for teachers and principals to meet the Common Core State Standards. As it stands now, too few states use their regulatory and policy-making authorities to advance powerful visions and goals for professional learning; have comprehensive professional learning plans and infrastructures to address current priorities; have a coherent strategy for managing and leveraging the variety of external assistance providers operating in the state; nor can account for the impact of resources and time allocated toward profession learning. Most states continue to support isolated professional learning programs that lead to fragmentation of efforts and impact.
>
> -- Learning Forward (2012)

The Commonwealth of Kentucky is one of 46 states that have adopted the Common Core State Standards (CCSS), an ambitious framework seeking to ensure that all students, when they graduate from high school, will be successful in college and in their careers. Fortunately, Kentucky has taken a proactive role in assessing the professional development and supports that will be needed to implement the CCSS, and has already begun many efforts to support implementation.

In this report, we present our findings from a review of Kentucky's professional development policy system, in light of the state's efforts to implement more ambitious Common Core teaching and learning reforms. In conducting our review we observed and participated in two of the state's Professional Learning Task Force meetings, and examined over 30 documents, and reports and interviewed 15 local and state administrators. We also engaged a small group of the state's National Board Certified Teachers, who currently are testing Common Core lesson templates and assessment tools, in providing input.

We outline here some of the features of the current infrastructure for professional development in the state. We describe strategies that are underway and offer initial recommendations for approaches that may enable the state to move forward with assurance toward strong implementation of the CCSS and overall improvement of teaching, particularly for those students who are most vulnerable to school failure.

Our report, built from Kentucky educators' experiences and perceptions as well as our understanding of high quality professional development, is not intended to be the definitive word on the state's policy infrastructure for the Common Core Standards. However, we intend this document to inspire discussion, brainstorming, and feedback in an iterative process that can strengthen the recommendations and move the Professional Learning Task Force toward a concrete plan of action.

The Requirements of the Common Core State Standards

Today, many parents are very familiar with the kinds of standardized tests schools use to assess their children's achievement levels. They look very much like the ones they took: multiple-choice tests calling for the best answer out of five, a discrete response to be remembered from facts tucked away or guessed using test-taking strategies.

The next generation of assessments, built from the CCSS, will be very different. These new assessments will not simply measure whether students can identify a right or wrong answer, but whether or not they possess 21st century skills like problem-solving, critical thinking, and the ability to communicate and defend ideas.

The assessments will demand deeper learning of students and more sophisticated teaching by teachers. If Common Core standards are to be well-taught, schools will need to figure out how to develop curriculum and teaching strategies that are much different than those needed for current expectations and tests. In turn, universities and districts will need to overhaul approaches to pre-service preparation and professional development.

In the past Kentucky has included performance assessments in its battery of tests, although these have been scaled back over the years. And the Writing Portfolio was just recently terminated as a required assessment. The good news is that there are still a large number teachers in Kentucky with experience and expertise in scoring and teaching toward such assessments, so the task in this state will be somewhat less challenging than in states without such experience to draw upon. Nonetheless, Kentucky will have much to do to support the kind of widespread professional learning that will ensure that all educators, teachers and principals, novice and experienced, in large and small districts across the state -- have the tools to succeed in this challenging work.

In establishing 11 professional development standards, the state has made it clear that teachers should be supported in sustained and systematic ways that are aligned with the school or district improvement plan or (their) individual professional growth plans, as well as Kentucky's student learning, teaching, leadership, and school improvement standards.[1] The standards see professional development as a continuous process of learning through consciously constructed

relevant job-embedded experiences that are integrated into the day-to-day work of teachers, administrators, and others to support improved practices. These professional learning experiences are intended to be continuous, collaborative, culturally responsive, and classroom-focused, as well as inquiry-based, research-based, and results-driven.

This ambitious vision aligns well with what is known about high-quality professional development and the standards developed by Learning Forward.[2] And Kentucky builds on a strong foundation of previous work. The current challenge is to build in the incentives and capacity building strategies that will allow teachers to meet the needs of their students and the Common Core standards.

Kentucky's Efforts to Date

Once the CCSS were adopted, it did not take long for Kentucky policymakers to act. Senate Bill 1 (SB1), passed in 2009, sets the stage for the Commonwealth to "transform (its) education system to meet the needs of 21st-century students"[3] and to make sure teachers are ready to teach so all students can apply knowledge from different disciplines through reading, writing, speaking, and listening as well as in solving real-world problems. While a 2011 task force, established by Governor Steven L. Beshear, pointed to a number of initiatives to accelerate college- and career-readiness learning opportunities for all students, SB1 set the stage for the state to take teacher professional learning more seriously in implementing the Common Core.

The Kentucky Department of Education (KDE) responded quickly to the new mandates and worked diligently and under an urgent and compressed time line with district administrators to get a good model in place. Importantly, the leaders of KDE as well as the Educator Professional Standards Board (EPSB) and the Council on Postsecondary Education (CPE) have developed and refined a unified message and have orchestrated an outreach strategy to their respective constituents. Kentucky quickly joined the Council of Chief State School Officers' Partnership for Next Generation Learning, creating an Innovation Lab Network with six other states in order to "create a personalized system of education that engages and motivates every student to be prepared for life, meaningful work, and citizenship."[4]

KDE has deepened its ties to regional co-ops to build district capacity for higher quality professional development. It also created the Continuous Instructional Improvement Technology System (CIITS) to offer teachers a searchable online database linking the state's new core academic standards with high-quality multi-media instructional resources. Additionally, the recent passage of SB 1 prompted renewed collaboration between higher education and school districts as well as more focused professional development offerings for teachers. As a result, higher education faculty are participating in leadership networks, and working with

classroom teachers and administrators to learn about the CCSS and to consider changes in classroom instruction. Finally, the EPSB has revised its Kentucky Teacher Internship Program (KTIP), both in terms of novice teacher expectations and what they are expected to know about the CCSS before they are fully licensed.

Components of the Professional Development Landscape

A large number of interlocking professional development structures are now in place, renewing opportunities for teachers to learn from each other and teach more effectively. As we show in Exhibit 1 below, the state has a variety of networks and collaboratives, on-line and other resources, and institutional providers of professional learning to draw upon.

The question is how to create a policy infrastructure that will ensure the quality and reach of these resources to all who need to tap them and that will glue these initiatives together into a coherent, seamless set of supports. As we discuss this question, we take a quick glance back at the professional development infrastructure Kentucky began to build two decades ago.

Kentucky Department of Education

Leadership Networks in each **Region** were created in response to **Senate Bill 1** (2009) to build the capacity of each district. The move towards CCSS uses these same established regions in communicating information and providing PD during the move to CCSS. Central to the Leadership Networks is "capacity building" and "collaboration to create high quality models, resources and tools to be shared statewide."

State Resources

- ✓ **CIITS**: integrated online system with standards, instructional materials, lesson planning, assessments, student data, and PD
- ✓ **Blackboard**: agendas, resources, handouts from each regional CLN meeting are posted to alleviate competition between co-ops and to share best practices and new ideas
- ✓ **CC360:** developed in conjunction with School Improvement Network provides products and resources around implementation of CCSS. Available to all educators through CIITS.

Collaboratives for Instructional Design and Support

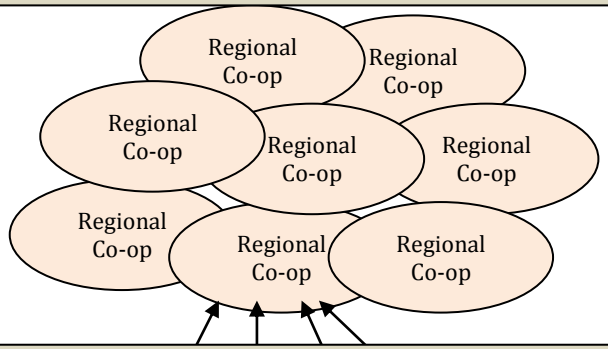
- ✓ LDC – Literacy Design Collaborative (ELA CCSS)
- ✓ FAL – Formative Assessment Lessons (Math CCSS)
- ✓ UDL – Universal Design for Learning is the framework for guiding educational practice. KDE partners with various regional co-ops to provide support to specific districts on their school improvement efforts.

Task Forces

- ✓ Professional Learning Task Force w/ Learning Forward (CCSS & PD)
- ✓ Next Generation Learning (CCSS & Quality Core)

Regional Leadership Networks

Network meetings provide PD to teacher leaders, school-level leader, and district-level leader reps during the year. Field Specialists provide support to districts in each region between meetings.



Outside PD Partnerships & Providers (Organizations & Higher Education Institutions)

These partnerships are based on established regional affiliations and relationships and not mandated or managed by KDE. Partnerships vary from region to region and district to district.

Note: The **P-20 Leadership Networks** in KY consist of the Content Leadership Networks, Instructional Support Leadership Networks for school and district level leaders , Superintendents Network, Higher Education Networks.
Source: KDE, July 2010

Regional Network Participants (Representatives)

Each district chooses representatives from its schools including: teacher-leaders (ELA & Math), administrators, guidance counselors, and instructional coaches to attend Regional Co-op meetings. After Co-op meetings, representatives bring information back to District Leadership Teams to "scale up" PD which is then offered in schools.

District | District | District | District

Elementary Schools | Middle Schools | High Schools

"PD is driven by district needs as identified in audits, school report cards, KDE data-driven reports and through education policy and national agendas. PD is also a response to compliance and education reforms….There are some common offerings and foci and other divergent and more content-specific offerings. Teachers often report that PD is district-driven rather than site-based. Site Based Decision Making Councils (SBDM), part of KDE Reform Act legislation, also weigh in on and help shape PD priorities and offerings."

- *University Professor & Teacher*

The 1990s: KERA and its Effects

In the early 1990s, as a result of the Kentucky Education Reform Act (KERA), the state made a noteworthy investment in teachers' learning, with legislation supporting teachers' professional development at the rate of $23 per K-12 student—up from just $3 per student just a few years before. At that time, this revenue stream amounted to $14.25 million to schools and districts, or slightly less than 2 percent of the state education budget. With KERA and its focus on school site decision-making, there was potential to revolutionize teachers' professional development. In some ways, the state began to do so. Betty Lou Whitford, former University of Louisville professor, who conducted a number of studies of KERA and its impact on teacher and student learning, told us:

In the early 1990s, Kentucky had a lot of wonderful professional development. Teachers spent time learning to write and score assessments, look at the problems their students were having, and jointly design new lessons.

In 1999, a team of researchers found powerful effects of the new student assessment system, known as KIRIS. Hilda Borko and her team concluded:

> "Mathematics and writing portfolios were undoubtedly one of the most innovative components of KIRIS. Students created their portfolios during their ongoing instructional programs, and teachers were responsible for overseeing student efforts and scoring the completed portfolios. . . . The Division of Portfolio Initiatives utilized a trainer-of-trainers model to provide face-to-face professional development for teachers across the Commonwealth."[5]

But as Whitford also told us, some of the momentum of yesterday's high-quality assessment training for Kentucky's teachers, which mirrors many of Learning Forward's Professional Learning Standards today, was undermined by the context of high-stakes accountability. She noted:

> "Lots of good things were lost when assessment and accountability became king. Although schools supposedly had more control over professional development, local administrators looked to the state for programs that would ensure that teachers helped kids do well on the tests."

Thomas Guskey, one of nation's foremost experts on professional development and a professor at the University of Kentucky, emphasized this point:

> "With KERA, the state was putting in much better student assessments–on-demand tests, portfolios, and performance events. We had some of the nation's leading experts, like Grant Wiggins and Pat Forgione, helping us. The professional development was having a deep impact on the way teachers went about their teaching. But then the professional development got way too mixed up with high

stakes accountability. And since then, every time the state implements new forms of professional development to help teachers teach to the common standards, teachers say, 'this is fine, but show us the test.'"

Another influence of KERA was how governance was handled, including the introduction of school-based decision making councils by KRS 160.345. This decentralized decision making about many educational matters, creating both more opportunity for local engagement and more likelihood of variability in the local approaches, including professional development.

For all of these reasons, the resulting professional development landscape varied in terms of its utility to support teachers. As one experienced Kentucky administrator told us:

> "Even with KERA, much of the professional development teachers experienced was of the 'sit and get' variety. It was not embedded in practice or tied to what teachers needed. It was too fragmented."

2000-2008: The NCLB Era

Nationally, NCLB created an infusion of professional development funds in the early years, followed by a slowing of this funding and an increase in one-shot workshops rather than sustained professional development after 2004.[6] Although a toll was taken by the increased accountability focus that intensified under NCLB, the accompanying loss of some of the richer state and local assessments, and decreases in professional learning investments, Kentucky has managed to maintain a commitment to productive forms of student and teacher learning.

As of 2008, when the most recent Schools and Staffing Surveys were conducted, Kentucky was well ahead of other states in many areas of professional development. (See data in Appendix A.) For example:

- Beginning teachers had more access to support than their peers nationally. Fully 78.3% experienced an induction program and 89.7 % worked closely with a master or mentor teacher in their first year of teaching (as compared to 74% and 78%, respectively, of teachers nationally).

- Beginning teachers were also more likely to have common planning time (64.1% versus 55% nationally),and 78.2% experienced regular supportive communication with principal, other administrators, or department chairpersons. The overall number of supports new teachers reported was higher than the national average.

- Overall, teachers reported access to professional development in the previous year at rates above the national average in each of the following areas:

- Content of their subject area (89.2%); among these, 46.2% received 17 or more hours of this PD, suggesting a more sustained approach than in most states;
- Use of computers for instruction (74.8%);
- Reading instruction (66.8%);
- Classroom management (54.1%); and
- Teaching students with disabilities (50.5% over the previous three years).

Like other states, most professional development in areas other than content was of the workshop variety, lasting less than 8 hours overall. When teachers were asked to rank the usefulness of PD activities they attended in the last 12 months, Kentucky ranked at about the national average on all of the following foci: content area, use of computers for instruction, reading instruction, classroom management, and special education -- with ratings clustering between 2.7 and 2.9, or fairly useful, on the 4-point scale (1 = not useful and 4 = very useful).

One area stood out as less accessible to Kentucky teachers. They reported being less likely than others across the country to get professional development in teaching English learners (only 10% of teachers over the previous three years) and much less likely than others to find this professional development useful. This issue re-emerged in more recent surveys of teachers as one where there is a felt need for more high-quality professional learning experiences.

2010-2012: The Current Context

Over the last several years, under the leadership of Terry Holliday, the new commissioner of education, Kentucky is quickly renewing a reform focus on building capacity among teachers, albeit without the level of professional development funding previously available.

Currently, the state has used some of its Title II A and B, special legislative funds for the implementation of Senate Bill 1 (2009), and professional development funds to support its Leadership Networks and its new Professional Growth and Effectiveness System (PGES) for teachers and principals. The PGES is linked to the state's new *Characteristics of Highly Effective Teaching and Learning* framework,[7] which includes a reflection and planning process designed to be explicitly linked to professional learning plans for each teacher.

The framework is intended to create a common point of reference for discussing effective practices in teaching and learning by describing the role of the teacher and student in an exemplary instructional environment. Through Title II funds, the state's new evaluation framework will, as one administrator noted, have "some connections with PD, but not in a direct or statutorily recognized way."

The Kentucky Department of Education worked in teams to develop the Characteristics of Highly Effective Teaching and Learning as support focused on the instructional core. The teams looked at the research that establishes what the

characteristics are and they organized the characteristics around five components: learning climate; classroom assessment and reflection; instructional rigor and student engagement; instructional relevance; and knowledge of content. Each of these components is supported with a list of characteristics of effective teacher practice and student actions. The KDE encourages districts to use this information to develop shared understanding of effective practice through professional learning communities.

In our review, we discovered some evidence that such learning communities are being cultivated in at least some districts. We also uncovered a number of excellent professional development offerings, for example, the kinds of programs offered by the Kentucky Council of Teachers of Mathematics and the Kentucky Center for Mathematics, housed at Northern Kentucky University. We also found a number of school districts that have put into place new roles for teacher leaders.

The state has sought to infuse professional development in all activities that aim to improve schools. For example, among the nine Standards and Indicators for School Improvement,[8] Standard 6 refers specifically to professional development:

> **Standard 6 – Learning Environment –Professional Growth, Development & Evaluation:** "The school/district provides research-based, results driven professional development opportunities for staff and implements performance evaluation procedures in order to improve teaching and learning.

The standard goes into detail about the components schools are expected to put in place: professional growth plans, instructional capacity plans, staff development priorities and goals, personnel evaluations aligned to personal growth plans, and more.

The nine Standards and Indicators for School Improvement are also the organizing tool for cataloging professional development offerings in the state. All professional development programs sponsored by the Kentucky Department of Education, as well as external providers who voluntarily wish to participate, will be identified on the KDE PD/Training Opportunities website using the standards, program content, target grade levels and the targeted audience. The website "serves as a resource for educators seeking to improve their skills, achieve their goals, and help students learn." [9] This provides a clearinghouse of information, but does not provide quality control. The website notes, "Posting information on the bulletin board by the department shall not be viewed as an endorsement of the quality of any specific provider or program."

By regulation (KRS156.095 (4)), the task of evaluating professional development quality appears to be delegated to local districts. The department is called upon to "assist school personnel in assessing the impact of professional development on their instructional practices and student learning."

This same regulation, however, seeks to encourage the creation of a quality statewide program of professional development and provides some means for the department to help support districts. It calls for KDE to provide an annual training program for local

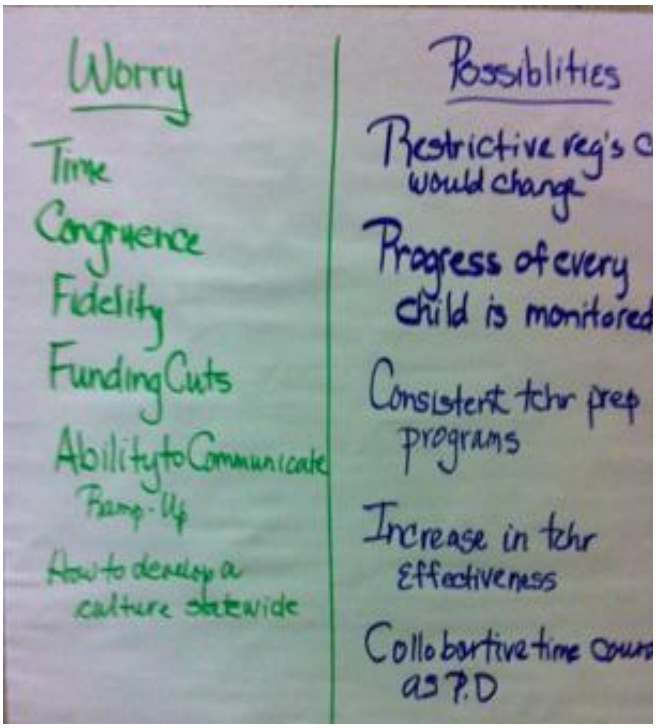
school district professional development coordinators and to provide or facilitate programs of professional development based on statewide needs, to supplement what is provided locally. KDE has undertaken a number of efforts to align and coordinate professional development.

These efforts have borne fruit in specific areas, such as the math and science content networks that were developed several years ago, and that provide the model for additional content networks. However, perhaps because of what one respondent called "the fragmentation of approaches and sources of funding," we also find many disconnects between policy and implementation that could undermine the state's ambitious efforts to create new learning opportunities for its 645,000 students. In interviewing the state's National Board Certified Teachers, they agreed that the professional development teachers experience is all "all over the map." One of them told us, "If you ask about professional development in Kentucky, you will get 174 different answers because there are 174 different districts."

When we asked a state education leader to describe the Commonwealth's professional development policy *infrastructure,* he lamented, "We really do not have one."

Issues On the Table

At a January, 2012, Professional Learning Task Force meeting, two small groups of Kentucky educators summed up, on a flip chart, both their worries and possibilities in implementing the Common Core.



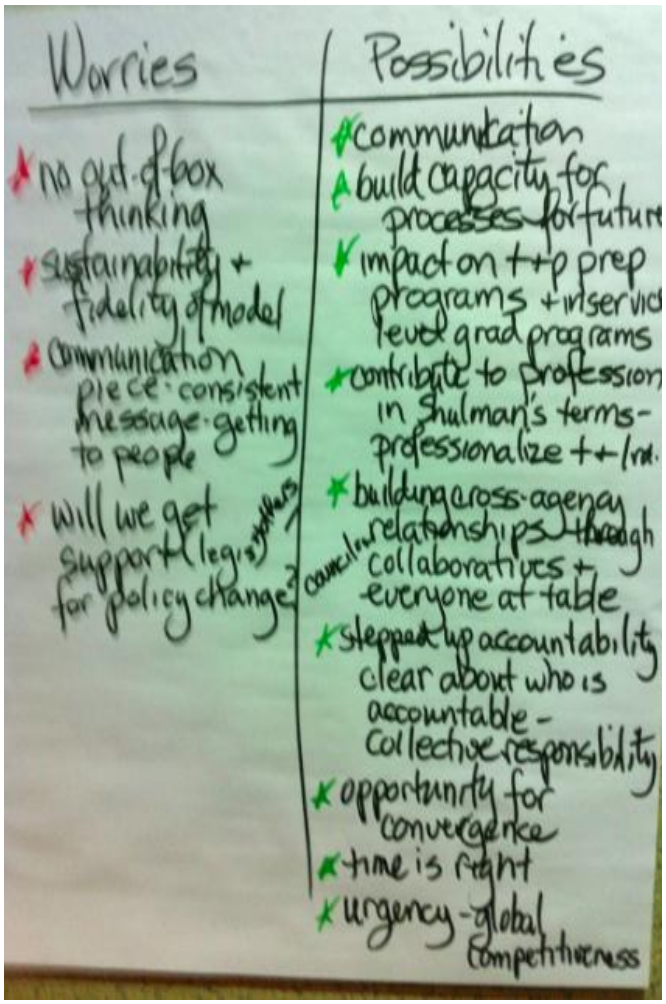


Exhibit 2: Professional Learning Task Force Perceptions

The concerns of funding, sustainability, communications about the new standards, and fidelity in implementing the standards and the professional development tools were prominent.

At the same time, in thinking about strategies for the future, the groups identified possibilities for changing policy and practice to:

- Further professionalize teaching;
- Develop more consistent (and presumably useful) teacher preparation and graduate programs for in-service learning;
- Allow job-embedded collaborative planning and learning time to count as part of required professional development units;
- Build cross-agency relationships and collective responsibility in the profession; and
- Create more convergence and coherence in educational efforts.

Professional development financing looms large. For example, over the last three years, the budget of the state's Education Professional Standards Board, which is independent of the KDE, has been reduced by 31 percent, although it has been charged with ramping up expectations of KTIP for the Common Core. Funding for professional development has been cut drastically and combined with two other areas into a single pot of money that can be used at the discretion of each school for professional development, textbooks, or extended school services. The total amount of money is less than what was once allocated for professional development alone. Schools may choose among the three areas. theoretically they could choose no money for professional development. The money selected for professional development is then divided into 65 percent to schools and 35 percent to the district for district-wide professional development needs. Districts often have few means for ascertaining professional development needs in schools.

There are deep concerns about how to find more time for teachers to create and use new instructional tools. Teacher leaders, who serve as ambassadors in the early stages of implementation, complete the work within their contract days. For them, other additional professional learning opportunities are provided in addition to the expected work they do as part of the Regional Leadership Networks. For other teachers, most districts have limited opportunities for shared work time within and beyond the school day to incorporate new practices.

New technological tools, including CIITS, can give teachers better and more timely data. Additionally, the CIITS team is completing development of the Professional Learning Component that will be launched summer 2012. However, there are substantial gaps in readiness to use these resources. The state has sound plans to build the content for CIITS, but we could not identify the strategy that will ensure that local districts use the resources. While schools of education are creating new, and much needed teacher leadership programs, we wonder how policies can support effective and efficient collaboration among them, rather than competition.

A number of people reported appreciating the state's longstanding policy requiring teachers to earn 24 hours of professional development annually because it provides incentives for professional learning. But because those professional development hours cannot be counted during the traditional workday, they often promote districts to offer one-shot workshops that are out of sync with the daily demands of classroom instruction, rather than job-embedded collaborative opportunities for learning.

This issue reminded us of the importance of paying attention to the culture of teaching and the images of teachers' work lives. One former top-level educator, who has served the state for decades, told us, "All too often legislators here in Kentucky think that if teachers are not teaching, they are not working." This

conception of teaching is not indigenous to the state; it exists across the nation. Policy cannot fix this problem, but it can help reframe how teaching is viewed and how teacher leaders are embraced and utilized in implementing the Common Core.

Finally, the challenge of orchestrating and leading a system that has many consciously decentralized elements in a period of high demand for change and learning with diminished financial capacity is a challenge, indeed.

Findings

> "We need to have the time and learning in place consistently across the state. Teachers need more time for professional learning. We need our teachers to be effective. It is all about teacher instruction, not programs. That's what will improve academic achievement and close the learning gap."
>
> -- a Kentucky school principal

Finding the Right Balance: From School to District to State

Kentucky has a long history of delegating professional development to districts, and from there to schools. By regulation of the Kentucky Board of Education, at least 65% of the funding that goes to districts for professional development must be passed on to schools. Prompted by the school finance court decision, the state put a strong emphasis on the building principal and site-based councils to identify professional development needs. While most districts have many offices offering training to teachers, schools have the lion's share of the funding. There is less clarity about how the state can exert leadership and support for meeting common needs across the state.

As a result, the state has had to quickly build new structures and relationships with districts in efforts to implement the Common Core. The 8 regional co-ops were not designed to serve as an intermediary between the state and 174 school districts in implementing CCSS, however we found some examples of how they are beginning to do so.

For example, the Ohio Valley Education Cooperative works monthly with principals, guidance counselors, and instructional coaches from across 13 districts. They are expected to share back what they learn with other staff in their schools. While the state's co-op structure has potential to serve as a powerful lever for moving teacher expertise from one school and district to another, they were never designed to do so. Each of the co-ops serves, more or less, in an advisory role to the state professional development system and is not designed as a cohesive organization of eight. Cultivating this capacity will take some creative support for, and perhaps some reshaping of, that system.

In addition, district leaders struggle with finding time to focus on the implementation of the Common Core when there is so much other stuff needed for them to cover for teachers based on the everyday needs of students. A district administrator told us:

> "You can lead a horse to water but you can't make it drink. The professional development is out there, but it's a matter of the district making sure that it gets to the classroom."

Our interviews revealed that the challenges of implementing the Common Core are often associated with a need for more extensively preparing district level administrators for the new roles they must play. As one state leader who works with local administrators told us:

> "There is a serious problem in many districts, with any number of disconnects among professional development, instructional leadership, and assessment. Sometimes the superintendent or chief academic officer just doesn't get the connection. Often it is because they've lived through so many changes in content standards and assessments, and they don't feel they have to change. In other cases, I think it may be that they are just afraid of this change."

A state administrator told us:

> "Superintendents who are newer, maybe only in their roles for 10 years or less, seem to have a more flexible mindset. The more experienced ones tend to see themselves just as managers. They run the district but sometimes really may not get as involved in working with teachers. It may be their dispositions. It may be that some have not been out of the classroom themselves for very long."

Another challenge is finding the right balance between state- and district-level coherence and school-level flexibility in serving teacher needs. The landscape of professional development is very complicated and not well glued together. Since the passage of SB1, the state has done a great deal to align Title II funds for professional development. However, there is very little accountability for the third-party providers that most districts use. In the early 1990s, Mary Ann Blankenship, now Executive Director of the Kentucky Education Association, called for a consumer's guide to professional development focused on informing school-based decision making councils. She noted:

> "Our idea was to create a guide for school councils in what makes good PD, questions to ask providers of PD, and how to integrate PD into the needs of the school and teachers. We also wanted to create a standard form that every provider of PD would complete, listing their experience, expertise and references. Our idea was to publish the guide (how to

select and also the provider listing) and use it as the basis of school council training.

> "As I recall, we got some significant push-back from providers about publishing their info. We also did not find a funding source to carry this forward beyond the conceptual stage. It was such interesting and important work that I was always sorry we did not pursue it."

In addition, it seems that much of the professional development teachers experience is funded through special grants, such as the GE Math and Science grant in Louisville. In the smaller, rural districts, organizations such as the Center for Teaching and Learning have contracts to provide professional development services for some things. While helpful, these arrangements create a patchwork that is not easy to understand or negotiate. Figuring out how to get the right professional learning opportunities to teachers is not easy in this context. As one administrator put it:

> "We lack the ability to articulate connected systems. Teacher evaluation and the Common Core as well as other reforms are all separate, and we don't know how those all fit together."

Finally, there is the pace of change, much of it dictated by the state legislature. One principal noted we are "moving too fast," but there also needs to be an "urgency for change." Another administrator claimed that teachers are asked to "do too much" and "cover too much content" This issue is highlighted in a recent Education Week article aptly entitled, *Building a Bumpy Road From K-12 Through College*. We suspect that part of finding the right balance is slowing the pace of policy change, so districts can focus on working with teachers to implement CCSS.

The Disconnected Recertification Policy

Since 1985, when the state stopped issuing lifetime certificates, teachers have been required to have their certificates renewed every five years. For their first five-year renewal, teachers are expected to earn 15 graduate hours or a Continuing Education Option, an option that allows for a more customized professional growth plan based on a self-assessment matched to specific local district and classroom needs. During the second five-year renewal, teachers are required to complete an approved master's degree or additional continuing education credits.[*] Teachers who opt for the credits complete the modules and present certificates of successful completion to their school's professional development chair who logs the credit.

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[*] After second 5-year renewal, teachers just need to affirm they have taught successfully for 3 years in order to retain their teaching certificate.

In addition, all certified Kentucky teachers are required annually to earn a minimum of 24 hours of professional development credit. In most cases districts **do not** award professional development credit for earned hours of college credit. The state's mandate for teachers to earn renewal hours led many local administrators to use the time to capture entire faculties for districtwide workshops.

In fact, most of the high quality CCSS-focused professional development teachers experience is offered at times that are out of sync with the required recertification training hours. As one administrator told us:

> "Because our teachers are being given time during the school day to do this work, they are not allowed to count that work toward their PD requirements. Those requirements must be met after school, on weekends, during the summer, or during days when school is out."

Each of the NBCTs interviewed reported that they had received some excellent professional learning in their buildings from other colleagues, but that this did not count toward their 24 hours of required professional development. Teachers only get credit for "sit-and-get" on the district or co-op delivered professional development days each year, not the job-embedded and ongoing work with their professional learning communities or even their leadership for CCSS implementation.

The system for school principals may be equally problematic. One administrator told us:

> "Currently, principals are require to get 21 leadership hours of professional development per year to maintain their credentials. Unfortunately the quality of this is all over the place and basically determined by how motivated each principal is to take on professional development opportunities that will really benefit their teachers and students. There is a clearinghouse at KDE to get approval of those 21 hours but the agency has limited capacity to determine the quality of those hours. There are pockets of quality professional development going on and other places where the norm is 'go get your six hours of seat time and I'll just check it off the list for you. We are working on making this better, to ensure principals' professional development is tied to data and relies on using new technology system, but we have a ways to go.'"

The current system of teacher and principal renewal offers a wide range of opportunities to assemble credit hours. However, the system is quite fragmented, and it is difficult to determine how resources are expended and to what end. High-quality professional development is available, but there is

often a mismatch. Few mechanisms are in place for state and local officials to manage resources and opportunities more strategically.

The Mismatch Between What Educators Receive and What They Need

Across the nation school systems have struggled to find the right match between what principals and teachers receive in terms of professional development and what they need. As one Kentucky principal told us:

> "Most of my work is from the perspective of school leadership, including principals as well as teacher-leaders, and helping with the rollout of core content. I would say that as a state, we are all over the board in terms of PD."

We analyzed the professional development offerings awarded credit by the state's Effective Instructional Leadership Academy (EILA), which includes 570 workshops. EILA does not create or establish the offerings. It is a system for awarding credit for them upon request. We created six categories according to their apparent relevance to CCSS and whether or not the training provided content-specific, general pedagogical, or general support to the state's administrators. By far, the largest percentage seemed to have low relevance to CCSS, largely answering general information needs for those who participated. For example, this category includes workshops on suicide prevention and ritual crimes and the occult as well as how to access student reports. Of course, there is good reason for a wide range of professional development offerings, however, our analysis suggests that current offerings are not yet strongly focused on preparing educators for the Common Core.

Table 1: Content Relevance of EILA Professional Development Offerings

	Content Specific	**General Pedagogical**	**General Support**
High Relevance	5%	13%	5%
Medium Relevance	1%	15%	14%
Low Relevance	--	2%	45%

An important next step would be to collect and analyze data on what is provided, who participates, and how useful participants find these learning opportunities in relation to their needs. These data would help in allocating scarce professional development dollars in optimal ways. Such data are currently not available. The state has contracted with the New Teacher Center, based in Santa Cruz, California, to conduct a teacher working conditions

survey, which includes a number of related professional development items.[†] Some of the data are helpful in understanding the state of the art in professional development, as perceived by teachers themselves.

The survey reveals that there are some differences between what professional development teachers say they need and what they receive. Fewer than two-thirds of those responding agreed that professional development is differentiated, while only about half of them claimed that their training is evaluated and results are communicated to them. About one-third report that state assessment data arrives in time to influence their teaching. Perhaps most interestingly, one-third also reported that their teaching assignments do not "maximize their likelihood of success with students."

Table 2: Professional Development Teachers Need

In which of the following areas do you need professional development to teach your students more effectively?

Professional Development	First Year	2-3 Years	4-6 Years	7-10 Years	11-20 Years	20+ years
Special education (students with disabilities)	74%	70%	65%	59%	50%	44%
Special education (gifted and talented)	70%	66%	61%	56%	49%	42%
Differentiating instruction	78%	72%	67%	63%	59%	55%
English Language Learners	49%	43%	42%	37%	33%	31%
Closing the Achievement Gap	71%	70%	68%	66%	62%	59%
Your content area	46%	46%	42%	40%	37%	36%
Methods of teaching	64%	55%	47%	42%	38%	34%
Student assessment	64%	55%	48%	44%	41%	38%
Classroom management techniques	64%	51%	40%	34%	30%	27%
Reading strategies	62%	60%	54%	50%	44%	40%
Integrating technology into instruction	55%	55%	55%	60%	65%	69%

New Teacher Center

[†] The survey asks teachers to respond to questions about time; facilities and resources; community support and involvement; managing student conduct; teacher leadership; school leadership; professional development; and instructional practices and support.

Table 3: Professional Development Teacher Need/Have Had (10 hours/2 years)

In which of the following areas (if any) do you need/have had (10 hours/2 years) professional development to teach your students more effectively?

Professional Development	First Year	2-3 Years	4-6 Years	7-10 Years	11-20 Years	20+ years
Special education (students with disabilities)	20%	28%	29%	28%	25%	25%
Special education (gifted and talented)	7%	9%	10%	9%	9%	9%
Differentiating instruction	29%	52%	53%	53%	53%	53%
English Language Learners	6%	7%	8%	7%	7%	7%
Closing the Achievement Gap	16%	36%	42%	46%	49%	52%
Your content area	38%	57%	59%	57%	57%	58%
Methods of teaching	37%	54%	53%	51%	50%	51%
Student assessment	32%	59%	63%	63%	65%	68%
Classroom management techniques	29%	33%	28%	24%	23%	25%
Reading strategies	23%	41%	46%	47%	47%	47%
Integrating technology into instruction	28%	45%	48%	46%	47%	51%

New Teacher Center

In terms of professional development, teachers are less likely to report they need content support. They are more likely to report that they need assistance in differentiating instruction and learning more about how to teach special education students and second language learners.

The New Teacher Center survey further reveals that large proportions of teachers report that they need help with strategies for closing the achievement gap and with integrating technology into instruction. Technology is a particularly important area as the state gears up for computer-delivered assessments that will require significant familiarity and comfort with instructional uses of technology from students.

The most frequent opportunities for professional learning, at least at the very modest level of 10 hours over two years, are in the areas of content teaching and student assessment. Even at this modest level, fully half of the state's teachers had had no professional development in the content area and one-third had had none in the area of student assessment over the previous two years. The areas where there is the biggest gap between what teachers say they want in terms of professional development and what they have had the opportunity to experience have to do with instructing special education students and English language learners.

Additional information would be helpful. For example, the survey doesn't provide data about the perceptions of teachers, by grade level or subject, about the extent to which the professional development experienced is related to teaching CCSS or how helpful teachers find the PD to be. One administrator told us that "current professional development may or may not be working, but we don't have actual data that tells us what is working or not." A university professor told us:

> "The TELL data do not really tell us that much. And we do not really know what types of teachers are experiencing what kinds of professional development. And still yet we do not know the quantity of the professional development they experience."

Part of the process of organizing the state for CCSS implementation should be securing much more fine-grained survey data about the nature of the opportunities that exist and the quality and usefulness of those opportunities for teachers' needs.

Leveraging K-12 and Higher Education Resources

In Kentucky, 29 universities prepare teachers. Of these, 14 are NCATE accredited. In addition, the state authorizes eight different alternative route programs, most run by the same institutions that offer more traditional programs. We learned that many of the universities have made marked progress in improving their teacher education programs, especially the clinical component where new recruits are supported by specially designated veterans. In fact, Kentucky just joined NCATE's Alliance for Clinical Teacher Preparation, which seeks to deepen the practice teaching requirements for new teachers and connect performance assessment to state licensure and program approval. While new recruits are seen as better prepared, there is still a lot of work to do to ensure that teacher education graduates can teach to the Common Core.

Some respondents identified a challenge with the approach of university faculty. As one observer told us:

> "Too many higher education faculty, especially in the Arts & Sciences, think the focus of the Common Core reforms is on how high school teachers will teach differently so their college students are better prepared. The university faculty do not think that they have to change their teaching."

For most institutions, as several faculty told us, the tenure and promotion criteria and university reward structure work against deep higher education engagement in work with schools or implementation of CCSS. As one top state leader told us, reiterating an old complaint, "There is a very high priority for faculty to publish."

Another challenge is the fact that approximately 33 percent of Kentucky's new teacher graduates now matriculate through a wide range of alternative certification programs. Most of these offer little or no student teaching and shortcut pre-service training in pedagogical areas like differentiation and special education as well as the Common Core. The EPSB is taking a hard line in terms of requiring schools of education to infuse the CCSS into their programs. But it is unclear what these standards mean for programs that place new recruits into teaching with only a few weeks of training.

That said, a growing number of higher-education institutions such as those at Murray State, Western Kentucky, and the University of Louisville, have launched important initiatives to focus on the Common Core. Murray State faculty and local high-school teachers are jointly studying student work samples to more carefully understand college-level expectations. Western Kentucky has trained secondary teachers to help them quickly ratchet up the reading skills of 8th and 10th graders in light of Common Core expectations. The University of Louisville faculty has worked closely with the OVEC in understanding the new standards, breaking the standards down into student learning targets, and delving more deeply into formative assessment.

One of the state's most promising policy tools, one that could leverage higher education and K-12 resources, is the Kentucky Teacher Internship Program (KTIP). Beginning in 1993, KTIP has required all new teachers to be supported and assessed through a one-year program, drawing on university faculty to prepare them for teaching and the K-12 mentors and administrators who support and assess them. The novices must complete a portfolio, which has some elements similar to National Board Certification, assembling evidence on the extent to which they meet the state's teaching standards.

As we noted earlier, in 2008, Kentucky was a leader in the nation in providing mentoring and other induction supports for beginning teachers. Fully 90% of the beginning teachers reported having mentors and 78% reported participating in a formal induction program. Budget cuts have limited the scope of the program, and now only some teachers are able to participate. Because of funding cuts, the EPSB has lowered the stipends for resource teachers and has eliminated payment of substitute teachers to provide them with release time. EPSB has also limited the number of interns served.

Despite the several financial constraints, the EPSB, drawing on updated documents and examples from the Common Core standards, has continued efforts to improve KTIP. Last year KTIP summer training included aligned performance assessment tasks so the novice's portfolios include evidence of developing units tied to the new standards. The Kentucky NBCTs who have reviewed the KTIP protocols recognize the extreme importance of new teacher support, but also believe the tasks need a major overhaul. As one NBCT, who has worked with a dozen interns over the past few years, noted:

> "KTIP tasks focus around students learning specific, isolated skills, and the CCSS are much more involved than just a list of skills. First year teachers should be integrating collaborative learning, engaging students in serious inquiry, and helping students evaluate each other's work, and formulating conclusions. But the performance assessments don't do this. I just don't think that you can promote the teaching to the Common Core by asking novices to compartmentalize every learning target and listing an activity, technology, and assessment that goes with them."

KTIP offers a significant opportunity to simultaneously leverage higher education and K-12 resources by pushing university faculty and K-12 teachers to design and implement more refined KTIP tools and use the evidence from the performance assessments to improve teacher education programs while providing new recruits more fine-grain feedback for a their long-term professional growth.

The Missing Teacher Leadership Policies

Kentucky is to be commended for a number of initiatives to develop and promote teacher leadership through higher education programs, content collaboratives, and teacher networks.

In late 2010, EPSB closed all existing master's degree programs, making room for approximately 12 Teacher Leader Master's programs. As one university administrator told us, "Teacher leadership is big now and many universities have programs." For example, one promising program, just launched at the University of Kentucky, expects teachers to develop skills in evidence-based decision making as well as in leading instructional teams. The program, which took four years to launch, will be small because of limited resources, supporting only about 20 teachers per year. While the UK program and others are much needed, we found few policies promoting a substantive relationship between pre-service teacher education, the state internship program (KTIP), and the graduate level programs focused on classroom leadership for CCSS. Drawing these connections is an area for development.

A number of Kentucky districts that have made good use of the networks. As a result, terrific teachers interact with the district leadership team and help develop systematic plans for rolling things out. At present, however, there is no policy to cultivate and draw upon teacher leaders. There has been no calculation as to how many are needed and where; there is no plan to figure out how to keep them in the classroom while also giving them time and space to lead. The state has begun taking important steps, like framing the focus of leadership networks[10] and identifying a Kentucky teacher leader of the month. At the same time, we heard from several sources that many districts are not ready for teachers to lead. As one state leader told us, "Many of these teachers

just don't have the pull in their district." Another one told us, "Many administrators are not willing to listen to teachers; they are 'just teachers'."

Teachers can easily describe quality professional development, the kind that allows them to lead and work effectively with their colleagues such as Advance Kentucky, an effort to dramatically boost student achievement on college-level, national AP exams. Several spoke of meaningful learning opportunities that often led them to use student work samples in leading professional development for their colleagues. The math teachers expressed that they had received very meaningful, subject and CCSS-specific professional development from the Kentucky Council of Teachers of Mathematics, the Kentucky chapter of the National Council of Teachers of Mathematics, and the Kentucky Center for Mathematics, housed at Northern Kentucky University. Both gave teachers opportunities to work with their colleagues in aligning formative assessments and classroom practices.

These teachers told us of the tight relationship between CCSS expectations and what it takes to be National Board Certified. One NBCT noted:

> "Working on the Common Core and earning National Board Certification go hand in hand. Analyzing student work and submitting evidence to your peer is the cornerstone of the NB process. We need to do the same with the Common Core."

Another said:

> "ELA Common Core is common sense. What is different is that it raises the complexity of texts and writing. It focuses the writing and includes more non-fiction. It moves from the sense of teaching the content to being able to teach things as skills. It is what we do when we sit for the National Boards."

All of them spoke of how much more they want to assist in Common Core implementation, but they do not have time or administrative support. One of them told us, "We know many other excellent teachers, some NBCTs, some not, who can really help with the Common Core, but we do not often get that many chances." There are other striking examples. Several of the teachers interviewed are working through the Next Generation Teaching and Learning Committee. However, they expressed frustration at not having a venue to share what they had learned at the district or school level. This was a source of great frustration.

One administrator noted:

> "Teachers are the real implementers. I mean, these teachers helped to digest the CCSS for use by the state. Those teachers are excited about the work, and they know they are making a contribution. They are part of the district decision-making about how to roll out pieces at the local

> level, where the superintendents allow them to be. And then buy-in is just so high, because no one has to sell teachers on anything when the message is coming from another teacher, especially a good one."

There are currently few policies, including those targeting the states' 2550 NBCTs, in implementing the Common Core. The state has created opportunities to grow NBCTs, including the role the University of Louisville plays in growing more of these accomplished teachers. They are a resource waiting to be tapped.

Working through teacher leaders, the Kentucky Content Leadership Network (KCLN) also has enormous potential. As we have learned in so many other venues, the most credible source of information and insight for any teacher is another teacher.

The Content Networks have strong promise. They are comprised of three teachers, one elementary, one middle, and one high school, in each of three areas, math, ELA, and school and district leadership from each district. There are also pilot networks in science and social studies, which do not yet represent all of Kentucky's districts. The state offered voluntary guidelines for selecting participants and both teacher and leader participants in the Leadership Networks are receiving 48 hours of direct professional learning per year for 3 years in this system. Our interviews surfaced both strong support for the effort and some concerns about implementation. Teachers were unclear about how they will have opportunities to formally share their expertise back in their districts, and there were concerns about compensation for their work. One teacher indicated:

> "I am working in the Content Network. But we are not compensated for our service, and we struggle to get travel costs and other expenses reimbursed."

Connecting Common Core Leadership with State Resources

There are clearly a number of important resources in Kentucky to build on in implementing the Common Core, including the resource of smart, capable teachers and administrators. Much of the challenge is getting these resources better connected to and aligned with the incentives and opportunities the state can provide. The description below, from an educator in Washington County, provides a good example of how excellent work is occurring and could be even more effectively leveraged by reconceptualization of key policies:

> "Over the past year in my district, we have focused on developing knowledge and understanding of the Common Core State Standards (KY Core Academic Standards) and improving our use of formative assessment. Our district has identified teacher leaders in mathematics, English language arts, and special education in every school in our

district. Representatives from this group of teacher leaders; their principals; district directors of federal programs, special education, and instruction; the superintendent; and several post-secondary partners, all attend Regional Content Leadership Meetings (math, English language arts, instructional support). All members of this team then meet regularly to update one another on the progress of the region and state work and to further enhance our own understanding of the standards and formative assessment processes.

"Members of this group also work with our Curriculum Development Team. This team includes all K-12 ELA and math teachers. They work monthly in content group grade ranges, K-2, 3-5, and 6-12. These curriculum teams have been working to integrate the standards into units of study that the teachers develop throughout the year. During these meetings, the teachers develop summative unit assessments, select resources to incorporate into the units, and select formative strategies to use during instruction. They also have some time to review student assessment. This area will have a much stronger focus next year. Teachers in other content areas have met to better understand the literacy skills presented in the new standards and make connections to their content area instruction. In addition, teachers in other content areas have also utilized formative practices such as identifying the learning targets, determining appropriate practices for offering student support, and developing standards-based units.

"Although all of the above-mentioned work has been critical to our implementation of the standards, very little of it has been counted as "official" professional development to meet the KY requirement. Most of the above-mentioned work has occurred during school hours, providing release time to the teachers so that they can focus on developing their craft. We have managed to provide 2 days (12 hours) of PD credit by completing some of the above-mentioned work during the summer. In some cases, teachers have also met for a few hours after school to do this work and have counted that toward PD credit."

If this kind of powerful practice could be expanded and disseminated, Kentucky would be well on the way toward strong implementation of the CCSS. Figuring out how to use the resource of time, including professional development credits, toward job embedded work on high-leverage practices is likely to be an important part of a successful strategy.

In Sum: A Gap Analysis

Kentucky has many potential leverage points for supporting implementation of the CCSS. The chart below shows a number of these levers and the current status of work as well as gaps to be addressed by new policies and practices.

Table 4: Leverage Points and Current Status and Gaps

Leverage point	Current Status and Gaps
Co-op system	• Useful resource • Used well in some places • Inconsistent, and lack of oversight in implementation
IHEs	• Pre-service teacher education improving • Teacher performance assessment holds promise as a powerful lever • Lack of full integration with professional development for in-service teachers • Myriad of competing teacher leadership programs
Time mandate for professional development	• Helpful to provide motivation for engagement • Some good programs offered • Lack of credit for job-embedded professional development which is essential for serious work on the standards
Funding mandate for professional development	• Has provided some continuity and stability • Recession cuts into available allocations
Adoption of CCSS (potential tool for focusing common professional development elements)	• Energy focused on implementation • Real progress made in some areas • Little clarity on assessment • Poor communication about standards with teachers • Lack of related professional development
Reframing teachers' roles as leaders	• Growing opportunities for development of teacher leaders • Lack of expectation, time, and reward for teachers to learn and lead at the school and district levels.

A gap analysis can also be conducted in terms of the criteria identified in a recent study of four states with particularly well-developed professional learning opportunities for teachers.[11] The study pointed to the following features of the professional development landscape in these states:

Table 5: Comparison of Policy Features in State with Highly Successful Professional Learning Opportunities and Kentucky's Current Context

Policy Features in States with Highly-Developed Professional Learning Opportunities	Analysis of Current Kentucky Context
#1: A common and clearly articulated vision for professional development that permeates policy and practice. ✓ Standards for professional development that are reinforced in consistent ways by multiple policies and structures. For example, the standards are used to guide individual professional development plans, school plans, PLCs, expectations for programs provided by professional development organizations, the review processes used by local school, district, and county professional development boards, and state evaluations of professional development. ✓ Standards for ongoing professional development match expectations for teacher licensure and renewal and are understood and emphasized by all organizations involved with delivering professional development throughout the state.	Currently Kentucky has clearly articulated a vision for professional development in its standards and has sought to align goals for multiple parts of its system, e.g. initial licensing, renewal, and school improvement around these common standards. This is an important foundation. The state does not appear to require individual professional development plans or have process for evaluating or approving individual, school, or district plans, or the PD offered by other organizations. It is unknown whether these standards are actively incorporated into the PD offered by all organizations involved in such activities throughout the state. The extent to which pre-service preparation for teachers and leaders succeeds in supporting aligned standards is not known.
#2: Effective monitoring of professional development quality. ✓ States survey teachers or require that they be surveyed who have participated in professional development events to audit use of these services and the satisfaction levels of those who use them. States commission periodic formal evaluations of professional development quality.	Kentucky asks local districts to evaluate the quality of their professional development offerings. It is not clear whether these data are collected by the state and analyzed to guide decision making. There currently appears to be no statewide mechanism to regularly monitor or evaluate the usage or quality of professional learning. Schools develop plans for

These data are analyzed to inform state, local, and other organizational planning. ✓ States require educators and schools to develop their own professional development plans around the state standards and engage local professional development committees in reviewing these professional development plans for teachers and schools.	professional development in the context of school improvement, and local school councils are expected to inform professional development planning. It is not clear that these councils perform the function of local professional development committees in reviewing and approving individual teacher, leader, or school-level professional development plans, or if they obtain feedback on professional development needs and quality.
#3: Mentoring and induction requirements that are linked to and create a foundation for ongoing professional learning. ✓ Mentoring and induction, based on the state's teaching standards, are required for new teachers and tied to receipt of a professional or continuing license.	Kentucky had made great progress in building this solid, standards-based foundation for teaching. Recent cutbacks in KTIP have made mentoring and induction less available to beginning teachers. This is an area for attention.
#4: An infrastructure of organizations for facilitating professional development. ✓ States have means for encouraging job-embedded, classroom-connected professional learning supported by a stable infrastructure of organizations prepared to offer ongoing support. ✓ States work with professional organizations, content-area experts, universities, and private providers to ensure that a wide range of players contributes to high-quality implementation of professional development.	Kentucky has begun to build some infrastructure for professional learning through collaboration with the co-ops through the Leadership Networks. There are some high-quality partners in universities and other organizations. However, PD funding has not been stable and the provider community does not appear to be orchestrated into a coherent infrastructure of support for the areas of teacher and leader learning that need to be addressed. The SEA and many LEAs appear to have little connection to many of the providers. Geographic and content gaps in access to PD have been identified. There is not a current means to systematically address these.

Strategies for Coherence

Before we discuss recommendations for next steps in Kentucky, it may be useful to consider how some systems have tackled the issue of implementing new standards, curriculum, and instructional practices in a purposeful way, with strong supports to schools.

As part of its National Literacy Strategy (NLS) and National Numeracy Strategy (NNS) for implementing its new national curriculum frameworks, England instituted a national training program in 'best-practice' teaching strategies, which led to the percentage of students meeting the target standards in literacy increasing from 63% to 75% in just three years.[12] The training programs include packets of high-quality teaching materials, resource documents, and videos depicting successful practices. A cascade model of training, similar to a trainer of trainers model, is structured around these resources to help teachers learn and use productive practices.

The National Literacy and National Numeracy Centers provide leadership and training for teacher training institutions and consultants, who train school heads, lead math teachers and expert literacy teachers, who in turn support and train other teachers.[13] As more teachers become familiar with the strategies, expertise is increasingly located at the local level with consultants and leading mathematics teachers and literacy teachers providing support for teachers.[14] In 2004, England began a new component of the Strategies designed to allow schools and local education agencies to learn best practices from each other by funding and supporting 1,500 groups of six schools each to engage in collaborative inquiry and knowledge-sharing together.[15]

Similarly, since 2000, the Australian government has been sponsoring the Quality Teacher Programme, a large-scale program that provides funding to update and improve teachers' skills and understandings in priority areas and enhance the status of teaching in both government and non-government schools. The Programme operates at three levels: (1) Teaching Australia (formerly the National Institute for Quality Teaching and School Leadership); (2) National Projects; and (3) State and Territory Projects. Teaching Australia facilitates the development and implementation of nationally agreed upon teaching standards, conducts research and communicates research findings, and facilitates and coordinates professional development courses. The National Projects have a national focus and include programs designed to identify and promote best practice, support the development and dissemination of professional learning resources in priority areas, and develop professional networks for teachers and school leaders. The State and Territory Projects fund a wide variety of professional learning activities for teachers and school leaders under agreements with state and territory education authorities, allowing professional development activities to be tailored to local needs. These projects include school-based action research and learning, conferences,

workshops, online or digital media, and training of trainers, school project and team leaders.[16]

Western Australia's highly successful Getting it Right (GiR) Strategy provides specialist teaching personnel, professional development, and support to select primary schools to improve literacy and numeracy outcomes of high-needs students, with a focus on Aboriginal and other at-risk students.[17] Each school selects a highly regarded teacher with interest and expertise in numeracy or literacy to be a Specialist Teacher (ST), who is then trained through a series of seven three-day intensive workshops over the course of their initial two-year appointment. The Specialist Teachers work "shoulder to shoulder" with teachers in their schools, for about half a day each week for each teacher. The Specialist Teachers monitor and record student learning, help teachers analyze student learning, model teaching strategies, plan learning activities to meet the identified needs of students, assist with the implementation of these activities, and provide access to a range of resources, sharing expertise and encouraging teachers to be reflective about their practice.[18] Teachers show greatly enhanced knowledge about how students' learn reading, writing, and mathematics and much stronger teaching and assessment skills, including their ability to use data to identify and diagnose students' learning needs and to plan explicit teaching approaches to address these needs.[19]

These efforts have in common an effort to identify the resources schools need to change practice classrooms and to marshal and organize a set of tools and people to provide these resources in a systematic way, by tapping, developing, and expanding local expertise with top-down supports for bottom-up reforms. This is the focus and mission of Kentucky's Content Leadership Networks, which include some but not all of the elements of these systems. We believe that further developing such a sense of system may be helpful to Kentucky in thinking about its next steps.

Initial Recommendations

> State leaders will have to work together, with consortia, and with K-20 systems to develop comprehensive programs that deeply immerse teachers in the Common Core, its related curriculum and assessment systems, and content-specific pedagogies—and then provide ongoing classroom support and feedback.
>
> - Stephanie Hirsh (2012)

Because of its history and its commitment to implementing CCSS, the Commonwealth of Kentucky has much to build on in transforming its system of professional development for teachers. Many of the building blocks are in place, although they are not always yet organized or expansive enough to meet the full range of needs. Our initial recommendations focus both on suggestions for *policy change* that will better prepare the state to support teachers in

effective practice aligned to CCSS, and on policy implementation that may allow existing helpful policies to meet their intended outcomes. These recommendations include:

1. **Develop a Coherent Conception of the Work to be Done and the Resources and Incentives Needed to Do it.** Much as England and Australia did in implementing new standards and curricula, the state should articulate what kinds of curriculum, instruction, and assessment changes will be needed to implement the Common Core and what curriculum materials, illustrations of practice, and expertise will be needed to support this new vision. This planning should also determine which of the parts of the system can be tasked with developing the critical tools, e.g. curriculum materials, instructional supports, such as videos and trained coaches and delivering each important element; what kinds of expertise exist and can be tapped for implementation; and how best practices can be uncovered and disseminated to others who want to learn from them.

This work started with the System of Leadership Networks and with CIITS. Coupled with the development of curriculum and learning tools and incorporation of the higher education resources devoted to pre- and in-service educator development, the
state should evaluate how to create a comprehensive infrastructure for professional learning, identify existing resources and how to leverage them best, as well as how to fill gaps, e.g. through KDE, universities, professional development providers, district networks, school networks, organized groups of teacher leaders. Another element of alignment will be connecting the new teacher and leader effectiveness work, and the *Characteristics of Highly Effective Teaching and Learning* framework, directly to the professional development system.

2. **Integrate and Coordinate Professional Development Funding Streams.** We learned that an array of additional sources of funds could be tapped for professional development in more strategic ways, including Title III funding for second language learners, Perkins funding for career and technical education, and Title I implementation dollars. Coordinating multiple, fragmented sources of funding for more coherent support of professional learning can be a powerful strategy. For example, researchers have documented how Superintendent Anthony Alvarado used "multi-pocket" budgeting strategies to align various funding streams into unified plan for professional learning among teachers in New York City's District #2 and later in San Diego. With intensive, highly coordinated professional development, they boosted student achievement significantly in both places. [20] Although in Kentucky, a large share of professional development resources are directed to the school site, this kind of integration and coordination of resources can be facilitated at the state level before resources go to districts and schools and help leaders learn how they can organize their resources most powerfully, within an appropriate legal framework.

Efficiencies can also be realized, and effectiveness enhanced, if high-quality resources including regularly available summer or weekend professional development institutes; teaching videos and supportive guides for professional development on practice that can be used at the school or district level; and training for coaches and mentors, are developed centrally for the kinds of learning schools are unlikely to be able to mount easily on their own. These might include areas that Kentucky teachers have identified as currently unmet needs such as differentiated instruction, teaching of special education students, English language learners, and areas that will be high-priority for the Common Core standards, such as teaching for complex problem-solving, modeling, reasoning, and communication in math, and learning to read increasingly complex texts and informational writing drawing on evidence in English language arts.

3. **Better Use of the Time Teachers are Investing in Professional Learning.** As a key resource, the state's required 24 hours of professional learning per year rule could be better-leveraged in at least two ways:

- By more clearly linking the plan for the 24 hours with a planning process in which individual educators and schools plan professional development linked to the professional development standards and responsive to their needs for particular areas of support; and

- By allowing these hours to be used not only for traditional professional development programs but also for carefully planned, job-embedded professional learning including time spent on inquiry, action research, the kind of lesson study commonly undertaken by teachers in top-performing nations, as well as for university-based coursework supportive of these practices, tied to these standards, and responsive to Common Core needs, including the recently developed Teacher Leadership programs.

4. Leverage and Connect K-12 and Higher Education Resources: The state has launched a number of promising programs supporting the implementation of the Common Core. But most of them are in the separate silos represented by the systems of K-12 and higher education. Strong relationships exist between leaders of the respective systems. The state should seek to fuse resources that exist within and across each of the separate systems to drive more coherent, joint action to connect teacher education, induction, and professional development on the Common Core standards and college- and career-ready learning and instruction. The state should develop and make available tools for disseminating practice, and create an integrated system of supports for teachers and leaders at each stage of their career.

Examples of this kind of mutual reinforcement can be found in countries like Singapore, where higher education institutions, like the National Institute of

Education, offer ongoing professional development supports in key areas like action research, lesson study, training for mentor teachers, and other areas where reforms in K-12 schools are heading. Leaders in the schools in these kinds of areas are both trained through the universities and, sometimes, also become instructors in those classes for other teachers and principals.

CIITS could serve as one of several tools that could be useful in providing a well-vetted clearinghouse of Common Core curriculum materials, e.g. unit plans for key concepts with authentic formative and summative assessments; videotapes of expert teaching practices linked to these units and the standards; and training for expert teachers and principals who can serve as mentors and coaches to others in offering professional development and supports for CCSS instruction and assessment. Part of the infrastructure must also include training and development for central office staff that helps them develop a coherent conception of the actions needed at the local level to support an integrated approach to transforming curriculum, instruction, and assessment.

5. **Capitalize on Teacher Leadership:** The state has many excellent teachers, including NBCTs, who have or are developing unique skills relevant to the Common Core. A number of them have been identified as content specialists already. The state should identify more of these expert teachers; organize them into cadres of CCSS curriculum developers, instructional coaches, and assessment experts; offer them shared professional learning and training for new roles; support their release time; and offer professional compensation in order to develop the tools needed by other teachers and to spread CCSS pedagogical expertise more rapidly. At the same time, the state can be more explicit as to what is needed in the growing number of teacher leadership degrees and offer specific compensation for those teachers who master the necessary skills to lead CCSS reforms.

6. **Use Well-Designed Student and Teacher Performance Assessments to Drive Changes in Teacher Preparation and Development:** Kentucky has a history of student performance assessment which once provided an important base for meaningful learning for both students and teachers. The state's commitment to such assessments, which are needed to measure college and career readiness, should be renewed and continued. One forum for next steps is the state's work as an Innovation Lab site with other states that are interested in pushing the assessment agenda forward. Focusing on the creation of powerful assessments for students, with teacher involvement in development and scoring, will provide a lever for teacher engagement in considering what the standards look like in practice and opportunities for collaborative planning, learning, and sharing.

In addition, the state has been redesigning its teacher education system with a much stronger clinical component. The state could use its newly designed Teacher Performance Assessments, tied to CCSS expectations, to drive curricular changes in teacher education that can create higher quality in both

traditional pre-service and alternative programs. The power of the assessments will depend on their quality and use in licensure and accreditation processes. Such a move would also provide more consistent evidence on new teachers' capacity to teach to the standards and offer a feedback loop that would provide an engine for improvement in programs and candidates' abilities.

7. **Reinforce KTIP and Build on its Successes:** Twenty years ago the Kentucky Teacher Internship Program was a national model and had many of the components needed to link teacher education and professional development. Now KTIP has the charge to help new teachers learn to enact CCSS-informed instructional practices. The state should reinvest in KTIP and also include a virtual learning component, so more new teachers can have access to master teachers across the state, tied back to their pre-service training and the performance assessments that determine their readiness to teach. Sharing models of best practice in mentoring across local KTIP sites would also allow learning across schools, as would deliberate creation of school networks that can undertake certain tasks, such as the training of mentor teachers, at scale.

8. **Create a More Coherent and Accountable System of Professional Learning:** One of our respondents stated, "I would advise a more focused, rigorous, aligned and accountability-based model than what currently exists." To achieve this goal, the state should build on its emerging clearinghouse of professional development offerings to create a means for monitoring and evaluating educators' engagement in and perceptions of the quality of particular kinds of professional learning. An annual survey designed for this purpose is one possible tool. Requiring evaluations of professional learning opportunities from all providers, with data provided to the SEA and LEAs, is another. Like some other states that use a more systematic approach to data collection about professional development, this information should be used to identify gaps and help guide planning.

The state might also consider requiring its local school and district councils to take up the kind of review and approval of professional development plans that are conducted in states with highly developed systems. This provides another form of monitoring and accountability. The state has created standards for school improvement and will need to approve school improvement plans for low-performing schools. These could be also be leveraged to build the kind of professional development expectations aligned to PD standards. For example, in New Jersey, high-need schools were required to create professional learning communities and the state worked with these schools and their districts to create strong, well-supported PLC models that could move the needle on achievement.

9. **Take Advantage of Technology and Online Resources:** Teachers will have a plethora of CCSS tools available to them, both those developed by Kentucky such as its promising CIITS system, and others developed nationally.

Kentucky teachers, in large part due to progressive and thoughtful state leadership, are engaged in developing lessons as well as posting them for their colleagues to review and use. Such offerings, however, can become overwhelming for teachers who seek to use them. The state should clarify the most effective tools, drawing on Kentucky teachers as raters who can help their colleagues choose among what will be many online options for the resources needed to teach to the Common Core.

The state should also consider how to build a virtual community that will engage teachers in deep pedagogical conversations and robust collective action. The state has developed a range of potentially powerful options, with the use of PD 360 and iTunes U as well as CIITS, but no policy structure is in place that can support sustained use of the tools. This is another place where drawing on the expertise of teacher leaders to vet, disseminate, and illustrate productive uses of the tools, and to manage and engage in virtual discussions of practice could be helpful if KDE or the appropriate designee within the professional development infrastructure is tasked with organizing the resources and the process.

10. **Re-Norm School Cultures for the Redesign of Teaching and Learning:** Implementing CCSS will require redesigned systems of teaching and learning, with teachers leading in different ways and schools organized so educators can spread their expertise to each other. In many ways, this will require the re-norming of school cultures. The state's top-level educators are well poised, as part of their larger communication strategy, to lead the way.

To date, the state has done little to create incentives, e.g., venture funds or inducements, such as venture funds and additional FTE, for administrators and school board members to redesign school schedules for students and teachers. In particular they need to ensure high-quality, job-embedded professional development and common planning time found routinely in other top-performing nations. For example, in Singapore, teachers are prepared as action researchers in their rigorous preparation programs, and then they have 10-20 hours a week to engage joint professional development that solves pedagogical problems and promotes the examination of best practices from other classrooms, schools, and even nations.

We discovered that Kentucky does currently provide waiver opportunities for districts to pursue innovative school designs for teacher learning and leadership, but relatively few of them have sought to make any transformative changes. Progress could be supported through professional development opportunities for leadership teams to learn about successful redesigns and the change processes that made them possible.

In addition, this process could be stimulated by identifying schools and districts that have made successful changes in how schools are designed for student and teacher learning and by creating opportunities for these schools to

share their practices with others. As seen in the successful improvement strategies of Finland and Ontario, Canada, deliberate sharing of successful practice can be a powerful driver for reform. This can be done through practice-based studies of successful and improving schools that are disseminated statewide, through conferences and school visits that bring researchers and practitioners together to share knowledge and practice. School networks could facilitate this sharing. All of these approaches can be stimulated by orienting state agencies to dissemination of best practices rather than compliance monitoring. Only modest resources to schools and networks of schools would be needed for accessing, sharing, and acting on knowledge.

We close with a fitting epilogue from Washington Post reporter, Jay Matthews,[21] who wrote recently:

> I have interviewed hundreds of teachers who significantly raised student achievement. Not one has ever said it was because of great state learning standards. Good curriculums help, but high-minded, numbingly detailed standards don't produce them. How teachers are trained and supported in the classroom is what matters.

Appendix A

Below are results from the 2007-08 Schools and Staffing Survey administered by the National Center for Education Statistics and analyzed by a team of researchers at Stanford University.[22] The tables below provide a more detailed look at how Kentucky compares to other states on a number of indicators of professional learning.

Table 1: Professional Development for Teachers in First Year of Teaching (by state), 2007-08

Teachers were asked a variety of questions around professional development in their first year of teaching. Kentucky teachers responded above the national average on the following questions:

- 89.7% worked closely with a master or mentor teacher in their first year of teaching; and
- 78.2% experienced regular supportive communication with principal, other administrators or department chairpersons with an average of 3.11 supports available.

Table 2: Focus of Professional Development Activities (by state)
Teachers were asked about the focus of professional development activities based on the content of their subject area, use of computers, reading instruction and on student discipline and management. Kentucky teachers were above the national average in each of the following areas:

- 27.2% reported receiving professional development for 17-32 hours on the content of the subject they teach;
- 74.8% reported receiving professional development on the use of computers for instruction;
- 66.8% reported receiving professional development on reading instruction; and
- 54.1% reported receiving professional development on student discipline and management in the classroom.

Table 3: Focus of Professional Development Activities In Last 3 Years (by state)

Teachers were asked about the focus of PD with regards to teaching students with disabilities and teaching students with limited English proficiency. Kentucky was above the national average with 50.5% of teachers responded having participated in PD around teaching students with disabilities.

Table 4: Usefulness of Professional Development in Last 12 Months (by state)
Teachers were asked to rank (using a 4 point scale, 1 being not useful and 4 being very useful) the usefulness of PD activities they attended in the last 12 months. Kentucky ranked at the national average on all of the following foci: content area, use of computers for instruction, reading instruction, and student discipline and management.

Table 5: Usefulness of Professional Development in Last 3 Years (by state)
Teachers were asked to rank (using a 4 point scale, 1 being not useful and 4 being very useful) the usefulness of professional development activities they attended in the last 3 years around specific foci. Kentucky teachers responded similar to national average on

teaching students with disabilities, but they were more likely than others in the nation to rank professional development for teaching students with limited English proficiency as not useful.

Table 1: Professional Development for Teachers in First Year of Teaching (by state), 2007-08

	Percent of teachers who participated in induction program during first year of teaching	Teachers who received the following types of support during first year of teaching						
		a) Worked closely with master or mentor teacher in first year of teaching	b) Common Planning Time with teachers in their subject	c) Seminars or classes for beginning teachers	d) Regular supportive communication with principal, other administrators, or department chair	At least 3 of supports a-d	All 4 supports (a-d)	Avg. number supports (a-d)
Nat'l	**73.8%**	**78.4%**	**55.7%**	**73.6%**	**79.8%**	**67.9%**	**36.5%**	**2.87**
AL	62.3%	74.5%	64.9%	69.2%	83.2%	65.9%	41.9%	2.92
AK	69.6%	79.8%	36.6%	53.0%	73.0%	45.1%	18.2%	2.42
AZ	64.6%	67.8%	56.4%	69.7%	73.4%	59.3%	29.7%	2.67
AR	74.1%	84.5%	56.1%	55.8%	81.5%	66.1%	28.6%	2.78
CA	75.1%	75.2%	59.2%	77.9%	74.0%	66.5%	38.8%	2.86
CO	90.6%	86.2%	59.0%	81.2%	87.0%	75.6%	46.6%	3.13
CT	82.1%	83.9%	52.1%	75.5%	82.8%	71.4%	38.4%	2.94
DE	91.5%	79.2%	52.9%	78.7%	75.2%	67.9%	39.1%	2.86
DC	61.4%	63.1%	52.4%	50.5%	61.9%	45.8%	20.4%	2.28
FL	76.9%	74.4%	62.1%	80.9%	83.8%	72.3%	41.9%	3.01
GA	62.2%	78.2%	67.6%	74.4%	81.0%	74.2%	40.9%	3.01
HI	52.7%	66.9%	57.8%	65.6%	67.9%	59.3%	34.3%	2.58
ID	69.1%	77.9%	50.2%	69.6%	80.5%	71.0%	34.7%	2.78
IL	74.3%	71.5%	42.8%	66.2%	76.4%	59.0%	26.9%	2.57
IN	70.0%	75.6%	40.3%	58.6%	79.7%	53.7%	22.1%	2.54
IA	92.7%	91.0%	40.1%	69.9%	76.6%	62.0%	24.3%	2.78
KS	66.8%	74.4%	47.8%	60.5%	77.8%	56.1%	27.5%	2.61
KY	78.3%	89.7%	64.1%	70.4%	86.4%	78.2%	42.7%	3.11
LA	83.4%	82.2%	58.1%	77.7%	85.5%	77.3%	41.8%	3.03
ME	71.6%	86.0%	29.9%	53.4%	82.5%	51.2%	12.7%	2.52
MD	77.3%	76.5%	67.8%	82.3%	81.7%	76.9%	39.5%	3.08
MA	80.5%	77.6%	47.2%	54.7%	69.1%	52.3%	24.9%	2.49
MI	65.3%	76.8%	41.8%	59.7%	75.0%	56.5%	20.3%	2.53
MN	68.1%	69.3%	42.0%	62.7%	74.9%	52.8%	29.4%	2.49
MS	55.3%	66.8%	58.8%	60.9%	75.0%	56.4%	33.4%	2.61
MO	82.3%	87.0%	49.2%	84.4%	83.8%	76.9%	36.3%	3.04
MT	47.4%	67.0%	39.2%	47.7%	79.4%	48.1%	22.7%	2.33
NE	62.4%	68.0%	47.6%	60.6%	80.7%	57.0%	27.8%	2.57
NV	73.3%	62.9%	53.9%	86.4%	74.7%	63.3%	35.5%	2.78
NH	72.2%	73.9%	45.5%	52.1%	74.6%	51.6%	16.5%	2.46
NJ	68.4%	79.7%	50.8%	73.8%	81.4%	66.8%	35.2%	2.86
NM	73.1%	83.0%	50.7%	73.0%	73.0%	62.0%	31.9%	2.80
NY	69.6%	83.2%	58.9%	71.5%	85.3%	72.9%	39.0%	2.99
NC	88.9%	84.9%	56.1%	89.4%	75.7%	72.8%	42.8%	3.06
ND	42.1%	61.2%	32.0%	44.0%	72.3%	40.8%	14.7%	2.09
OH	88.7%	86.6%	43.2%	78.4%	82.4%	72.8%	32.2%	2.91
OK	79.3%	90.2%	51.6%	50.2%	84.5%	65.7%	26.7%	2.77
OR	56.8%	75.0%	46.8%	63.0%	76.7%	58.9%	26.6%	2.61
PA	90.1%	87.9%	42.3%	70.3%	74.0%	63.3%	29.0%	2.75
RI	61.8%	75.0%	49.8%	54.1%	66.3%	58.7%	25.6%	2.45
SC	93.3%	84.0%	67.1%	88.7%	82.8%	77.9%	51.4%	3.23
SD	40.7%	45.3%	29.4%	49.7%	70.0%	33.0%	13.1%	1.94
TN	52.5%	75.8%	52.9%	75.2%	87.0%	71.7%	37.4%	2.91
TX	68.3%	77.7%	68.3%	78.9%	83.9%	75.5%	45.9%	3.09
UT	82.9%	87.5%	56.1%	89.4%	85.7%	81.7%	47.0%	3.19
VT	59.4%	78.0%	38.4%	33.1%	69.4%	43.1%	9.9%	2.19
VA	77.7%	76.2%	61.3%	77.7%	78.8%	66.4%	41.4%	2.94
WA	75.5%	73.5%	47.7%	70.0%	73.7%	59.9%	28.9%	2.65
WV	70.9%	83.9%	42.2%	64.4%	84.4%	64.9%	26.7%	2.75
WI	71.8%	73.7%	40.3%	69.3%	72.7%	56.7%	25.4%	2.56
WY	69.0%	71.4%	42.8%	63.2%	71.3%	51.8%	25.5%	2.49

Table 2: Focus of Professional Development Activities (by state)

	Percent of teachers who participated in the past 12 months in professional development activities focusing on:												
	The content of the subject(s) they teach					Uses of computers for instruction					Reading instruction		
	All	For 8 hours or less	For 9-16 hours	For 17-32 hours	For 33 hours or more	All	For 8 hours or less	For 9-16 hours	For 17-32 hours	For 33 hours or more	All	For 8 hours or less	For 9-16 hours
Nat'l	**87.5%**	**18.3%**	**24.5%**	**21.0%**	**23.8%**	**67.0%**	**41.0%**	**15.8%**	**6.2%**	**4.8%**	**61.5%**	**27.9%**	**17.5%**
AL	89.0%	18.7%	26.8%	21.1%	22.4%	76.5%	50.0%	15.7%	6.8%	4.0%	70.1%	30.0%	18.2%
AK	83.3%	11.8%	16.5%	22.2%	32.8%	60.9%	30.7%	16.4%	7.9%	6.0%	55.3%	18.0%	19.9%
AZ	84.6%	17.3%	22.3%	19.5%	25.5%	59.2%	41.4%	11.9%	3.3%	2.5%	68.1%	30.2%	18.8%
AR	92.0%	12.5%	13.9%	22.7%	42.9%	88.8%	46.2%	29.4%	7.0%	6.2%	67.5%	25.1%	19.0%
CA	88.0%	15.4%	23.6%	20.6%	28.4%	62.1%	36.6%	14.5%	5.7%	5.4%	57.0%	21.5%	15.0%
CO	89.0%	15.2%	22.4%	19.7%	31.7%	62.8%	39.8%	12.5%	4.7%	5.9%	68.5%	24.0%	26.3%
CT	86.7%	24.8%	27.6%	19.9%	14.4%	77.1%	53.4%	16.8%	3.9%	3.0%	66.3%	32.6%	19.9%
DE	88.8%	18.7%	26.3%	21.3%	22.5%	56.0%	34.8%	11.0%	4.5%	5.7%	61.7%	31.8%	18.0%
DC	89.4%	18.5%	17.0%	19.8%	34.1%	42.5%	25.7%	6.8%	4.9%	5.2%	74.8%	29.1%	18.0%
FL	89.9%	17.4%	26.0%	20.6%	25.9%	70.3%	41.2%	16.2%	7.7%	5.2%	82.8%	32.8%	23.8%
GA	86.3%	17.6%	29.2%	17.7%	21.8%	65.6%	40.3%	15.8%	5.1%	4.3%	57.2%	26.3%	18.6%
HI	82.8%	12.6%	23.3%	21.3%	25.5%	48.9%	25.2%	9.1%	6.5%	8.0%	64.4%	26.0%	16.1%
ID	85.9%	14.3%	21.3%	20.0%	30.4%	42.2%	21.5%	10.0%	5.7%	5.0%	53.2%	17.9%	14.9%
IL	89.1%	25.7%	25.5%	20.8%	17.1%	59.9%	39.1%	11.6%	5.3%	3.9%	66.5%	35.6%	14.8%
IN	79.6%	23.9%	24.0%	16.6%	15.1%	56.4%	38.2%	10.2%	4.8%	3.2%	61.4%	31.2%	13.2%
IA	82.7%	15.8%	19.8%	22.1%	24.9%	50.5%	31.4%	12.4%	4.5%	2.2%	78.4%	23.6%	21.7%
KS	85.6%	19.1%	25.4%	19.7%	21.5%	73.8%	42.8%	17.3%	7.0%	6.8%	75.7%	38.2%	21.3%
KY	89.2%	14.8%	28.1%	27.2%	19.0%	74.3%	51.5%	17.0%	3.7%	2.1%	66.8%	32.9%	20.5%
LA	83.2%	20.4%	25.9%	21.6%	15.4%	65.8%	36.2%	14.6%	8.2%	6.7%	63.2%	33.5%	14.7%
ME	87.2%	14.0%	21.1%	22.5%	29.7%	68.4%	38.1%	16.5%	8.0%	5.8%	60.1%	23.1%	17.7%
MD	89.9%	26.5%	22.1%	19.8%	21.5%	72.0%	45.1%	16.7%	6.6%	3.5%	66.0%	31.4%	21.2%
MA	89.4%	15.2%	22.0%	20.7%	31.4%	57.8%	32.3%	16.6%	3.0%	5.8%	53.2%	18.0%	15.6%
MI	88.1%	16.5%	22.0%	26.0%	23.6%	61.5%	43.3%	11.2%	3.5%	3.5%	57.3%	26.8%	16.3%
MN	89.1%	16.9%	21.6%	22.6%	28.0%	67.2%	42.6%	15.1%	5.8%	3.7%	75.1%	36.8%	18.0%
MS	80.0%	26.4%	22.1%	15.4%	16.2%	59.4%	36.0%	11.9%	6.7%	4.9%	56.0%	30.5%	12.9%
MO	89.2%	16.8%	25.3%	21.7%	25.4%	69.8%	41.3%	14.6%	7.8%	6.0%	63.6%	26.0%	15.7%
MT	87.0%	14.4%	22.8%	26.6%	23.2%	61.2%	31.6%	16.5%	6.9%	6.2%	52.5%	22.1%	15.3%
NE	81.7%	14.7%	30.5%	19.1%	17.4%	66.0%	38.2%	16.7%	6.6%	4.5%	56.8%	25.7%	15.6%
NV	89.0%	16.6%	25.6%	20.4%	26.4%	62.3%	37.7%	13.1%	7.2%	4.2%	64.1%	22.9%	20.1%
NH	94.6%	12.4%	23.7%	26.0%	32.5%	68.1%	44.2%	12.4%	5.1%	6.5%	61.7%	23.7%	17.3%
NJ	89.7%	22.1%	27.1%	17.8%	22.8%	67.5%	49.0%	11.0%	3.4%	4.2%	53.7%	25.7%	15.6%
NM	83.5%	17.0%	20.9%	21.1%	24.6%	57.2%	35.9%	12.1%	4.6%	4.7%	64.7%	26.6%	17.7%
NY	89.3%	21.2%	27.7%	18.2%	22.2%	66.3%	39.0%	15.7%	9.0%	2.6%	54.7%	22.2%	17.3%
NC	88.8%	25.1%	24.7%	20.7%	18.2%	69.5%	40.9%	16.8%	6.7%	5.1%	73.0%	29.8%	23.7%
ND	83.0%	13.0%	25.4%	23.0%	21.6%	72.2%	31.0%	23.4%	11.3%	6.5%	54.1%	21.8%	17.9%
OH	79.3%	21.0%	24.1%	16.6%	17.6%	60.3%	40.2%	12.5%	4.5%	3.1%	47.0%	25.1%	10.3%
OK	84.0%	23.6%	22.0%	18.5%	19.9%	69.1%	48.6%	12.8%	4.5%	3.2%	52.0%	27.5%	11.7%
OR	87.5%	14.1%	18.8%	24.1%	30.4%	58.2%	38.8%	11.2%	4.4%	3.8%	73.2%	24.7%	25.9%
PA	84.5%	17.9%	20.9%	19.3%	26.3%	74.3%	40.1%	18.1%	8.1%	8.0%	63.1%	29.1%	18.3%
RI	85.5%	16.8%	24.0%	13.2%	31.4%	40.6%	25.7%	6.8%	5.3%	2.8%	59.2%	25.3%	16.0%
SC	86.1%	21.4%	25.2%	18.0%	21.5%	81.5%	39.8%	19.0%	10.5%	12.1%	59.6%	26.8%	16.7%
SD	84.9%	15.7%	17.9%	21.7%	29.7%	69.3%	30.6%	15.7%	11.7%	11.3%	60.6%	23.6%	17.6%
TN	85.5%	19.6%	25.9%	26.0%	14.0%	65.0%	39.9%	14.7%	7.8%	2.7%	60.3%	30.5%	17.6%
TX	91.0%	14.6%	26.5%	27.0%	22.9%	76.4%	43.6%	21.4%	6.4%	4.9%	54.5%	27.5%	15.3%
UT	93.8%	10.1%	24.0%	22.6%	37.0%	64.5%	35.7%	16.6%	6.0%	6.2%	71.4%	28.3%	21.0%
VT	90.8%	11.2%	15.7%	22.0%	41.8%	61.9%	32.5%	12.4%	7.6%	9.5%	53.9%	17.1%	15.0%
VA	88.6%	21.5%	24.3%	19.2%	23.6%	75.3%	47.6%	18.2%	6.5%	3.0%	64.7%	36.4%	13.3%
WA	91.4%	11.8%	23.3%	23.4%	32.9%	61.7%	36.3%	13.6%	6.8%	5.0%	64.9%	29.0%	22.5%
WV	84.7%	21.2%	20.5%	21.7%	21.3%	80.6%	43.5%	21.8%	8.7%	6.6%	53.2%	22.3%	15.3%
WI	81.7%	14.7%	20.4%	19.0%	27.6%	62.9%	37.3%	13.7%	5.9%	5.9%	57.1%	23.1%	16.0%
WY	81.4%	14.8%	18.3%	20.0%	28.3%	68.8%	35.4%	18.5%	8.6%	6.2%	72.0%	25.5%	24.7%

	Percent of teachers who participated in the past 12 months in professional development activities focusing on:						
	Reading instruction cont.		Student discipline and management in the classroom				
	For 17-32 hours	*For 33 hours or more*	**All**	*For 8 hours or less*	*For 9-16 hours*	*For 17-32 hours*	*For 33 hours or more*
Nat'l	***9.5%***	***7.7%***	**45.7%**	***32.9%***	***9.0%***	***3.1%***	***2.0%***
AL	*13.1%*	*8.8%*	48.1%	*38.1%*	*7.0%*	*1.8%*	*1.1%*
AK	*9.7%*	*7.7%*	41.6%	*24.3%*	*9.4%*	*5.3%*	*2.6%*
AZ	*9.9%*	*9.3%*	45.8%	*30.0%*	*12.2%*	*2.8%*	*0.9%*
AR	*12.0%*	*11.4%*	67.9%	*47.8%*	*15.5%*	*3.4%*	*1.2%*
CA	*8.4%*	*12.1%*	39.5%	*25.9%*	*8.5%*	*3.2%*	*1.9%*
CO	*9.5%*	*8.7%*	45.9%	*28.4%*	*11.0%*	*5.2%*	*1.3%*
CT	*8.1%*	*5.7%*	33.2%	*27.6%*	*3.7%*	*0.8%*	*1.1%*
DE	*7.7%*	*4.2%*	51.2%	*37.0%*	*10.2%*	*2.8%*	*1.1%*
DC	*12.6%*	*15.1%*	51.5%	*27.7%*	*10.1%*	*7.8%*	*5.9%*
FL	*13.4%*	*12.9%*	44.4%	*29.6%*	*7.8%*	*3.2%*	*3.8%*
GA	*6.3%*	*6.0%*	39.6%	*30.2%*	*5.7%*	*1.8%*	*1.9%*
HI	*14.2%*	*8.0%*	36.6%	*22.2%*	*7.6%*	*4.6%*	*2.2%*
ID	*9.4%*	*11.0%*	44.1%	*24.5%*	*11.9%*	*4.9%*	*2.9%*
IL	*9.4%*	*6.7%*	46.4%	*36.3%*	*6.2%*	*2.9%*	*1.1%*
IN	*10.6%*	*6.4%*	34.5%	*27.3%*	*4.6%*	*1.4%*	*1.2%*
IA	*18.2%*	*14.9%*	33.7%	*22.6%*	*5.5%*	*3.4%*	*2.3%*
KS	*8.2%*	*8.0%*	48.3%	*32.4%*	*10.9%*	*3.2%*	*1.8%*
KY	*6.2%*	*7.2%*	54.1%	*38.8%*	*10.8%*	*3.2%*	*1.4%*
LA	*10.1%*	*5.0%*	54.6%	*34.2%*	*11.7%*	*4.8%*	*3.8%*
ME	*9.1%*	*10.3%*	28.3%	*18.8%*	*6.2%*	*1.2%*	*2.1%*
MD	*7.7%*	*5.7%*	45.4%	*36.1%*	*6.4%*	*0.9%*	*1.9%*
MA	*11.5%*	*8.1%*	38.4%	*24.0%*	*7.5%*	*4.5%*	*2.3%*
MI	*9.1%*	*5.0%*	41.4%	*30.5%*	*7.1%*	*1.8%*	*2.0%*
MN	*10.9%*	*9.4%*	49.6%	*35.2%*	*7.6%*	*3.4%*	*3.3%*
MS	*7.6%*	*5.0%*	52.1%	*37.8%*	*9.3%*	*2.6%*	*2.5%*
MO	*12.1%*	*9.8%*	59.6%	*39.2%*	*14.2%*	*3.4%*	*2.8%*
MT	*8.2%*	*6.9%*	48.5%	*25.6%*	*13.0%*	*6.1%*	*3.8%*
NE	*8.6%*	*6.8%*	51.6%	*34.3%*	*9.5%*	*5.1%*	*2.7%*
NV	*11.0%*	*10.1%*	41.8%	*25.2%*	*10.8%*	*3.9%*	*1.9%*
NH	*9.6%*	*11.1%*	43.3%	*31.7%*	*7.4%*	*2.3%*	*1.9%*
NJ	*8.7%*	*3.8%*	43.7%	*35.1%*	*6.1%*	*1.0%*	*1.5%*
NM	*7.8%*	*12.5%*	33.6%	*21.9%*	*7.3%*	*3.1%*	*1.2%*
NY	*8.9%*	*6.4%*	36.7%	*24.3%*	*8.8%*	*1.4%*	*2.1%*
NC	*11.1%*	*8.3%*	48.9%	*33.2%*	*9.7%*	*4.2%*	*1.8%*
ND	*8.2%*	*6.2%*	44.6%	*27.2%*	*12.6%*	*3.4%*	*1.4%*
OH	*5.6%*	*6.0%*	42.4%	*29.2%*	*7.5%*	*4.1%*	*1.5%*
OK	*7.6%*	*5.2%*	55.6%	*43.3%*	*8.0%*	*2.6%*	*1.6%*
OR	*14.2%*	*8.4%*	49.0%	*31.3%*	*12.1%*	*4.4%*	*1.2%*
PA	*10.3%*	*5.5%*	41.2%	*29.4%*	*5.7%*	*3.0%*	*3.1%*
RI	*8.3%*	*9.5%*	30.7%	*22.4%*	*4.7%*	*2.1%*	*1.6%*
SC	*7.6%*	*8.5%*	50.6%	*35.6%*	*9.5%*	*3.0%*	*2.5%*
SD	*9.4%*	*10.0%*	43.9%	*26.0%*	*11.2%*	*4.5%*	*2.3%*
TN	*8.2%*	*4.0%*	54.9%	*40.1%*	*9.8%*	*4.1%*	*0.8%*
TX	*7.3%*	*4.4%*	60.7%	*43.0%*	*13.0%*	*3.1%*	*1.7%*
UT	*11.5%*	*10.6%*	52.3%	*33.4%*	*10.4%*	*4.9%*	*3.6%*
VT	*11.1%*	*10.7%*	41.5%	*23.0%*	*9.4%*	*4.5%*	*4.6%*
VA	*8.8%*	*6.3%*	43.8%	*32.9%*	*5.9%*	*3.1%*	*1.9%*
WA	*9.2%*	*4.2%*	41.8%	*25.0%*	*10.9%*	*3.0%*	*3.0%*
WV	*8.7%*	*6.9%*	47.8%	*37.4%*	*6.4%*	*2.4%*	*1.5%*
WI	*10.1%*	*7.9%*	39.2%	*23.4%*	*6.5%*	*6.5%*	*2.8%*
WY	*12.1%*	*9.8%*	51.4%	*31.2%*	*12.2%*	*4.1%*	*3.9%*

Table 3: Focus of Professional Development Activities In Last 3 Years (by state)

	Percent of teachers who participated in the past 3 years in professional development activities focusing on:[3]:									
	Teaching students with disabilities					Teaching limited English proficient students				
	All	For 8 hours or less	For 9-16 hours	For 17-32 hours	For 33 hours or more	All	For 8 hours or less	For 9-16 hours	For 17-32 hours	For 33 hours or more
Nat'l	**42.3%**	***25.5%***	***8.7%***	***3.8%***	***4.3%***	**27.9%**	***15.4%***	***4.9%***	***2.9%***	***4.7%***
AL	46.4%	*32.7%*	*8.0%*	*2.1%*	*3.5%*	24.5%	*20.1%*	*2.9%*	*0.9%*	*0.6%*
AK	39.2%	*19.8%*	*7.9%*	*5.3%*	*6.3%*	26.3%	*16.3%*	*4.3%*	*2.1%*	*3.6%*
AZ	37.9%	*23.7%*	*6.5%*	*2.7%*	*5.0%*	74.6%	*14.6%*	*18.5%*	*9.9%*	*31.7%*
AR	58.2%	*38.9%*	*9.3%*	*5.1%*	*5.0%*	27.8%	*19.6%*	*4.5%*	*1.3%*	*2.4%*
CA	38.3%	*22.2%*	*6.6%*	*4.5%*	*4.9%*	62.7%	*24.5%*	*12.5%*	*9.9%*	*15.7%*
CO	35.5%	*22.4%*	*7.4%*	*2.8%*	*2.8%*	43.3%	*23.1%*	*9.6%*	*6.5%*	*4.0%*
CT	44.0%	*31.2%*	*7.5%*	*3.3%*	*2.0%*	17.2%	*13.0%*	*1.7%*	*1.1%*	*1.4%*
DE	41.3%	*25.5%*	*7.5%*	*3.7%*	*4.6%*	12.1%	*7.4%*	*2.2%*	*1.8%*	*0.8%*
DC	41.2%	*17.1%*	*8.7%*	*4.7%*	*10.7%*	24.2%	*12.2%*	*2.7%*	*1.4%*	*8.0%*
FL	37.2%	*20.6%*	*6.7%*	*4.7%*	*5.2%*	37.2%	*11.5%*	*5.2%*	*6.0%*	*14.5%*
GA	42.8%	*22.9%*	*10.8%*	*5.1%*	*3.9%*	21.3%	*15.9%*	*2.2%*	*1.4%*	*1.8%*
HI	35.6%	*16.8%*	*10.1%*	*3.6%*	*5.0%*	23.0%	*13.8%*	*4.1%*	*2.4%*	*2.6%*
ID	32.3%	*17.7%*	*7.7%*	*4.0%*	*2.9%*	31.7%	*15.3%*	*8.5%*	*4.7%*	*3.3%*
IL	51.8%	*31.4%*	*12.0%*	*4.1%*	*4.3%*	19.1%	*13.9%*	*3.0%*	*1.4%*	*0.7%*
IN	36.7%	*24.5%*	*6.3%*	*2.6%*	*3.3%*	18.7%	*15.0%*	*2.1%*	*1.0%*	*0.6%*
IA	38.9%	*20.7%*	*10.2%*	*4.6%*	*3.5%*	16.5%	*10.8%*	*3.2%*	*1.4%*	*1.2%*
KS	37.8%	*23.6%*	*5.0%*	*4.7%*	*4.5%*	23.4%	*13.0%*	*3.3%*	*2.2%*	*4.9%*
KY	50.5%	*36.5%*	*7.7%*	*2.7%*	*3.7%*	10.1%	*9.1%*	*0.3%*	*0.6%*	*0.1%*
LA	33.8%	*19.3%*	*7.9%*	*2.3%*	*4.3%*	7.5%	*5.1%*	*0.9%*	*0.6%*	*0.9%*
ME	34.0%	*17.4%*	*7.4%*	*4.1%*	*5.1%*	7.4%	*4.5%*	*1.1%*	*0.8%*	*1.0%*
MD	50.4%	*32.6%*	*7.7%*	*5.7%*	*4.4%*	14.7%	*10.7%*	*2.3%*	*1.0%*	*0.7%*
MA	47.6%	*23.5%*	*12.0%*	*4.9%*	*7.3%*	31.7%	*10.8%*	*8.5%*	*4.9%*	*7.4%*
MI	36.9%	*22.3%*	*7.0%*	*3.3%*	*4.3%*	10.0%	*7.8%*	*0.3%*	*1.0%*	*0.8%*
MN	51.7%	*32.3%*	*9.4%*	*5.4%*	*4.5%*	27.9%	*20.1%*	*4.5%*	*2.1%*	*1.1%*
MS	39.1%	*27.0%*	*5.7%*	*2.8%*	*3.6%*	11.8%	*9.7%*	*1.1%*	*0.3%*	*0.6%*
MO	40.4%	*25.8%*	*8.2%*	*2.2%*	*4.2%*	15.9%	*13.0%*	*1.8%*	*0.6%*	*0.5%*
MT	31.2%	*18.2%*	*7.6%*	*1.8%*	*3.6%*	7.3%	*4.4%*	*1.5%*	*1.1%*	*0.2%*
NE	33.8%	*20.8%*	*7.5%*	*2.7%*	*2.9%*	10.3%	*7.2%*	*1.3%*	*0.3%*	*1.4%*
NV	39.8%	*21.6%*	*7.6%*	*5.7%*	*5.0%*	44.9%	*22.2%*	*11.7%*	*6.1%*	*5.0%*
NH	46.2%	*24.3%*	*11.1%*	*3.6%*	*7.2%*	7.6%	*3.5%*	*1.9%*	*1.3%*	*0.9%*
NJ	44.2%	*31.0%*	*6.4%*	*2.7%*	*4.0%*	16.1%	*13.0%*	*1.4%*	*0.3%*	*1.5%*
NM	39.5%	*22.5%*	*8.2%*	*5.0%*	*3.8%*	39.2%	*18.4%*	*10.9%*	*5.4%*	*4.5%*
NY	36.7%	*21.2%*	*8.8%*	*2.6%*	*4.1%*	14.7%	*9.5%*	*3.0%*	*1.0%*	*1.2%*
NC	40.7%	*23.2%*	*9.1%*	*3.1%*	*5.4%*	28.1%	*14.3%*	*6.5%*	*1.4%*	*5.9%*
ND	36.9%	*20.8%*	*7.2%*	*4.1%*	*4.9%*	8.1%	*4.3%*	*2.2%*	*0.5%*	*1.0%*
OH	37.3%	*23.9%*	*7.2%*	*2.1%*	*4.1%*	6.7%	*4.4%*	*1.3%*	*0.5%*	*0.4%*
OK	42.2%	*30.2%*	*6.0%*	*3.4%*	*2.6%*	21.2%	*17.0%*	*2.5%*	*1.0%*	*0.7%*
OR	36.5%	*21.1%*	*7.5%*	*3.6%*	*4.2%*	51.1%	*25.1%*	*8.5%*	*6.9%*	*10.7%*
PA	48.6%	*28.1%*	*10.8%*	*4.1%*	*5.6%*	20.8%	*15.2%*	*2.0%*	*0.9%*	*2.7%*
RI	36.2%	*20.3%*	*8.2%*	*3.9%*	*3.8%*	14.1%	*6.5%*	*3.0%*	*1.8%*	*2.8%*
SC	31.3%	*18.8%*	*7.1%*	*1.7%*	*3.6%*	21.2%	*17.9%*	*1.8%*	*0.6%*	*0.8%*
SD	33.9%	*18.9%*	*7.3%*	*2.8%*	*4.9%*	9.0%	*6.7%*	*0.9%*	*0.6%*	*0.8%*
TN	40.6%	*28.1%*	*7.6%*	*2.9%*	*2.0%*	14.4%	*11.5%*	*0.7%*	*1.5%*	*0.7%*
TX	54.5%	*32.2%*	*13.6%*	*5.1%*	*3.7%*	46.3%	*29.2%*	*9.0%*	*3.9%*	*4.2%*
UT	36.4%	*16.7%*	*8.9%*	*3.3%*	*7.5%*	36.5%	*17.5%*	*4.5%*	*5.3%*	*9.2%*
VT	41.0%	*21.7%*	*8.8%*	*3.9%*	*6.5%*	11.1%	*6.3%*	*1.9%*	*0.8%*	*2.0%*
VA	44.1%	*27.5%*	*9.6%*	*3.8%*	*3.2%*	16.5%	*11.6%*	*1.4%*	*1.8%*	*1.7%*
WA	35.3%	*22.3%*	*4.8%*	*3.3%*	*4.8%*	31.8%	*19.4%*	*5.1%*	*3.9%*	*3.4%*
WV	40.8%	*23.0%*	*9.7%*	*4.1%*	*4.0%*	6.8%	*4.9%*	*1.4%*	*0.1%*	*0.4%*
WI	35.3%	*22.2%*	*5.3%*	*3.3%*	*4.5%*	13.3%	*9.1%*	*1.6%*	*0.5%*	*2.1%*
WY	35.8%	*20.4%*	*7.7%*	*5.2%*	*2.5%*	20.5%	*14.1%*	*4.2%*	*1.1%*	*1.1%*

Table 4: Usefulness of Professional Development in Last 12 Months (by state)

	How useful to teachers were professional development activities attended within the last 12 months with the following foci?									
	The content of the subject(s) they teach					Uses of computers for instruction				
	Avg	*Not useful = 1*	*Somewhat useful = 2*	*Useful = 3*	*Very Useful = 4*	**Avg**	*Not useful = 1*	*Somewhat useful = 2*	*Useful = 3*	*Very Useful = 4*
Nat'l	**2.93**	***1.9%***	***28.3%***	***44.5%***	***25.4%***	**2.85**	***4.1%***	***30.5%***	***41.6%***	***23.7%***
AL	3.05	*0.6%*	*26.4%*	*40.7%*	*32.4%*	2.89	*1.7%*	*33.6%*	*38.1%*	*26.5%*
AK	3.03	*1.2%*	*24.1%*	*45.5%*	*29.2%*	2.78	*4.4%*	*34.5%*	*39.5%*	*21.7%*
AZ	2.91	*1.8%*	*30.2%*	*43.1%*	*24.8%*	2.74	*5.9%*	*34.5%*	*38.8%*	*20.8%*
AR	3.01	*0.7%*	*27.6%*	*41.2%*	*30.4%*	2.80	*3.8%*	*31.0%*	*46.5%*	*18.7%*
CA	2.83	*2.7%*	*33.9%*	*40.7%*	*22.7%*	2.80	*7.0%*	*28.5%*	*41.5%*	*23.0%*
CO	2.98	*1.7%*	*24.8%*	*46.9%*	*26.6%*	2.78	*4.6%*	*35.1%*	*38.3%*	*22.1%*
CT	2.83	*3.5%*	*32.5%*	*41.3%*	*22.7%*	2.77	*6.1%*	*31.8%*	*40.8%*	*21.3%*
DE	2.75	*3.5%*	*38.0%*	*38.7%*	*19.9%*	2.72	*6.0%*	*35.9%*	*38.5%*	*19.6%*
DC	3.07	*1.6%*	*24.3%*	*40.1%*	*34.0%*	2.96	*4.5%*	*28.8%*	*33.3%*	*33.4%*
FL	2.96	*1.5%*	*27.1%*	*45.1%*	*26.3%*	2.94	*4.5%*	*25.9%*	*41.3%*	*28.3%*
GA	3.01	*1.9%*	*27.1%*	*39.4%*	*31.5%*	2.97	*4.1%*	*23.8%*	*43.3%*	*28.8%*
HI	2.90	*1.4%*	*31.1%*	*43.8%*	*23.8%*	2.87	*3.9%*	*29.5%*	*42.3%*	*24.3%*
ID	3.10	*1.2%*	*20.7%*	*44.4%*	*33.7%*	2.90	*4.3%*	*28.8%*	*40.0%*	*27.0%*
IL	2.97	*1.8%*	*28.4%*	*40.9%*	*28.9%*	2.92	*1.5%*	*31.6%*	*40.1%*	*26.9%*
IN	2.86	*1.9%*	*32.7%*	*43.6%*	*21.9%*	2.73	*3.3%*	*34.9%*	*47.5%*	*14.3%*
IA	2.92	*1.6%*	*28.1%*	*47.1%*	*23.1%*	2.77	*4.7%*	*32.4%*	*43.8%*	*19.1%*
KS	2.89	*3.3%*	*25.8%*	*48.9%*	*22.0%*	2.75	*5.2%*	*32.0%*	*45.6%*	*17.1%*
KY	2.96	*0.5%*	*27.5%*	*47.3%*	*24.7%*	2.92	*2.5%*	*28.2%*	*44.0%*	*25.2%*
LA	3.01	*1.0%*	*24.8%*	*46.4%*	*27.9%*	2.99	*3.1%*	*26.2%*	*39.4%*	*31.3%*
ME	3.06	*2.0%*	*21.6%*	*44.4%*	*32.0%*	2.73	*5.8%*	*33.8%*	*41.6%*	*18.8%*
MD	2.90	*2.2%*	*31.6%*	*39.7%*	*26.4%*	2.90	*4.4%*	*28.9%*	*39.0%*	*27.7%*
MA	2.91	*2.5%*	*31.1%*	*39.8%*	*26.6%*	2.86	*2.6%*	*33.5%*	*38.9%*	*25.0%*
MI	2.84	*3.5%*	*31.5%*	*43.0%*	*22.0%*	2.72	*3.7%*	*39.1%*	*39.1%*	*18.2%*
MN	2.95	*1.9%*	*27.5%*	*44.6%*	*26.0%*	2.85	*3.6%*	*32.4%*	*39.7%*	*24.3%*
MS	2.94	*3.7%*	*26.4%*	*42.2%*	*27.7%*	2.99	*4.0%*	*23.4%*	*42.2%*	*30.4%*
MO	3.03	*0.9%*	*22.0%*	*50.1%*	*27.1%*	2.93	*2.4%*	*27.1%*	*45.5%*	*25.0%*
MT	3.05	*0.9%*	*22.5%*	*47.1%*	*29.4%*	2.88	*2.4%*	*30.4%*	*43.9%*	*23.3%*
NE	2.89	*1.1%*	*31.0%*	*45.3%*	*22.6%*	2.84	*2.8%*	*31.0%*	*46.2%*	*20.1%*
NV	2.91	*1.9%*	*29.1%*	*45.5%*	*23.5%*	2.86	*3.2%*	*31.5%*	*41.1%*	*24.2%*
NH	2.95	*1.8%*	*26.7%*	*46.0%*	*25.6%*	2.68	*5.9%*	*35.8%*	*43.2%*	*15.1%*
NJ	2.91	*0.7%*	*29.1%*	*48.4%*	*21.8%*	2.90	*2.1%*	*31.2%*	*41.7%*	*25.0%*
NM	2.89	*3.5%*	*29.8%*	*40.3%*	*26.4%*	2.80	*4.8%*	*34.0%*	*37.7%*	*23.6%*
NY	2.89	*2.0%*	*29.4%*	*46.5%*	*22.1%*	2.92	*3.2%*	*30.4%*	*38.0%*	*28.4%*
NC	2.93	*1.6%*	*26.9%*	*48.4%*	*23.1%*	2.86	*5.1%*	*27.7%*	*43.7%*	*23.5%*
ND	2.94	*0.9%*	*27.0%*	*49.7%*	*22.4%*	2.89	*2.1%*	*30.8%*	*42.6%*	*24.5%*
OH	2.97	*1.1%*	*25.6%*	*48.2%*	*25.1%*	2.81	*2.5%*	*32.2%*	*47.3%*	*17.9%*
OK	2.90	*1.4%*	*30.1%*	*45.3%*	*23.2%*	2.75	*5.2%*	*33.9%*	*42.0%*	*18.9%*
OR	2.97	*1.5%*	*25.8%*	*46.8%*	*25.8%*	2.78	*4.4%*	*36.6%*	*35.6%*	*23.5%*
PA	2.92	*2.6%*	*27.7%*	*44.8%*	*24.9%*	2.78	*5.6%*	*31.3%*	*42.3%*	*20.8%*
RI	2.87	*3.5%*	*25.4%*	*51.3%*	*19.8%*	2.80	*4.7%*	*27.4%*	*51.1%*	*16.8%*
SC	2.98	*1.3%*	*27.8%*	*42.7%*	*28.2%*	3.02	*1.4%*	*26.7%*	*40.0%*	*31.9%*
SD	3.03	*1.4%*	*21.9%*	*48.6%*	*28.2%*	2.88	*2.6%*	*31.4%*	*41.5%*	*24.5%*
TN	2.91	*2.7%*	*28.5%*	*43.6%*	*25.2%*	2.83	*1.9%*	*34.1%*	*42.6%*	*21.4%*
TX	2.95	*1.3%*	*28.1%*	*45.3%*	*25.3%*	2.82	*4.9%*	*30.2%*	*42.6%*	*22.3%*
UT	3.06	*1.7%*	*20.0%*	*48.5%*	*29.8%*	2.87	*3.8%*	*28.7%*	*44.1%*	*23.4%*
VT	3.11	*0.7%*	*20.0%*	*47.4%*	*31.9%*	2.80	*6.1%*	*32.7%*	*36.8%*	*24.5%*
VA	2.92	*2.8%*	*27.6%*	*44.2%*	*25.4%*	2.85	*6.2%*	*27.6%*	*41.1%*	*25.1%*
WA	2.97	*2.8%*	*22.2%*	*49.7%*	*25.2%*	2.81	*1.7%*	*37.0%*	*39.6%*	*21.7%*
WV	2.95	*2.9%*	*24.8%*	*46.5%*	*25.8%*	2.86	*4.7%*	*29.3%*	*41.4%*	*24.6%*
WI	3.06	*0.7%*	*23.6%*	*45.1%*	*30.6%*	2.76	*4.1%*	*35.6%*	*40.3%*	*20.0%*
WY	3.02	*1.1%*	*23.3%*	*48.3%*	*27.3%*	2.83	*4.2%*	*29.5%*	*45.7%*	*20.6%*

How useful to teachers were professional development activities attended within the last 12 months with the following foci?

	Reading instruction					Student discipline and management in the classroom				
	Avg	*Not useful = 1*	*Somewhat useful = 2*	*Useful = 3*	*Very Useful = 4*	**Avg**	*Not useful = 1*	*Somewhat useful = 2*	*Useful = 3*	*Very Useful = 4*
Nat'l	**2.89**	***4.4%***	***27.9%***	***42.4 %***	***25.3%***	**2.75**	***5.2%***	***33.3%***	***43.3 %***	***18.3%***
AL	2.93	*4.5%*	*28.0%*	*37.5%*	*30.0%*	2.77	*4.3%*	*34.8%*	*40.8%*	*20.1%*
AK	2.84	*6.7%*	*30.1%*	*35.9%*	*27.3%*	2.72	*7.4%*	*34.2%*	*37.9%*	*20.6%*
AZ	2.83	*3.1%*	*34.2%*	*39.0%*	*23.7%*	2.76	*5.9%*	*32.5%*	*41.5%*	*20.1%*
AR	2.98	*4.2%*	*22.5%*	*43.8%*	*29.4%*	2.70	*5.0%*	*33.6%*	*48.3%*	*13.2%*
CA	2.91	*3.1%*	*29.1%*	*41.7%*	*26.1%*	2.78	*6.7%*	*31.7%*	*38.7%*	*22.9%*
CO	2.83	*3.1%*	*29.4%*	*48.7%*	*18.8%*	2.85	*2.8%*	*28.4%*	*50.3%*	*18.6%*
CT	2.75	*9.3%*	*30.6%*	*35.5%*	*24.5%*	2.49	*11.2%*	*40.3%*	*36.9%*	*11.5%*
DE	2.66	*7.5%*	*35.8%*	*39.7%*	*17.0%*	2.62	*8.4%*	*34.5%*	*43.4%*	*13.7%*
DC	3.05	*2.6%*	*22.9%*	*41.3%*	*33.2%*	2.77	*6.1%*	*37.8%*	*28.9%*	*27.3%*
FL	2.91	*4.9%*	*27.3%*	*39.9%*	*28.0%*	2.82	*6.5%*	*30.0%*	*38.9%*	*24.6%*
GA	3.01	*3.1%*	*24.4%*	*40.9%*	*31.6%*	2.73	*4.3%*	*34.4%*	*45.3%*	*16.0%*
HI	2.84	*6.4%*	*26.4%*	*44.6%*	*22.7%*	2.85	*3.6%*	*24.5%*	*54.9%*	*17.0%*
ID	3.00	*3.9%*	*24.4%*	*39.3%*	*32.4%*	2.93	*3.7%*	*24.6%*	*46.6%*	*25.1%*
IL	2.90	*4.3%*	*29.3%*	*38.5%*	*27.8%*	2.72	*4.8%*	*36.3%*	*41.2%*	*17.7%*
IN	2.79	*5.3%*	*34.3%*	*36.0%*	*24.4%*	2.50	*6.5%*	*47.6%*	*35.2%*	*10.7%*
IA	2.73	*6.7%*	*33.6%*	*40.0%*	*19.8%*	2.73	*4.8%*	*31.7%*	*48.9%*	*14.7%*
KS	2.76	*5.0%*	*32.5%*	*44.7%*	*17.9%*	2.66	*6.7%*	*34.7%*	*44.5%*	*14.1%*
KY	2.86	*4.1%*	*28.7%*	*43.8%*	*23.3%*	2.76	*5.2%*	*32.0%*	*44.0%*	*18.8%*
LA	2.95	*4.5%*	*25.6%*	*40.4%*	*29.5%*	2.89	*3.7%*	*28.9%*	*42.3%*	*25.1%*
ME	2.93	*5.5%*	*24.6%*	*40.8%*	*29.0%*	2.71	*8.4%*	*33.3%*	*37.8%*	*20.6%*
MD	2.91	*5.2%*	*26.9%*	*39.5%*	*28.4%*	2.71	*8.9%*	*35.0%*	*32.4%*	*23.7%*
MA	2.90	*4.5%*	*28.4%*	*39.3%*	*27.8%*	2.72	*6.9%*	*35.0%*	*37.1%*	*21.1%*
MI	2.84	*4.2%*	*26.9%*	*49.1%*	*19.8%*	2.70	*7.4%*	*31.2%*	*44.9%*	*16.5%*
MN	2.87	*5.3%*	*27.6%*	*42.2%*	*24.9%*	2.75	*4.3%*	*32.3%*	*47.2%*	*16.2%*
MS	2.97	*3.2%*	*26.4%*	*41.0%*	*29.4%*	2.82	*7.4%*	*27.5%*	*40.9%*	*24.3%*
MO	2.97	*3.8%*	*23.2%*	*44.8%*	*28.1%*	2.84	*4.9%*	*25.4%*	*50.5%*	*19.1%*
MT	2.93	*3.6%*	*23.7%*	*48.8%*	*23.9%*	2.87	*3.3%*	*28.9%*	*44.9%*	*22.9%*
NE	2.90	*3.9%*	*26.7%*	*44.9%*	*24.5%*	2.73	*4.1%*	*35.4%*	*44.3%*	*16.2%*
NV	2.92	*5.0%*	*25.7%*	*41.3%*	*28.0%*	2.82	*6.0%*	*28.1%*	*43.5%*	*22.4%*
NH	2.89	*3.0%*	*29.7%*	*42.4%*	*24.9%*	2.71	*2.8%*	*40.4%*	*39.6%*	*17.1%*
NJ	2.92	*3.3%*	*24.9%*	*48.0%*	*23.8%*	2.68	*6.1%*	*35.4%*	*43.0%*	*15.6%*
NM	2.88	*6.7%*	*26.6%*	*38.4%*	*28.4%*	2.72	*8.1%*	*36.9%*	*29.8%*	*25.1%*
NY	2.94	*4.3%*	*23.3%*	*46.3%*	*26.1%*	2.76	*3.6%*	*35.6%*	*42.3%*	*18.5%*
NC	2.80	*7.6%*	*25.3%*	*45.9%*	*21.1%*	2.73	*7.6%*	*31.3%*	*41.2%*	*19.9%*
ND	2.84	*2.9%*	*32.4%*	*42.4%*	*22.3%*	2.83	*1.9%*	*30.6%*	*49.6%*	*17.9%*
OH	2.91	*2.1%*	*31.3%*	*40.6%*	*26.1%*	2.72	*3.4%*	*35.2%*	*47.7%*	*13.6%*
OK	2.91	*4.3%*	*24.0%*	*48.3%*	*23.4%*	2.68	*4.8%*	*35.2%*	*46.8%*	*13.2%*
OR	2.77	*4.9%*	*30.8%*	*46.6%*	*17.7%*	2.85	*3.0%*	*28.9%*	*48.3%*	*19.7%*
PA	2.80	*6.5%*	*29.8%*	*41.4%*	*22.3%*	2.66	*6.2%*	*36.3%*	*42.8%*	*14.7%*
RI	2.89	*5.6%*	*22.8%*	*49.0%*	*22.6%*	2.69	*10.1%*	*30.1%*	*40.1%*	*19.7%*
SC	2.87	*4.7%*	*26.4%*	*45.7%*	*23.3%*	2.79	*4.5%*	*29.8%*	*48.1%*	*17.7%*
SD	2.96	*3.3%*	*23.6%*	*47.3%*	*25.8%*	2.84	*2.4%*	*30.2%*	*48.7%*	*18.8%*
TN	2.74	*5.1%*	*33.4%*	*43.8%*	*17.8%*	2.71	*5.0%*	*34.1%*	*45.9%*	*14.9%*
TX	2.91	*2.9%*	*27.9%*	*44.5%*	*24.7%*	2.75	*2.9%*	*35.1%*	*46.3%*	*15.6%*
UT	3.03	*2.3%*	*21.5%*	*47.3%*	*28.8%*	2.92	*4.8%*	*22.1%*	*49.8%*	*23.4%*
VT	3.09	*1.8%*	*20.8%*	*44.5%*	*32.9%*	2.73	*4.6%*	*37.0%*	*39.3%*	*19.2%*
VA	2.90	*4.4%*	*29.1%*	*38.0%*	*28.4%*	2.66	*7.5%*	*35.6%*	*40.8%*	*16.2%*
WA	2.80	*3.9%*	*31.8%*	*44.6%*	*19.7%*	2.87	*5.5%*	*27.9%*	*40.8%*	*25.9%*
WV	2.95	*5.5%*	*23.7%*	*41.0%*	*29.8%*	2.74	*4.6%*	*33.3%*	*45.8%*	*16.3%*
WI	2.87	*4.8%*	*29.3%*	*40.1%*	*25.8%*	2.90	*1.9%*	*28.6%*	*46.7%*	*22.8%*
WY	2.84	*4.6%*	*29.3%*	*43.6%*	*22.4%*	2.73	*6.4%*	*32.9%*	*41.9%*	*18.7%*

Table 5: Usefulness of Professional Development in Last 3 Years (by state)

	How useful to teachers were professional development activities attended within the last 3 years with the following foci?[3]:									
	Teaching students with disabilities					Teaching limited English proficient students				
	Avg	Not useful = 1	Somewhat useful = 2	Useful = 3	Very Useful = 4	Avg	Not useful = 1	Somewhat useful = 2	Useful = 3	Very Useful = 4
Nat'l	**2.79**	**4.3%**	**32.6%**	**42.9%**	**20.3%**	**2.70**	**7.9%**	**34.6%**	**37.4%**	**20.2%**
AL	2.75	5.3%	33.5%	42.2%	18.9%	2.55	14.2%	35.6%	31.5%	18.7%
AK	2.76	3.6%	35.0%	43.8%	17.7%	2.74	6.1%	34.1%	39.9%	20.0%
AZ	2.76	5.4%	35.0%	38.1%	21.5%	2.68	7.0%	38.0%	35.1%	19.9%
AR	2.70	4.6%	37.4%	41.4%	16.6%	2.55	10.5%	39.9%	33.9%	15.7%
CA	2.74	4.0%	36.5%	40.8%	18.7%	2.77	5.8%	33.0%	40.0%	21.3%
CO	2.75	2.3%	34.7%	48.2%	14.8%	2.70	6.3%	35.7%	40.1%	17.9%
CT	2.64	5.9%	40.3%	37.8%	16.0%	2.54	17.6%	29.9%	33.8%	18.7%
DE	2.73	6.1%	38.5%	32.1%	23.3%	2.69	14.5%	24.8%	38.0%	22.7%
DC	2.94	6.4%	28.1%	30.1%	35.4%	2.81	5.9%	38.8%	24.0%	31.3%
FL	2.83	4.5%	36.0%	32.1%	27.5%	2.74	10.8%	28.1%	37.2%	23.9%
GA	2.86	3.9%	30.0%	42.9%	23.2%	2.62	11.0%	30.8%	43.4%	14.9%
HI	2.91	2.0%	29.7%	44.0%	24.4%	2.64	7.1%	35.9%	42.4%	14.6%
ID	2.86	5.5%	28.9%	40.2%	25.4%	2.76	4.9%	38.3%	32.8%	24.1%
IL	2.81	5.3%	28.9%	44.8%	20.9%	2.65	8.6%	37.8%	33.8%	19.7%
IN	2.71	3.8%	36.7%	44.6%	14.9%	2.38	14.2%	45.8%	27.7%	12.3%
IA	2.74	2.1%	35.2%	49.4%	13.3%	2.61	6.9%	46.1%	26.4%	20.6%
KS	2.70	4.8%	36.0%	43.9%	15.3%	2.67	8.9%	34.0%	38.6%	18.5%
KY	2.85	3.2%	28.0%	48.9%	19.9%	2.23	24.1%	34.0%	36.5%	5.5%
LA	2.95	6.4%	24.1%	37.5%	32.0%	2.48	14.0%	45.9%	17.8%	22.3%
ME	2.83	3.0%	32.2%	43.5%	21.4%	2.75	12.9%	21.6%	42.8%	22.7%
MD	2.87	8.2%	27.8%	32.6%	31.4%	2.45	20.4%	33.0%	27.7%	18.9%
MA	2.70	7.7%	35.9%	34.7%	21.6%	2.67	6.1%	37.1%	40.1%	16.6%
MI	2.75	7.8%	29.3%	43.4%	19.5%	2.50	13.0%	37.7%	35.2%	14.1%
MN	2.82	2.9%	29.4%	50.6%	17.1%	2.74	3.6%	37.3%	40.5%	18.6%
MS	2.83	5.6%	32.0%	36.1%	26.2%	2.74	9.0%	35.0%	28.6%	27.3%
MO	2.88	3.1%	26.2%	50.9%	19.9%	2.60	13.5%	32.1%	35.4%	19.0%
MT	2.75	4.2%	32.6%	47.5%	15.7%	2.58	12.4%	34.5%	36.2%	16.9%
NE	2.82	4.4%	28.9%	47.5%	19.2%	2.60	11.1%	35.3%	36.2%	17.5%
NV	2.73	4.8%	36.6%	39.0%	19.6%	2.75	6.3%	35.4%	35.4%	22.9%
NH	2.86	3.2%	31.2%	42.0%	23.6%	2.73	0.0%	41.2%	44.2%	14.6%
NJ	2.81	2.1%	31.3%	50.1%	16.5%	2.55	9.1%	39.9%	38.2%	12.8%
NM	2.76	5.6%	38.5%	30.4%	25.5%	2.75	5.9%	34.8%	38.1%	21.2%
NY	2.82	2.6%	32.4%	45.6%	19.5%	2.70	3.9%	41.8%	34.8%	19.5%
NC	2.71	5.4%	38.4%	35.8%	20.4%	2.70	10.0%	32.2%	35.2%	22.6%
ND	2.98	1.8%	25.2%	46.2%	26.7%	2.57	15.4%	34.9%	26.9%	22.8%
OH	2.86	3.8%	28.4%	45.7%	22.1%	2.41	11.1%	48.2%	29.7%	11.1%
OK	2.69	6.7%	33.1%	44.8%	15.5%	2.42	15.4%	40.0%	32.2%	12.4%
OR	2.93	1.3%	27.3%	48.4%	23.0%	2.85	3.9%	31.3%	40.6%	24.2%
PA	2.79	4.1%	35.2%	38.2%	22.6%	2.65	10.5%	31.5%	41.0%	17.0%
RI	2.83	3.6%	33.8%	38.7%	23.9%	2.82	7.8%	21.2%	52.5%	18.4%
SC	2.88	2.4%	30.1%	44.8%	22.7%	2.58	10.2%	33.2%	44.8%	11.8%
SD	2.77	3.2%	30.5%	52.2%	14.1%	2.45	12.3%	37.7%	42.9%	7.1%
TN	2.69	7.2%	31.2%	46.7%	14.9%	2.48	14.5%	36.1%	36.8%	12.6%
TX	2.77	3.4%	33.5%	46.2%	16.9%	2.80	5.0%	34.0%	37.5%	23.6%
UT	2.92	3.3%	23.9%	50.1%	22.7%	2.72	8.0%	33.0%	38.1%	20.9%
VT	2.85	3.9%	29.1%	45.6%	21.4%	2.80	3.9%	38.7%	31.2%	26.2%
VA	2.80	4.9%	28.6%	47.9%	18.6%	2.68	11.8%	32.1%	32.0%	24.0%
WA	2.89	4.4%	30.8%	36.3%	28.5%	2.68	8.6%	33.5%	39.2%	18.8%
WV	2.88	3.5%	26.4%	49.2%	20.9%	2.23	17.1%	46.7%	32.3%	3.9%
WI	2.87	3.0%	33.3%	37.8%	26.0%	2.68	7.4%	35.6%	38.4%	18.6%
WY	2.83	4.7%	26.8%	49.2%	19.3%	2.73	7.1%	36.4%	33.3%	23.2%

Endnotes

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[8] http://www.education.ky.gov/kde/administrative+resources/school+improvement/

[9] https://applications.education.ky.gov/ProfDev/Default.aspx

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