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## State Policies to Improve Teacher Professional Development

### Executive Summary

Each year, considerable resources are spent on professional development to build teacher knowledge and skills. Yet not much is known about its impact on student achievement. Research confirms that professional development can affect teacher practice, but research has yet to confirm if those changes in practice improve student learning. Unfortunately, recent studies indicate that most teachers do not believe the professional development they receive is helpful or relevant for improving classroom instruction.<sup>1</sup>

State policies have traditionally left professional development decisions to school districts, providers, and teachers. Although states require teachers to complete a certain amount of professional development for license renewal, they do not typically regulate the quality or the relevance of the professional development completed. State policies focus almost exclusively on the amount of time required and the types of opportunities that can be used for license renewal. States rarely require the collection of data that could help determine whether professional development improves student learning.

To enhance the quality of professional development and help ensure the investments made in professional development improve student learning, governors can lead efforts to develop new models of professional development based on what limited research indicates would improve both the quality and impact of professional development. Specifically, states should:

- Gather and use student achievement data to assess the effectiveness of professional development;
- Use teacher evaluations and student learning data to create individualized professional development plans for teachers;
- Establish research-based state standards to create a vision for high-quality professional development; and
- Create an incentive-driven professional development initiative for teachers to acquire advanced skills.

### What Professional Development Research Reveals

In 2007, the National Center for Education Evaluation and Regional Assistance reviewed 1,300 studies examining the impact professional development has on student achievement; only nine of the studies were methodologically rigorous enough to draw valid and reliable conclusions. The findings from the nine studies indicate that quality professional development *can* improve both teacher practice and student achievement.<sup>2</sup>

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The researchers identified common elements of professional development that affect teacher practice and improve student achievement.<sup>3</sup>

- Professional development that lasts for a minimum of 14 hours shows a positive and significant impact on student achievement.<sup>4</sup>
- High-quality professional development is ongoing and affords teachers time to practice what they have learned and receive feedback on how well they are implementing what they have learned.<sup>5</sup>
- High-quality professional development that is connected to school and district goals for student learning is more likely to improve student achievement.<sup>6</sup>
- Professional development that is focused on improving a teacher's content knowledge is more likely to improve student achievement.<sup>7</sup>
- Professional development decisions should be driven by data to determine the needs of teachers and determine the effects of the training on student learning.<sup>8</sup>

### **The Imperative to Improve**

While little is known about the impact professional development has on student achievement, the amount spent annually on professional development is estimated at \$9 billion.<sup>9</sup> Since Congress passed the American Recovery and Reinvestment Act in early 2009, states have used stimulus funds to increase the amount of professional development for teachers. However, most teachers do not believe the professional development they complete is helpful or relevant to their practice in the classroom.<sup>10</sup> They find that it does not meet their individual needs. Nor does it include critical follow-up or the school leadership support needed to implement the strategies covered in professional development sessions.<sup>11</sup>

Professional development generally lacks the fundamental elements necessary to ensure student learning is affected. A recently released study from the National Staff Development Council examined teacher professional development options. The review indicated that the duration and intensity of the professional development offered to the nation's teachers is insufficient to affect instruction and student learning.<sup>12</sup>

Deficits exist with regard to the content and delivery of professional development, and continuing large investments in this system may not be justified unless improvements are made based on the limited research that is available. The deficits include:

- A lack of teacher evaluation and student performance data to drive professional development decisions;
- A lack of effort to individualize teacher professional development;<sup>13</sup>
- A lack of state standards for high-quality professional development; and
- Insufficient incentives to encourage teacher participation in additional professional development beyond the minimum required for license renewal.

### ***A Lack of Data to Drive Professional Development Decisions***

Most professional development does not include the collection of data that could provide information on the impact professional development has on student learning. Data collected on professional development often focuses on teachers' perceptions of it and its *perceived* usefulness. Little follow-up data are collected to solicit information from teachers about whether the skills and knowledge taught are useful in practice. Rarely are follow-up data collected to determine whether student learning is affected by changes in teacher practice. If such data are collected, it is not

typically compared with other student learning data that could indicate whether teacher perceptions about professional development are accurate.

#### ***A Lack of Effort to Individualize Teacher Professional Development***

Most states and districts focus on selecting professional development opportunities for all teachers. The selection process largely ignores research findings that indicate teacher effectiveness varies as much within a school as it does among schools.<sup>14</sup> Just as the learning needs of students vary, so, too, do the learning needs of teachers.<sup>15</sup>

Professional development provided by states and districts typically is designed as a single session on a topic selected by a local school district or the state education agency. Although data might be used to identify the topic, large-scale professional development delivered to large numbers of teachers at one time ignores what is known about high-quality professional development. Professional development should primarily meet the individual needs of teachers. States and school districts design professional development this way because it is cost efficient and enables them to more easily take advantage of professional development days found in teacher contracts. Targeting professional development to groups of teachers within a school is good practice if teacher needs are similar.

Not all professional development is delivered by local school districts and state education agencies. Many teachers select their own professional development. In most states, teacher recertification is tied, in part, to the accumulation of continuing education credits or a certain number of hours of professional development. Self-selected professional development can take many forms, such as conference attendance, university coursework, and singular professional development sessions. Although teachers are likely to select professional development opportunities that meet their individual needs, no state requires that student learning data be used to guide their choices.

#### ***A Lack of State Standards for High-Quality Professional Development***

Some states have established standards for professional development in order to improve its content, focus, and relevance, but many have not. State standards based on available research are necessary to help ensure that investments in professional development are rooted in the practices research indicates are most effective. Research-based standards afford states the opportunity to better ensure that the professional development delivered to teachers is of high quality and is intense enough to improve the likelihood that the training will positively affect student achievement.

#### ***Insufficient Incentives to Drive Additional Professional Development for Teachers***

Current professional development is largely a market-driven system where teachers decide what they want or need. Decisions about professional development instead should be driven by student learning data and data collected from teacher evaluations. Teachers can be incentivized to complete additional opportunities that train them to become coaches, mentors, and teacher leaders. This type of professional development is similar to the kind found in school districts and states with career ladders that enable teachers to assume additional roles and responsibilities outside their classroom while maintaining their primary role as a classroom teacher.<sup>16</sup> Independent evaluations of **Arizona**'s career ladder initiative indicate that students taught by teachers on career ladders outperform students taught by teachers not on career ladders.<sup>17</sup>

#### **How Governors Can Drive Improvements in Teacher Professional Development**

Some states have sought to improve the quality of professional development by pursuing select strategies. What is needed, however, are systemic, research-based changes in the way professional development is selected, delivered, and evaluated. Implementing these changes will help produce sustainable improvements in teacher professional practice and student learning.

Governors can drive improvements in teacher professional development by changing state licensure regulations to require professional development that is tied to research-based standards. Governors can also work to improve the quality of professional development by requiring evaluations that measure whether professional development affects student learning. Governors should work to implement the following recommendations:

- Gather and use student achievement data to assess the effectiveness of professional development;
- Use teacher evaluations and student learning data to create individualized professional development plans for teachers;
- Establish research-based state standards to create a vision for high-quality professional development; and
- Create an incentive-driven professional development initiative for teachers to acquire advanced skills.

#### ***Gather and Use Data to Assess the Effectiveness of Professional Development***

Governors should lead efforts to develop robust data systems so information on teachers and the classes they teach can be collected and used to assess the quality of professional development. These data systems should be linked to information on student learning and the professional development a teacher receives. The linked data can help state leaders determine the impact of professional development. The linked data can also help states make funding decisions to improve efficiency and control costs.

With professional development offerings most often designed and delivered locally, challenges exist for states in terms of evaluating whether the professional development a teacher receives is having an effect on teaching practice and student achievement. According to the Data Quality Campaign, all states track teacher certification or endorsement by grade or subject, but only 12 states link the information with student assessment and course-taking data at the elementary, middle, and high school levels.<sup>18</sup> Most states do not collect or maintain information on the professional development teachers complete beyond ensuring sufficient clock hours are taken for recertification.

To improve the professional development experience for teachers, data must be collected that detail what professional development a teacher has completed. These data should be linked to student learning data to determine the impact on student learning. **Delaware** has developed a Professional Development Management System to register, manage, and track professional development offered and received by educators within the state. The system is integrated into the state's licensure database to record the professional development completed in order to ensure renewal credits are documented.

In addition to the information a statewide database could house, states could require that local expenditures for professional development include funding for program evaluation to determine how student learning is affected. This could be done through formal program evaluation. Alternatively, states could require teachers to conduct action research<sup>19</sup> to demonstrate the impact of professional development on student learning. **Delaware** requires teachers to conduct action research as part of the professional development activities necessary to receive additional compensation.<sup>20</sup> Requiring research on the teacher's part provides data that can be used to ascertain the impact certain professional development has on both teacher practice and student learning. State leaders can then use these data to make strategic decisions about future investments. Evaluation requirements also enable states to take the lead on providing the data for researchers to continue to study the effects of professional development, an important step in any effort to continuously improve the professional development experience for teachers.

***Use Teacher Evaluations and Student Learning Data to Create Individualized Professional Development Plans for Teachers***

Governors should lead efforts to require meaningful evaluations at least annually for teachers. Evaluations should include classroom observations and should be used to identify teacher-specific professional development needs in subject content and instructional strategies.

Efforts to tailor professional development to the specific needs of teachers can only occur if teachers are evaluated regularly. Currently, only 14 states require annual teacher evaluations.<sup>21</sup> Only 28 states require classroom observation to be part of the teacher evaluation process.<sup>22</sup> Evaluations, along with other data, should be used to determine what type of professional development will most benefit teachers and their students.<sup>23</sup> Using evaluation data to determine the individual needs of teachers is very important for new teachers and teachers assigned to teach in hard-to-staff schools with unique and significant needs.

In **New Mexico**, teachers work with their principal to create an annual Professional Development Plan (PDP) with learning goals, activities, and measurable objectives based on their evaluation. The state has a three-tier licensure structure. To move to a more advanced level, teachers must meet certain prerequisites, including submission of a Professional Development Dossier (PDD). The PDD is a collection of documents indicating that a teacher has met or exceeded state competencies in instruction, student learning, and professional learning as demonstrated by the teacher's classroom data. The dossier is verified locally by school districts. Experienced, state-level educators also review the dossier to ensure state competencies are met. The state provides guidelines, templates, and resources to help teachers collect evidence for the dossier.

Individual needs for professional development are of special concern for new teachers and teachers in hard-to-staff schools. Other than the various mentoring programs operating nationwide, new teachers rarely receive professional development that supports their unique needs. About 30 states require mentoring for new teachers. Only four states—**California, Delaware, Iowa, and North Carolina**—have a state-financed program that serves teachers for more than one year.

Teachers who work with students in hard-to-staff schools where students are behind academically also require unique professional development and supports.<sup>24</sup> In particular, these teachers require professional development that improves their ability to help students who are behind and to teach content to diverse groups of students. Most states have invested both federal and state dollars to assist teachers in high-needs schools. Federal Title I and Title II (Part A) provide funds to bolster professional development opportunities in schools serving high-poverty populations; however, data are needed to ensure the professional development being offered improves the academic performance of students in hard-to-staff schools.

***Set Research-Based State Standards to Create a Vision for High-Quality Professional Development***

Governors should encourage the development of rigorous, research-based standards for professional development. The standards should aim to improve the quality of offerings and delivery with an emphasis on providing continuous, job-embedded professional development that includes follow-up for teachers—all important elements necessary to improve the likelihood that professional development will positively affect student achievement.

Ensuring that professional development is of high quality requires standards for local school districts and educators to determine whether professional development opportunities meet state expectations. Effective professional development

should be intensive, ongoing and connected to practice, focused on student learning, and tied to school improvement goals.<sup>25</sup>

Several states have adopted research-based state standards for professional development. **Ohio's** standards, for example, include language on using data to inform the selection of professional development, using evaluation to determine the impact of professional development, and structuring professional development as a continuous process that happens over an extended period. **New Jersey's** standards specifically mention the use of research-based professional development with a demonstrated ability to improve student learning.

In **Delaware**, school districts, charter schools, colleges and universities, and established education-related organizations must submit professional development clusters to the Delaware Professional Standards Board and, ultimately, the state board of education, for approval. The knowledge and skills associated with the professional development must be grounded in state standards and targeted to affect student achievement by using research-based strategies.

**Oklahoma** also offers professional development institutes (PDIs) through the state's commission on teacher preparation to emphasize content and professional teaching practices. To comply with state law, PDIs must include 30 to 45 hours of initial training that is rooted in strategies to increase student performance. They must also be aligned with state standards and include follow-up training to enable integration into classroom practice. Moreover, among the requirements is an independent evaluation of the professional development that teachers complete. The state has PDIs in reading literacy, middle school math, science, mentoring, and cognitive coaching.

#### ***Create an Incentive-Driven Professional Development Initiative for Teachers to Acquire Advanced Skills***

Governors should consider providing incentives for teachers to participate in professional development to acquire advanced skills as coaches, mentors, and teacher leaders. These incentives should be part of a broader effort to design new models of teacher compensation that include differentiated salaries for teachers who assume responsibilities outside the classroom.

Teachers often find the limits of career advancement within the teaching profession frustrating. Although some teachers decide to leave the classroom to take on leadership positions elsewhere in the school district, many desire to continue their primary assignment in the classroom but want opportunities to expand their leadership skills within the school. One way to help teachers advance in the profession without leaving the classroom is to provide teachers with incentives to participate in professional development that prepares them to lead and support other teachers' efforts to improve their practice.

In **Minnesota**, districts participating in the state's teacher compensation initiative, Q-Comp, must include job-embedded professional development as one of five components. Schools must provide teachers with time during the school day to participate in professional development aligned with district staff development plans. The professional development must be selected based on student data and teacher need.

Used in many districts nationwide, the Teacher Advancement Program (TAP) gives teachers the opportunity to assume additional roles and responsibilities after they have completed a prescribed series of professional development sessions that prepare them to become teacher leaders and peer evaluators. Assuming these additional roles and responsibilities enables teachers in TAP schools to earn additional compensation.

### **Next Steps for States**

To fund the changes recommended in this brief, states will need to strategically withdraw funding from professional development that is not affecting student learning and does not meet state standards. States should also consider finding ways to reduce costs by providing professional development in more cost-effective ways. This could involve delivering professional development via the Internet.

**Kentucky** and **Maryland** have statewide libraries of professional development content for teachers that are accessible through the Internet. The videos found in these libraries contain footage of, for example, teachers demonstrating lessons, teachers discussing professional practice with one another, and teachers discussing instructional strategies. The videos enable teachers to see lessons and instructional practices being used rather than merely learning about them in a professional development session. Another video topic is using data to improve student learning. States that elect to create video libraries can more easily ensure that the professional development delivered through them is of high quality and is tied to state standards.

The video libraries provide teachers with a unique opportunity to access professional development that they need and that might otherwise not be available to them. In addition, teachers can access professional development without having to take leave from their classrooms or travel to a hard-to-reach location. This professional delivery mode is particularly helpful to teachers who teach in rural areas.

Finally, adopting the recommendations in this brief will require states to reexamine current professional development expenditures. States should consider abandoning professional development practices, modes of delivery, and content that research indicates will not improve student learning. Professional development that lacks sufficient intensity or duration to affect student learning should not continue to be funded. Professional development that does not include follow-up for teachers and does not include an evaluation component should be eliminated, and resources should be redirected to more targeted and constructive professional development.

Governors can take the lead by working with state education leaders, professional development providers, higher education institutions, and teacher associations to make systemic changes in the professional development delivery system. The current fiscal crisis may provide an opportunity to better target scarce state resources to an important but neglected aspect of teacher training and development.

## NOTES

<sup>1</sup> Linda Darling-Hammond et al., *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad* (Dallas, Texas: National Staff Development Council, February 2009).

<sup>2</sup> For more information on the study, see <http://ies.ed.gov/ncee/edlabs/projects/project.asp?id=70>.

<sup>3</sup> The variability in the nine studies reviewed makes it difficult to identify any patterns in the professional development studies or generalize the findings. For more information on the study, see <http://ies.ed.gov/ncee/edlabs/projects/project.asp?id=70>.

<sup>4</sup> Darling-Hammond et al.

<sup>5</sup> Ibid.

<sup>6</sup> W. Penuel, B. Fishman, R. Yamaguichi, and L. Gallagher, “What Makes Professional Development Effective? Strategies that Foster Curriculum Implementation,” *American Educational Research Journal* 44, no. 4 (December 2007): 921–58.

<sup>7</sup> Eisenhower Mathematics and Science Consortia and Clearinghouse Network, “What Experience Has Taught Us About Professional Development?” (Washington, D.C.: Eisenhower Mathematics and Science Consortia and Clearinghouse Network, 2005).

<sup>8</sup> Katherine Mitchem, Deborah Wells, and John Wells, “Using Evaluation to Ensure Quality Professional Development in Rural Schools,” *Journal of Research in Rural Education* 18, no. 3 (2003): 96–103.

<sup>9</sup> M. Kiernan Killeen, David H. Monk, and Margaret Plecki, “School District Spending on Professional Development: Insights from National Data (1992–1998),” *Journal of Education Finance* 28 (summer 2002): 25–50.

<sup>10</sup> Darling-Hammond et al.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Daniel Weisburg, Susan Sexton, Jennifer Mulhern, and David Keeling, *The Widget Effect: Our National Failure to Acknowledge and Act on Differences in Teacher Effectiveness* (Washington, D.C.: The New Teacher Project, 2009).

<sup>14</sup> Jane Hannaway, “District of Columbia Public Schools Human Capital Initiatives” (testimony before the District of Columbia City Council, January 2009).

<sup>15</sup> Weisburg et al.

<sup>16</sup> Tabitha Grossman, *Building a High-Quality Education Workforce: A Governor’s Guide to Human Capital Development*. (Washington, D.C.: National Governors Association Center for Best Practices, May 2009).

<sup>17</sup> Jane Dowling, Sheila Murphy, and Baofeng Wang, *The Effects of the Career Ladder Program on Student Achievement: Evaluation Report* (Phoenix, Ariz.: Arizona Department of Education, January 15, 2007).

<sup>18</sup> For a state-by-state analysis of data systems, visit the Data Quality Campaign’s Web site at <http://www.dataqualitycampaign.org/>.

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<sup>19</sup> Action research calls for participants (e.g., teachers) to systematically examine their own education practices using accepted research techniques in order to improve those practices.

<sup>20</sup> For more information on Delaware's Standards for Professional Development, see <http://www.doe.k12.de.us/infosuites/staff/profdev/default.shtml>.

<sup>21</sup> National Council on Teacher Quality, *State Teacher Policy Yearbook* (Washington, D.C.: National Council on Teacher Quality, 2008).

<sup>22</sup> Grossman.

<sup>23</sup> Multiple sources of data should be used in addition to teacher evaluations, including student achievement data from standardized tests, teacher-prepared tests, and other student artifacts that provide information about a student's learning and growth. Teacher evaluations do not necessarily have to be conducted by the school principal. In several states, such as Arizona and Minnesota, teacher leaders or "master" teachers conduct peer evaluations.

<sup>24</sup> Grossman.

<sup>25</sup> Darling-Hammond et al.