

Governor's Role in Aligning Early Education and K–12 Reforms: Challenges, Opportunities, and Benefits for Children

Executive Summary

To increase student learning and achievement, more and more states are pursuing reforms in *both* early care and education (ECE) programs and the K–12 education system. Many states are implementing the Common Core State Standards (CCSS) to promote all students' readiness for college and careers, while engaging in reforms prompted by the Race to the Top–Early Learning Challenge (RTTT–ELC) grant competition to expand children's access to high-quality programs for early learning. Ideally, these initiatives would support and reinforce each other's goals and approaches to education—especially across the birth-to-grade 3 continuum, when research shows children acquire critical skills for academic success. Well-aligned ECE and K–12 reforms and policies would enable states to develop common expectations on what children need to know and be able to do as they transition from early childhood programs to the primary grades, and on what skills early childhood and K–12 educators need to help children reach those expectations. In short, children would experience more consistent teaching practices and learning environments from birth through grade 3 that help them develop foundational skills from one year to the next in a more continuous manner.

Unfortunately, in most cases, aligning reforms in the early learning and K–12 systems is challenging. Typically, these efforts are led by different state entities and policymakers with limited knowledge of one another's goals and strategies. ECE and K–12 leaders also tend to have different approaches to teaching and learning and even different beliefs about the objec-

tives. As a result, states may create policies that lead to misaligned goals and practices, wasted resources, and missed opportunities to support children's success as they move from ECE programs to the K–12 system.

As policymakers who have the responsibility for the well-being and education of children of all ages, governors are uniquely situated to bring state agencies together and develop a coordinated strategy to align ECE and K–12 policies so they better serve all children, starting at birth. Doing so requires leaders from both systems to analyze what their respective goals, approaches, and reform strategies have in common and how they differ. This process can help governors, their staff, and other state policy leaders develop concrete action steps that promote greater alignment of ECE and K–12 reforms in key areas.

- *Leadership and Governance*—Redesign or create new governance structures that facilitate alignment of ECE and early elementary policies and practices.
- *Learning Standards*—Ensure early learning standards and early elementary standards are aligned with each other.
- *Child Assessments*—Develop aligned birth-to-grade 3 assessments that help monitor children's progress toward the academic and developmental goals that are reflected in states' early learning standards and the CCSS.
- *Accountability*—Incorporate promising practices from early learning into accountability policies that apply to the early elementary grades.
- *Teacher/Leader Preparation and Professional Development*

- Strengthen the capacity of ECE teachers/leaders to prepare children for the CCSS.
- Help ECE and K–3 teachers align their approaches to teaching and learning.
- Develop credential and certification policies for elementary teachers and principals that support both the CCSS and best practices in early education.
- *Resource Allocation and Reallocation*—Realign resources to support access to high-quality ECE programs.

Introduction

Gaps in children’s learning and development appear well before they start kindergarten. Disparities in children’s cognitive, social, and physical development have been documented as early as nine months, and these disparities continue to grow during the first five years of life.¹ This early achievement gap puts many children, especially those from low-income and other at-risk backgrounds, at a serious disadvantage as they enter the public school system. Moreover, researchers continue to find strong relationships between children’s cognitive and social competence before kindergarten and later academic success.² In a study of several large longitudinal data sets that tracked children’s development through ages 8, 10, and 14, students’ reading and math skills and ability to focus at kindergarten entry were significant predictors of later academic achievement.³

High-quality early care and education (ECE) can put children on a more promising trajectory. Decades of research demonstrates these programs can significantly improve young children’s capacity for learning and interacting constructively with peers and adults, leading to lifelong academic and social benefits. Among the benefits are higher high school completion rates and lower rates of grade retention and special education placements.⁴ Yet participation in early learning programs does not preclude future academic challenges. If an ECE program does not meet sufficiently high standards, its benefits may be short-lived.⁵ At the same

time, if the public school system—especially the early elementary grades—is not equipped to sustain and build on the benefits of high-quality ECE programs, the gains children make in the early years may not translate into long-term academic success.⁶ Therefore, done well, a more aligned and integrated approach that takes advantage of the potential of both ECE and the early elementary years can reduce the likelihood that low-income children fall behind early in life or experience a growing achievement gap over time.

For these reasons, states are exploring policies and reforms that boost school readiness and build on early gains to improve student achievement in kindergarten and beyond. One strategy, often called birth-to-3rd grade (B–3rd) reform, focuses on the alignment of policies and reforms in states’ ECE programs and the early elementary grades so they support and reinforce each other’s goals and approaches. Such alignment promotes a more consistent and coherent learning experience for children as they transition from the first five years of life to the primary grades. Unfortunately, in most cases, reform efforts in the early learning and public education systems are led by different state entities and policymakers with limited knowledge of each other’s goals and strategies. ECE and K–12 leaders tend to have different approaches to or assumptions about teaching and learning, so they need to take steps to coordinate with each other to effectively support the children they both serve. Otherwise, states run the risk of creating policies that lead to wasted resources and misaligned goals and practices, causing many children to fall behind as they move from ECE programs to the public education system.

As policymakers who have the responsibility for the well-being and education of children of all ages, governors are uniquely situated to bring state agencies together and align their improvement strategies—including their funding and accountability mechanisms—to better serve young people across the ECE and public education systems. As states begin to implement reforms related to major ECE and K–12

initiatives, such as the Common Core State Standards (CCSS) and the Race to the Top–Early Learning Challenge (RTTT-ELC), governors have an opportunity to develop a more aligned B–3rd strategy for education reform across agencies. Doing so requires leaders from both systems to analyze their respective goals, approaches, and reform strategies. State leaders, for example, can examine the extent to which governance structures, learning standards, student assessments, educator quality policies, and resource allocation decisions foster greater alignment between ECE and K–12 policies and produce better results for more students.

Challenges and Opportunities in Aligning Common Core and Early Learning Reforms

To achieve the goals of the CCSS and RTTT–ELC, states are focusing on many of the same teaching and learning issues. Forty-five states, the District of Columbia, and three territories have adopted the CCSS and are now implementing significant changes to their policies related to accountability, assessment; and training and evaluations for teachers, principals, and other school leaders to increase the likelihood that more students will meet or exceed the more ambitious standards. At the same time, in response to the RTTT–ELC grant competition, 35 states, the District of Columbia, and Puerto Rico developed ECE reform proposals to increase children’s access to high-quality programs for early learning by addressing similar issues, including comprehensive learning standards, high-quality assessments, and the quality of the talent delivering instruction and other services. Although only 14 states are expected to receive RTTT–ELC funds by the end of 2012 to implement their plans over the next three years, many of the other applicants also intend to move forward with their proposals.⁷

Thus, in the next few years, most states will be engaged in both reform efforts simultaneously. Thirty-four of the 37 RTTT–ELC applicants—and 13 of the 14 winners—have adopted the CCSS.⁸ In addition, 18 of the RTTT–ELC applicants also submitted plans for

reforms in kindergarten through grade 3 that aim to sustain the effects of ECE programs into the early elementary years.⁹ Ideally, the two streams of activities should complement each other. ECE policy reforms prompted by RTTT–ELC proposals should put children on a better trajectory to reach the CCSS when they enter kindergarten. CCSS implementation should then reinforce the benefits that children reap from high-quality early learning experiences to extend their growth and development into the K–12 years. The concurrent early childhood and K–12 reforms present policymakers an opportunity to develop a coherent B–3rd strategy for raising student achievement. To do so, however, they need a better understanding of the ways existing ECE and public education systems and their strategies are not aligned well.

State leaders need to consider six key issues and the related challenges and opportunities.

Leadership and Governance. Typically, governors, state superintendents, and their respective staff are closely engaged in CCSS implementation and other public education reform initiatives. In contrast, state early childhood advisory councils, multiple cabinet-level departments, separate early learning agencies, or ECE staff within state education agencies oversee ECE reforms, usually with limited involvement from the governor’s office or the state superintendent. Restructuring governance to facilitate increased communication and collaboration between ECE and K–12 policy and administrative leaders, practitioners, and other experts can help ensure that their respective reform initiatives have complementary goals and approaches.

Learning Standards. CCSS focuses states’ policies and resources on more rigorous standards in English language arts and mathematics. ECE reforms aim to increase early childhood programs’ attention on research-based standards that include literacy and math, but also health, physical development, social and emotional development, and skills related to chil-

dren's capacity to learn (often called approaches to learning.¹⁰) Standards influence other education policies, so the difference in emphasis between ECE and K–12 standards in terms of what children should know and be able to do may result in inconsistent practices and policies. Conversely, developing more aligned B–3rd standards would establish a more coherent learning pathway from birth through the early elementary years, with expectations about children's learning and development that are shared by both ECE and public schools.

Child Assessments. Two consortia of states—the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium—are developing English language arts and math assessments for grades 3 to 12 that are aligned to the CCSS. PARCC also is developing K–2 formative assessments. For young children below age five, research and best practices in ECE have promoted the use of assessments that examine domains of learning and development beyond reading and math. In the RTTT–ELC guidelines, states' proposals for kindergarten entry assessments (KEAs) were required to follow such a comprehensive approach. Those K–12 and ECE assessment efforts reflect different beliefs about what needs to be assessed in children's learning and development and therefore, what knowledge and skills policies and instruction should support. A more aligned B–3rd grade assessment system would enable policymakers and educators at the state and local levels to measure children's development in a more comprehensive way and to implement data-informed interventions that support children's academic, social, and emotional growth.

Accountability. Most states, whether through their own initiative or motivated by incentives from Race to the Top grants or Elementary and Secondary Education Act waivers to meet the higher expectations of the Common Core, have implemented policies that tie annual increases in student assessments—as one of multiple indicators—to evaluate the effectiveness

of teachers, leaders, schools, and districts. Using test scores as a measure of program accountability is more challenging for ECE programs and early elementary grades, because these settings usually do not use standardized tests for high-stakes purposes. Moreover, the nature of young children's development makes attaining reliable and valid assessment data for program accountability purposes difficult from both a scientific and pragmatic standpoint.¹¹ For these reasons, states can benefit from an accountability approach for pre-kindergarten to grade 3 (PreK–3) that is more aligned with best practices from ECE systems than from K–12 reform models.

Teacher/Leader Preparation and Professional Development. States are evaluating and improving their programs for teacher/leader preparation and investments in professional development so they can better support teachers' and principals' ability to implement the CCSS. At the same time, RTTT–ELC requires states to develop plans to improve ECE workforce quality. Some states' applications also include professional development strategies for PreK–3 teachers and elementary school principals to promote instruction and policies that incorporate ECE best practices into the early elementary years. Given the different approaches to standards and assessments discussed above, states may need to take steps to ensure efforts to reform educators' preparation and professional development are guided by consistent expectations for professional competencies and children's learning and development.

Resource Allocation and Reallocation. Although state revenues have begun to recover lately, increases in health care spending have exceeded increases in revenues. This has put a squeeze on all other state spending, including spending for education at a time of increasing student performance expectations. As a result, states are examining their spending across the education continuum, from early childhood to postsecondary, to get the most out of existing state funds. Such efforts should take into account whether investments

in ECE programs and related improvement strategies, such as KEAs, data systems, and professional development, increase kindergartners' readiness for the rigor of the CCSS. At the same time, ECE spending needs to be adequate for programs to be accessible, especially in low-income communities, and attain a high level of quality. Policymakers who take a more strategic approach to making decisions about spending across the ECE and K–12 systems are more likely to get the expected returns from their investments from birth to grade 3. Furthermore, by allocating resources to expand access to early education, increase program quality, and better prepare young children for the CCSS, states stand to reap savings from reduced remediation expenses, such as grade retention and special education services.¹²

What Governors and State Leaders Can Do to Increase Alignment and Results

To meet the challenges and seize the opportunities related to ECE reforms and CCSS implementation, governors and other state leaders can consider several strategies.

Leadership and Governance—Redesign or create new governance structures that facilitate alignment of ECE and early elementary policies and practices. Both **New Jersey** and **North Carolina** have an early learning office within their state education agency that goes beyond administering ECE programs and helps align policies and practices from preschool through grade 3. In New Jersey, the [office](#) has cosponsored institutes for principals and superintendents to help them support PreK–3 classrooms in which teachers use consistent approaches and draw from best practices in both early learning and K–3 education. North Carolina's [early learning office](#) is developing formative assessments from kindergarten through grade 3 that are aligned both to the CCSS and to other skills (e.g., social and emotional development and approaches to learning) that are found in the state's early learning standards. Importantly, both offices are embedded

within the state education agency's academic division instead of operating as an isolated unit overseeing only preschool programs.

In **Pennsylvania**, the [Office of Child Development and Early Learning](#) administers publicly funded ECE programs that serve children from birth to age five. Its deputy secretary reports to senior leaders in the Department of Education and the Department of Public Welfare, enabling the office to play a coordinating role. Among other initiatives, this office has increased alignment between the state's learning standards for preschoolers and those for early elementary students. Short of creating new governance structures, states can also ensure that, when appropriate, both ECE and K–12 perspectives are meaningfully represented in existing state agencies, advisory bodies, or task forces that lead reform initiatives.

Key Questions Governors and Their Staff Should Ask:

1. What existing or new governance structures can be modified or developed to facilitate alignment of ECE and early elementary policies? What are the pros and cons of establishing a new independent agency or interagency office? What are the pros and cons of creating new structures within the state education agency or governor's office?
2. How can existing boards (e.g., state board of education and state standards board), advisory bodies (e.g., early childhood advisory councils and P–20 councils), and/or task forces that are charged with making recommendations for various policy areas (e.g., standards implementation, educator quality, assessment, and accountability) better align policy across the early education and K–3 continuum?
3. Is early learning expertise from policy leaders, researchers, and practitioners meaningfully represented and integrated in major education reform initiatives? Similarly, are perspectives from public education stakeholders included in major early childhood reforms efforts?
4. To what extent does the governor's education

policy staff possess expertise in both early learning and public education?

Learning Standards—Ensure early learning standards and early elementary standards are aligned with each other. Implementation of the CCSS has prompted states to examine whether their early learning standards in literacy and math are aligned with the new standards. For example, as part of its CCSS adoption, **Massachusetts** used its existing preschool learning standards as the basis for developing prekindergarten learning guidelines for literacy and math that are aligned with the Common Core. The state developed what it refers to as [Pre-K through 12 Curriculum Frameworks](#) that describe children’s learning and developmental pathways in literacy and math starting at age 3. Other states, such as **North Carolina** and **Washington**, are aligning their K–3 standards, including the CCSS, with their early learning standards by incorporating nonacademic domains, including social and emotional development and approaches to learning, into the early elementary grades so teachers continue to support children’s development in those domains beyond preschool. **Pennsylvania** already has developed [standards](#) from prekindergarten through grade 2 that address the broader domains of learning and development and are aligned to the CCSS.¹³

Key Questions Governors and Their Staff Should Ask:

1. Do the state’s existing early learning standards represent an adequate foundation of knowledge and skills that children need to meet K–12 expectations, especially those reflected by the CCSS?
2. Do the state’s early elementary standards address domains such as social and emotional skills and approaches to learning that are critical for school readiness and long-term academic success?

Child Assessments—Develop aligned B–3rd grade assessments that help monitor children’s progress toward the academic and developmental goals that are

reflected in states’ early learning standards and the CCSS. Child assessments during early childhood and at kindergarten entry can help teachers and administrators implement the CCSS by informing them about children’s strengths and weaknesses relative to the new standards; this is possible, however, only if the assessments are aligned with the CCSS. When **California** created its voluntary [KEA](#), for example, the developers made sure it was aligned to the existing preschool assessment *and* the CCSS. **North Carolina** is going a step further by developing K–3 formative assessments that provide teachers with information about students’ development in relation to the CCSS and to the broader domains of learning, such as social and emotional development. For the assessments to improve teaching and learning across the B–3rd continuum, both ECE and K–3 teachers and leaders must have access to good data and the training and support necessary to analyze and use that data to improve practice and policies.

Key Questions Governors and Their Staff Should Ask:

1. If the state is developing a new KEA and other early childhood assessments, to what extent do those instruments reflect children’s progress toward the Common Core in kindergarten?
2. How can the state encourage the development and use of early elementary formative assessments that can measure students’ academic, social, and emotional development?
3. What new professional development opportunities do ECE and K–3 teachers and leaders need to use assessment data effectively and develop practices and policies that help children become proficient against the CCSS and other critical domains?

Accountability—Incorporate promising practices from early learning into accountability policies that apply to the early elementary grades. Relying primarily on assessment data for preschoolers and early elementary students for high-stakes accountability purposes poses some challenges. Consequently, states may want to

consider aligning their education accountability policies for prekindergarten through grade 3 with promising practices from ECE. One option is to consider weighting other quality measures, such as classroom observations, more heavily when evaluating the performance of teachers, schools, and districts.¹⁴ The [Classroom Assessment Scoring System \(CLASS\)](#), for example, is an observational instrument that gauges the quality of teacher-child interactions and could serve as a valid and reliable indicator of quality in the early elementary grades. CLASS is increasingly being incorporated into state accountability systems for early learning programs, and the instrument's developers are adapting it for use in the later grades. Researchers, including those from the Measures of Effective Teaching project,¹⁵ have demonstrated the instrument's predictive value for student outcomes.¹⁶

Another promising practice from early learning that can be incorporated into state accountability systems is the [Quality Rating and Improvement System \(QRIS\)](#), a method of gauging the quality of an ECE program and tying incentives and consequences to a program's rating. Programs that participate in a QRIS receive a rating (e.g., 3 stars) that is typically based on observations of the learning environment and determinations of whether policies that promote quality services are in place (e.g., policies related to staff qualifications, class size, child-staff ratios, family engagement, management, and administration). Thus far, states' QRISs do not use child assessment data to derive a program's rating. Studies have shown that participation in a QRIS is related to an increase in program quality. However, in the few instances where researchers have examined the extent to which rating levels are correlated with children's learning and development, the results have been mixed.

Several states, including **Indiana**, **Minnesota**, and **Virginia**, are investigating how their QRIS relates to child outcomes, and findings from these studies should provide further guidance on how assessment data can appropriately be included in QRIS.¹⁷ Although ac-

countability systems like QRIS require more staffing, training, and, therefore, more resources than the typical system based on tests, they can also provide more actionable and reliable data for improvement efforts.¹⁸ Policymakers can look to their peers in other states who have more experience with tools such as CLASS and QRIS to improve their education accountability system, especially for the early elementary grades.

Key Questions Governors and Their Staff Should Ask:

1. Does the state have a systematic way of rigorously evaluating the quality and impact of its ECE and K–12 interventions?
2. How can the state strengthen its accountability policies for the early elementary grades that are not subject to standardized testing by adapting promising strategies from ECE practice and research?

Teacher/Leader Training and Professional Development

- *Strengthen the capacity of ECE teachers/leaders to prepare children for the CCSS.* The CCSS sets a higher bar for students starting in kindergarten, and ECE professionals can play an role in helping children reach these standards. State policymakers can leverage their existing human capital investments in early childhood teachers and leaders to ensure that they have the necessary supports to give children the foundation they need. For example, states can examine the extent to which ECE teacher preparation requirements, preservice training programs, and professional development offerings reflect the knowledge and skills these teachers need to promote children's readiness for the CCSS. States that submitted RTTT–ELC proposals can also look for opportunities to align their ECE professional development reform strategies with the CCSS. Finally, some states are considering helping ECE providers use KEA results as one indicator of how well the providers are supporting children's development toward the CCSS. In

its RTTT–ELC application, **Illinois** proposed to provide its preschool program directors with a Kindergarten to Preschool Feedback Report that would include aggregated school readiness data about the children who attended their programs, along with district and statewide averages, so the programs can make more informed decisions about their professional development and other improvement efforts.

- *Help ECE and K–3 teachers align their approaches to teaching and learning.* The different approaches early childhood educators and early elementary teachers typically use to work with children—addressing broader goals in learning and development in contrast to focusing on academic achievement—can create an inconsistent educational experience for students as they transition from ECE programs to public schools. With support from an RTTT–ELC grant, **Delaware**, **Massachusetts**, and **Washington** are creating regional centers or teams that bring ECE and early elementary teachers together for joint professional development. Other states are using KEAs as an opportunity to help kindergarten teachers nurture the same set of skills on which high-quality ECE programs focus. **Connecticut**’s RTTT–ELC proposal included professional development strategies (e.g., coaching and online platforms) that help kindergarten teachers analyze KEA results and better support students’ social and emotional development.
- *Develop credential and certification policies for elementary teachers and principals that support both the CCSS and best practices in early education.* Elementary educators’ training experiences and requirements should build their capacity to support the CCSS as well as the development of social and emotional skills and approaches to learning that are critical to later achievement. Unfortunately, analyses by national organizations find elementary teacher preparation programs tend to lack strong content that helps teachers support children’s well-rounded

development. The [National Council for Accreditation of Teacher Education](#) found most teacher preparation programs require only minimal coursework in child development, and they do, these classes often do not address applications in educational settings and are not connected to student-teaching experiences.¹⁹

The early childhood standards of the [National Board for Professional Teaching Standards](#), which covers teachers of children ages 3 to 8, promote teacher competencies that address core academic skills and children’s social and intellectual development.²⁰ States can look to those standards when considering improvements to their teacher preparation policies. In addition, state policies can help principals and other K–12 leaders become more knowledgeable about ECE best practices that improve early elementary instruction, thereby increasing their capacity to promote effective education across the prekindergarten-to-grade 3 continuum. **Illinois** recently enacted [legislation](#) embedding more ECE content in its principal certification requirements.²¹

Key Questions Governors and Their Staff Should Ask:

1. How can the state increase the capacity of ECE teachers, leaders, and training programs to help more young children be well prepared for success in school and to make progress toward proficiency on the CCSS?
2. To what extent have efforts to implement the Common Core involved ECE stakeholders so these groups are aware of what is expected of children as they leave early learning programs and enter kindergarten?
3. How can the state and districts create opportunities for ECE and K–3 teachers and leaders to learn together in order to develop more consistent approaches that help more children reach higher expectations?
4. How can the state help articulate core competencies that all ECE and K–3 teachers and leaders need? How can the state ensure that a common

set of knowledge and skills is reflected in credentialing, certification, preparation, and professional development policies?

Resource Allocation and Reallocation—Realign resources to support access to high-quality ECE programs. Children, especially those in low-income and high-need communities, would have a better chance to take on the CCSS in the early elementary grades and beyond if they had access to high-quality ECE programs. Currently, 10 states do not fund prekindergarten; in 10 other states, fewer than 10 percent of all four-year-olds have access to state-funded preschool.²² Also, 40 states currently do not require school districts to provide full-day kindergarten.²³ While state budgets remain tight, some policymakers have found ways to support early learning investments. In **Connecticut**, Governor Dan Malloy proposed increased funding for prekindergarten as part of his school reform strategy and, in 2012, the legislature approved expanding access to such programs to 1,000 more children. Similarly, Governor Mitch Daniels in **Indiana** has long championed voluntary full-day kindergarten and, during the past legislative session, legislators passed a bill that fully funds the initiative.

New investments in this economy are challenging, but as states continue to examine the productivity of their education spending—from early childhood through postsecondary—they may be able to find efficiencies that result in cost savings. Reallocating existing funding to research-based strategies in the early years can reduce spending for education in the future through a lessened need for later remediation. At the same time, to provide a strong foundation for children to reach the CCSS, any resources allocated to ECE programs must support high-quality standards and include mechanisms for monitoring the quality of those programs and their effect on children.

Key Questions Governors and Their Staff Should Ask:

1. Has the state identified research-based investment opportunities in ECE that can increase

children's capacity to be ready for school and reach the CCSS?

2. Does the state have mechanisms to monitor its education investment from birth through the postsecondary years so policymakers can identify and take advantage of opportunities for efficiencies, reallocation, and consolidation that maximize the utility of the state's resources?

Conclusion

In the next few years, because of major initiatives such as the Common Core State Standards, Race to the Top, and the Early Learning Challenge, most states will be engaging in both ECE and K–12 reforms. If the respective leaders of these efforts do not take steps to align their policies, they risk working at cross-purposes. In contrast, by coordinating their strategies, state policymakers can develop a more coherent and aligned approach to teaching and learning from early childhood to the primary grades that enables educators to reinforce and build on children's development as they progress from infancy to preschool to kindergarten and beyond. With more aligned goals and strategies, states can use limited resources more efficiently. Investments in early learning are more likely to support achievement in the early elementary grades while K–12 funding can reinforce those early childhood skills that are critical to later success.

Importantly, aligning ECE and K–12 policies is not a one-time project. It is a continuous process that requires governance structures that are charged to ensure systematic communication among leaders across the birth-to-12th grade continuum, develop a coherent strategy for improving student achievement, and promote collaboration between early learning and public education leaders. Governors and their staff are best positioned to drive this process because they have jurisdiction over the relevant executive agencies and an understanding of the agencies' respective goals and strategies. Gubernatorial leadership is critical to shape a blueprint for raising student achievement that reflects best practices from both early learning and

K–12 education. It also is essential for mobilizing resources to execute a vision that better serves children and educators.

Additional Resources

Education Commission of the States, [“Early Care and Education: Aligning the Early Years and the Early Grades.”](#) *The Progress of Education Reform* 9, no. 1 (2008): 1–4.

Pew Center on the States, [Transforming Public Education: Pathway to a Pre-K–12 Future](#) (Washington, DC: Pew Center on the States, 2011).

Rachel Demma, [Building Ready States: A Governor’s](#)

[Guide to Supporting a Comprehensive High-Quality Early Childhood State System](#) (Washington, DC: NGA Center for Best Practices, October 2010).

Ruby Takanishi and Kristie Kauerz, [“PK Inclusion: Getting Serious about a P–16 Education System.”](#) *Phi Delta Kappan* 89, no. 7 (March 2008): 480–87.

Tabitha Grossman, Ryan Reyna, and Stephanie Ship-ton, [Realizing the Potential: How Governors Can Lead Effective Implementation of the Common Core State Standards](#) (Washington, DC: National Governors Association, October 2011).

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Endnotes

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2. Terri J. Sabol and Robert C. Pianta, “Patterns of School Readiness Forecast Achievement and Socioemotional Development at the End of Elementary School,” *Child Development* 83, no. 1 (January/February 2012): 282–99; Douglas H. Clements and Julie Sarama, “Early Childhood Mathematics Intervention,” *Science* 33 (August 19, 2011): 968–70; and David K. Dickinson, “Teachers’ Language Practices and Academic Outcomes of Preschool Children,” *Science* 33 (August 19, 2011): 964–67.
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5. See, for example, Michael Puma et al., *Head Start Impact Study* (Washington, DC: US Department of Health and Human Services, 2010), http://www.acf.hhs.gov/programs/opre/hs/impact_study/reports/impact_study/hs_impact_study_final.pdf.
6. Jeanne Brooks-Gunn, “Early Childhood Education: The Likelihood of Sustained Effects,” in *The Pre-K Debates*, ed. Edward Zigler, Walter S. Gilliam, and W. Steven Barnett (Baltimore, MD: Paul Brookes Publishing, 2011), 200–07.
7. California, Delaware, Maryland, Massachusetts, Minnesota, North Carolina, Ohio, Rhode Island, and Washington were awarded the initial RTTT–ELC grants. Five other states have been invited to apply for subsequent RTTT–ELC grants: Colorado, Illinois, New Mexico, Oregon, and Wisconsin.
8. Three RTTT–ELC applicants have not adopted the CCSS: Minnesota, Nebraska, and Puerto Rico. Minnesota did use the CCSS as a base for its English language arts standards.
9. Harriet Dichter and Albert Wat, *Analysis of Race to the Top—Early Learning Challenge Application Section on “Sustaining Effects into the Early Elementary Grades”* (Chicago, IL: The Ounce of Prevention Fund, 2012), <http://www.ounceofprevention.org/national-policy/Sustaining-Effects-6-10-12.pdf>.
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11. Collecting early childhood assessment data that are reliable and valid for high-stakes purposes is challenging for several reasons. It is often difficult to get an accurate “read” of young children’s competency on a certain skill, because their development can be highly variable during the early years. They may also be unreliable test takers because they are not familiar with the concept and purpose of testing. Furthermore, because standardized tests designed to be administered in large groups are not feasible in the early grades, assessing younger children usually entails one-on-one interactions or observations. These methods require much more time, training, and resources. For more, see Catherine E. Snow and Susan B. Van Hemel, eds., *Early Childhood Assessments: Why, What, and How* (Washington, DC: National Research Council of the National Academies, 2008); and Thomas Schultz and Sharon Lynn Kagan, *Taking Stock: Assessing and Improving Early Childhood Learning and Program Quality* (Washington, DC: The National Early Childhood Accountability Task Force, 2007), http://ccf.tc.columbia.edu/pdf/Task_Force_Report.pdf.
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