



Early Grades: P-3 Alignment

Annotated Bibliography

The early childhood years do not end when children enter kindergarten. In fact, experts agree that early childhood development is a continuous process that extends through third grade. During those first eight years of life, a child's brain is most malleable and capable of learning. Thus, investments in the early years reap the largest returns. Education research mirrors science, supporting an aligned and high-quality education system from preschool through third grade. Through this so-called P-3 alignment, important academic gains made in the early years have the best chance of lasting. Evidence from initiatives in Arkansas, Maryland and Tennessee also highlight successful practice. Policymakers should look for ways to align early childhood education programs with high-quality K-3 to ensure more children get a strong start in life.

The following studies provide a sampling of research on policy topics with nationwide applicability.

Early childhood development continues through third grade.

1. **The Annie E. Casey Foundation. (2013). *The First Eight Years: Giving Kids a Foundation for Lifetime Success*. Retrieved from www.aecf.org**

In this report, the authors stressed the importance of early childhood investments to prepare the workforce of the future. After analyzing national data, they found pervasive gaps in cognitive, physical, social and emotional development that begin at birth, especially for children living in low-income households or facing poverty. Generally, these gaps at school entry widen as children progress through the early grades. The authors argued that the best way to combat achievement gaps is to create an aligned and high-quality early care and education system for children from birth through age 8. Alignment means coordinating and holding accountable informal and formal early childhood programs to ensure that more children enter school ready to learn. The authors recommended the following policies to help close the gap in school readiness: support parents so they can effectively care for their children; increase access, particularly for children from low-income families, to high-quality programs that are aligned from birth through age 8; and develop comprehensive early childhood care systems that are connected to statewide longitudinal data systems to fully support the cognitive, social, physical and emotional development of young children.

2. **Center on the Developing Child. (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Cambridge, MA: Harvard University, Center on the Developing Child.**

Early childhood experts illustrated how predictive the first eight years of life are to lifelong health in this report. They described the science behind early childhood development, particularly brain development. In the early years, most of the brain's neural connections are made, laying the foundation for later learning. The report stresses how positive early experiences support brain development, while toxic events damage neural connections and hinder growth. Developing brains and growing bodies also rely on comprehensive prenatal care, proper nutrition and preventive healthcare. The experts reported that poor early development and health result in expensive, lifelong health complications, such as weakened immune response, chronic disease and a shorter life span. The report offers policy solutions to strengthen existing health services by increasing the coordination between public and private early childhood programs and health agencies.

Getting on the same page: P-3 alignment promotes quality.

3. **Ewen, D. & Herzfeldt-Kamprath, R. (2016). *Examining Quality Across the Preschool-to-Third-Grade Continuum*. Washington, DC: Center for American Progress.**

This study uses nationally representative data from the Early Childhood Longitudinal Study — Birth Cohort to reveal inconsistent access to high-quality early childhood and elementary programs. Research shows that participation in high-quality programs leads to academic gains and narrows school-entry achievement gaps.

Even so, this study reports that children from the lowest income families are the least likely to attend high-quality preschool programs. Black children are less likely than their white and Hispanic peers to attend high-quality, center-based programs. Inconsistencies also exist in the way quality is assessed in early learning programs. The study shows inadequate K-2 classroom time is spent on higher-order thinking skills, chiefly in math. The authors concluded that, through better P-3 alignment policies, policymakers can address these gaps in quality programming and instruction to improve outcomes for all children. Specific P-3 alignment policies include: increase access to high-quality early childhood education programs; align standards and measures of quality, as well as accountability and longitudinal data systems, from P-3; and improve teacher preparation and professional development programs to support high-quality, comprehensive instruction.

4. Claessens, A., Engel, M., & Curran, F. (2014). Academic Content, Student Learning, and the Persistence of Preschool Effects. *American Educational Research Journal* (51.2), 403-434.

For this study, researchers analyzed data from the Early Childhood Longitudinal Study — Kindergarten Cohort to measure reading and math test score gains made during kindergarten. They sorted the data by the amount of classroom time spent on advanced and basic skill development. From the analysis, the researchers concluded that time spent on advanced content is associated with greater test score gains than time spent on basic skills. In fact, all children benefit more from challenging content — no matter the income of their household or their level of school readiness at kindergarten entry. Data indicates children did not benefit from exposure to basic reading content. As time spent on basic math content increases, end-of-year math test scores fell. Yet, the researchers found that teachers spent more classroom time on basic content than advanced, especially in math. By strengthening and aligning curricula and instructional practices from preschool through third grade, all children will gain more from classroom experiences.

5. Kauerz, K. & Thorman, A. (2011). *QRIS and P-3: Creating Synergy Across Systems to Close Achievement Gaps and Improve Opportunities for Young Children*. Retrieved from www.buildinitiative.org

Using research findings, this policy brief argues for state investment in quality rating and improvement systems (QRIS) to link the early childhood education and P-3 state systems. For instance, data indicates that only a quarter of first-grade classrooms and about a tenth of early childhood programs rate as the highest quality. In response, the authors contended that states can improve school readiness and early grades achievement results by strengthening and aligning these two systems. This alignment ensures that gaps in quality education opportunities can be identified and addressed, helping educators to intervene earlier with struggling students and correct developmental deficits. Also, connecting the systems increases the return on state investments by promoting the continuation of quality programming. The brief concludes with recommendations to promote effective alignment and collaboration between the two systems. They focus on aligning standards, curricula and teacher qualifications for programs from birth through third grade, as well as measuring, tracking and promoting the evidence-based elements of quality in all P-3 programs.

States need aligned policies and practice to prepare the future workforce.

6. Institute of Medicine & National Research Council. (2015). *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*. Retrieved from www.nap.edu

Early childhood experts collaborated on this benchmark report. It pairs decades of scientific studies on early development and learning with data on current education policy to highlight gaps between science and practice. Most of these gaps resulted from misalignment between early care programs and the early grades that cause the early education workforce to be fragmented and less effective. The experts concluded that strengthening the workforce is the best means to close the gaps, and they developed a framework to guide policymakers. The framework includes numerous, targeted policy solutions that revolve around several themes: bolstering teacher and caregiver qualification requirements based on evidence-based competencies; raising standards for teacher preparation programs; strengthening professional development opportunities; and ensuring educator evaluations lead to quality improvements. Capable leaders, educator collaboration and support from stakeholders also are key to successful policy implementation.

7. Daily, S. (2014). *Initiatives From Preschool to Third Grade: A Policymaker's Guide*. Education Commission of the States. Retrieved from www.ecs.org

In this policy-driven reference guide, the author provided effective strategies to align P-3 systems and programs to ensure young children have supportive and connected early learning opportunities. The author argued that a strong foundation for this alignment should include: high-quality P-3 programs supported by effective educators and statewide longitudinal data systems; P-3 aligned standards, assessments and curricula; coordinated revenue streams for P-3 programs to efficiently use all funding; and a coordinated P-3 state-level governance structure. Together, these policies help ensure that more children and families have continuous access to the supports and services necessary for academic success by the third grade.

8. Smith, S., Robbins, T., Stagman, S., & Mathur, D. (2013). *Parent Engagement From Preschool Through Grade 3: A Guide for Policymakers*. Retrieved from www.nccp.org

This report summarizes key research to show the critical role of parents — the first teachers — in early childhood development. Studies show that parents shape their children's future learning in the first years of life. For example, parents' open-ended conversations with young children lead to stronger language and literacy skills in school. The authors found that strong, parent engagement strategies, implemented from preschool through K-5, can effectively raise student outcomes. They offered specific parent engagement models, including state examples. State recommendations include: use many sources to support parent engagement, such as Title I funds and Head Start Collaboration offices; call on early childhood advisory councils to align strategies; and promote best practices in parent and family engagement initiatives.

9. National Governors Association. (2012). *Governor's Role in Aligning Early Education and K-12 Reforms: Challenges, Opportunities, and Benefits for Children*. Washington, DC.

In this brief, the authors proposed six key policies for governors to consider as they work to align the fragmented early childhood and K-12 education systems. Those policies are leadership and governance, learning standards, assessments, accountability, professional development and resource allocation. The authors also discussed challenges and opportunities related to these policies to help governors develop a state action plan. The challenges call for restructuring governance to align the disjointed education systems from birth, aligning early learning and K-3 standards, developing assessments that accurately track students' progress toward meeting the standards, connecting accountability practices across early childhood programs and the early grades, providing the necessary support and training for early childhood educators, and ensuring that all available resources provide access and support to high-quality programs.

10. Cooper, H., Batts, A., Patall, E., & Dent, A. (2010). *Effects of Full-day Kindergarten on Academic Achievement and Social Development*. *Review of Educational Research* (80.1), 34-70.

Pulling from 40 studies of kindergarten programs, this meta-analysis investigates the short- and long-term benefits of kindergarten attendance. The researchers compared program outcomes to determine whether children gain more from full-day kindergarten than they would from half-day programs. Academically, they found statistically significant achievement differences based on program length — with children gaining more from full-day kindergarten than from half-day programs. The test score advantage gained from full-day participation faded by the end of third grade. Even so, full-day kindergarten participants are more likely to have good attendance later in school, as well as stronger social-emotional development in terms of self-confidence and cooperative behaviors, than their peers who attended half-day kindergarten.

Accountability in the early years means high rewards but also high risks.

11. Data Quality Campaign. (2016). *Roadmap for Early Childhood and K-12 Data Linkages: Key Focus Areas to Ensure Quality Implementation*. Retrieved from www.ecedata.org

This report provides a toolkit for states as they build integrated and aligned longitudinal data systems. It mainly focuses on strategies to connect the often disjointed early childhood and early grades data systems. The authors noted that properly aligned statewide longitudinal data systems that span the first eight years of life promote quality programming and help young children make seamless transitions in school. The report's

toolkit covers seven policy areas: state capacity; data governance; security and transparency; data linkage and matching; data quality; data access and use; and stakeholder engagement. These seven sections of the toolkit include background information on the policy area, discussion on effective state policy, and steps to achieve high-quality implementation. Each section also features rich state case studies. Throughout, the report stresses the role of evidence-based, cohesive measures of program quality to raise achievement.

12. Bornfreund, L. (2013). *An Ocean of Unknowns: Risks and Opportunities in Using Student Achievement Data to Evaluate PreK-3rd Grade Teachers*. Washington, DC: New America.

As an increasing number of states require evidence of student learning as a measure in their P-3 teacher evaluation systems, this policy report takes a deep look at the impact of this accountability practice. A policy review reveals that most states use one or a combination of three approaches to include student data: student learning objectives, shared assessments and shared attribution based on schoolwide, grade-level assessments. The author studied the implementation of these approaches in five states and three school districts, detailing the challenges and benefits of all three approaches. Policy recommendations include: account for the specialized skills and comprehensive roles of P-3 teachers when designing evaluation systems; pilot and continuously evaluate reliability of student data inclusion; and ensure that early grades teachers are not evaluated solely on schoolwide shared attribution data from later grades.

P-3 alignment findings in SREB states

Arkansas

Dougherty, C. & Fleming, S. (2012). *Getting Students on Track to College and Career Readiness: How Many Catch Up From Far Behind?* Iowa City, IA: ACT, Inc.

Using ACT data, this study seeks to determine if academically unprepared students are able to catch up and finish high school college and career ready. Nationally, the data indicates that no more than 10 percent of struggling eighth-graders met any one of the four ACT College Readiness Benchmarks by 12th grade. The researchers looked closer at ACT EXPLORE test results of fourth- and eighth-graders in Arkansas, finding that students who fell behind in the early grades generally were not able to catch up to their peers later in school. The study underscores the importance of aligned early detection and intervention practices in raising students' college readiness.

Maryland

Marietta, G. (2010). *Lessons for PreK-3rd From Montgomery County Public Schools*, New York, NY: Foundation for Child Development.

This case study highlights successful P-3 strategies in Maryland's Montgomery County Public Schools. The author described a coordinated early learning agenda that was implemented over a period of notable gains. At the same time that the proportion of English language learners doubled and the number of students from low-income families drastically rose, the county narrowed its racial achievement gap on the state third-grade reading assessment by 29 percentage points. Montgomery's successful early learning agenda features: high-quality early learning programs; aligned P-3 programs and services; teacher supports and monitoring to ensure effective policy implementation; and an accountability system focused on continuous improvement.

Tennessee

Swain, W.A., Springer, M.G., & Hofer, K.G. (2015). Early Grade Teacher Effectiveness and Pre-K Effect Persistence: Evidence From Tennessee. *AERA Open* (1.4), 1-17.

Studying the Tennessee Voluntary Pre-K Program, researchers assessed the role of early grades teacher quality on the program's often cited academic fadeout. They concluded that Tennessee pre-K participants who had a highly rated first-grade teacher performed better on end-of-year, first-grade assessments than classmates who had not attended pre-K. In fact, first-graders with cognitive delays and dual-language status who had attended Tennessee pre-K especially benefited from high-quality early grades teachers. The findings show that high-quality early grades teachers and instruction help prevent preschool benefit fadeout.

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