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MAKING THE CASE FOR P-3

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Introduction to the Project

Across the United States, many local communities and states have launched P-16 initiatives to create a “seamless system” of education – all levels of education – preschool through college – work together as one system, instead of several, to provide children with the experiences needed to become

successful students and productive citizens. Policymakers and advocates have spent the majority of their time and money addressing the transition from high school to college (see, for example, Callan et al. 2006; Daugherty 2005; Wimberly and Noeth 2005). This is not entirely surprising given that P-16 is often argued on economic imperatives (e.g., the United States needs better-prepared students in order to compete in the global marketplace) which focus attention on students who are at the later end of the education continuum – those in high school and moving into higher education and the workplace. To date, P-3 has received substantially less attention. Of the 28 states that have official P-16 initiatives, only seven have an explicit focus on P-3 (Kauerz unpublished). This paper “makes the case” for P-3, reviewing the rationales for why P-3 makes sense and should be pursued as a policy reform agenda.

Table of Contents

What is P-3	3
Guiding Principles Behind P-3	4
Why P-3? Why not K-3? ... Or P-6?	5
Why the Emphasis on P-3 Now?	5
<i>P-3 Benefits Infants and Toddlers</i>	5
<i>P-3 Benefits 3-, 4-, and 5-Year-Olds</i>	6
<i>P-3 Benefits Children in the Primary Grades (Grades 1-3)</i>	6
<i>P-3 Makes Education Reform More Child-Friendly</i>	7
<i>P-3 Benefits State and Local Policymakers</i>	8
Conclusion	8
References	9

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What is P-3?

P-3 focuses on the early years of the education continuum, beginning with the years before children enter school (Preschool) and extending through 3rd grade. The P-3 part of P-16 should not be confused with more traditional efforts to expand and improve early care and education (ECE), the services and programs for children from birth to age 5. While important, ECE represents only a portion of the P-3 puzzle. P-3 transcends the traditional boundaries of ECE and elementary school, embracing programs and services children experience from birth to about age 8 (the age of most children in 3rd grade), including preschool programs, kindergarten, and the early elementary grades (1st through 3rd). P-3 asserts that all of these preschool pathways and the K-3 elementary school years must provide children with consistent, continuous, and high quality opportunities to learn that prepare children to be eager and successful learners across their lifetimes.

Because terms such as pre-kindergarten (Pre-K or PK) and preschool are used so widely and, more importantly, so differently, it is necessary to be explicit about terms used in this paper. Here, “preschool” is used less as a noun and more as an adjective, encompassing all of the voluntary services and programs that children experience before their entry into the formal K-12 school system. Just as P-16 reformers look to improve the high school to college transition by ensuring multiple pathways for students – including vocational and 2- or 4-year college options – the P-3 perspective supports the notion that children will enter the public school system from different pathways. As such, “preschool” includes early intervention services, home visitation, nursery school, child care, family child care, pre-kindergarten (a distinct type of program that provides educational services to 3- and 4-year old children and is often administered by public schools), Early Head Start, and Head Start programs.

The next paper in this series will explore more fully specific policy changes that might be included in a P-3 reform agenda. To provide brief context here, though, P-3 expands children’s access to programs that are not currently available universally, including high-quality child care, pre-kindergarten, and full-day kindergarten. P-3 improves children’s transitions between programs (e.g., from pre-kindergarten to kindergarten) which most often involves ensuring strong communication and meaningful activities that prepare children and parents to better understand what to expect as they encounter new programs and new teachers. P-3 establishes standards – across preschool programs and the primary grades – for the quality of the programs themselves, for the qualifications of the adults who work in them, and for the experiences children have in them. These standards help to ensure that children have consistent and developmentally appropriate opportunities to grow and to learn during their early childhood years. P-3 ensures alignment of these standards so that children’s learning opportunities are continuous and build logically upon one another. There are two primary types of alignment. Horizontal alignment refers to the alignment of standards, curriculum, and assessment within a given age cohort; vertical alignment refers to the synchronicity of standards between programs that serve different age cohorts (Kagan and Kauerz 2007; Kauerz 2006). In short, P-3 integrates and aligns preschool programs, policies, and priorities with those of the early elementary grades (K-3). P-3 makes seamless the learning experiences children have from the time they are born until they leave 3rd grade.



Guiding Principles Behind P-3

Three guiding principles underlie P-3: parents and families are children's first and most important teachers; the "whole child" must be nurtured; and the multiple dimensions of school readiness are equally important.

First, P-3 is guided by the principle that children's parents and families are central to children's social, physical, and cognitive development. Intuitively, few people can dispute the crucial role that families play in children's development and learning. Research reinforces this intuition, with substantial evidence that family involvement affects children's outcomes – both positively and negatively – and that those impacts persist over time (Caspe, Lopez, and Wolos 2006; Doucet and Tudge 2007; Weiss, Caspe, and Lopez 2006; Ryan, Fauth, and Brooks-Gunn 2006). Families often provide the most immediate and the most consistent contexts for children's daily lives. Families instill the attitudes, values, skills and practices that shape how children both experience and act within the world. Families manage and coordinate the various environments – home, school and community – in which children learn and grow. As such, from a P-3 perspective, families often are the only – and, therefore, the most important – consistent context, providing a natural link between the ECE and elementary school environments.

Second, P-3 is guided by the principle that children's overall development is what matters most. Rather than focus only on children's reading and math abilities, P-3 aims to nurture the "whole child." This is a principle that has permeated public education in the United States since John Dewey and the early progressive education movement. Dewey formulated the aim of education not merely to make citizens or workers or mothers and fathers, but ultimately to make human beings who will live life to the fullest – "that is, who will continuously add to the meaning of their experience and to their ability to direct subsequent experience" (Cremin 1969). A more contemporary education reform perspective echoes Dewey's:

From the current policy debates about public education, one would think that U.S. society simply needs competent workers who will keep the nation competitive in the world market. But both history and common sense tell us that a democratic society expects much more: it wants graduates who exhibit sound character, have a social conscience, think critically, are willing to make commitments, and are aware of global problems (Noddings 2005).

P-3 continues these perspectives, acknowledging the importance of "whole child" approaches to education for young children. The "whole child" notion is reflected in the work of the National Education Goals Panel (Kagan, Moore, and Bredekamp 1995) which recognized that early learning



and development rest on five different dimensions: (1) physical well-being and motor development; (2) social and emotional development; (3) approaches toward learning; (4) language development; and (5) cognition and general knowledge. No single dimension garnered more attention or priority than any other; in fact, the panel noted that it is imperative that the dimensions be considered as a totality.

A third principle underlying P-3 is the belief that school readiness is multi-dimensional and not simply a measure of children's characteristics, skills and behaviors. Since the National Education Goals Panel made "readiness" its first goal in 1989, there has been tremendous action, debate and reconceptualization of the term "readiness." Many researchers, school administrators, and policymakers have focused on measuring children's readiness to succeed in school by creating and implementing accountability measures that range from benign screening tools to high-stakes testing in order to determine what children know and are able to do (Meisels 2007; Snow 2007). Others emphasize the importance of children's relationships with adults and other children, the environment in which children live, and the community-based opportunities they have to play, learn and grow (National Research Council 2001; National Research Council and Institute of Medicine 2000). For example, the Ready Schools Resource Group of the National Education Goals Panel focused on the essential attributes that elementary schools must have in order to support the learning needs of young children (Shore 1998). Since then, methodologically rigorous assessment tools have been created to measure schools' readiness (High/Scope Educational Research Foundation 2006). P-3 takes a broad view of school readiness, seeing it as a multi-dimensional construct that incorporates not only children's skills, behaviors and abilities but also the efforts and capacities of schools.

Why P-3? Why not K-3?... Or P-6?

It has often been said that the early childhood years represent a critical and sensitive period of development – a period during which the brain’s development and capacity to learn is particularly susceptible to both good and bad influences (National Research Council 1998, 2001; National Research Council and Institute of Medicine 2000). Why, though, is P-3 (birth to age 8) a more appropriate range than, for example, K-3 (age 5 to 8), PK-3 (age 3 to 8), or P-6 (birth to age 11)?

Starting the continuum at birth is supported by an impressive body of literature that shows that nearly 90% of human brain development occurs during the first three years of life (Carnegie Task Force on Meeting the Needs of Young Children 1994; Hart and Risley 1995; Shore 1997). Extending the continuum to 3rd grade is supported by another body of literature that shows that, by age 8, children have acquired a range of both academic and social competencies that form the foundation for later learning and development. By this time, children have acquired important processes that lead to complex changes in problem-solving and learning; for most children, by the end of 3rd grade, they are no longer learning to read but are reading to learn (Chall 1996; National Research Council 1998). Beyond cognitive development, the early childhood years are also a sensitive period for social, emotional, and communicative development that give children confidence and motivation to establish themselves as individuals, to develop meaningful relationships with others, and to become curious and enthusiastic lifelong learners. By age 8, most children have developed self-regulation and social competence, cornerstones of early childhood development that cut across all aspects of behavior, allowing children to make friends, get along with adults and peers, and to reap maximum benefits from a wide range of learning opportunities (National Research Council and Institute of Medicine 2000; McClelland, Acock, and Morrison 2006).



Why the Emphasis on P-3 Now?

State and local policymakers concerned about children’s development and learning face important and demanding issues such as the push to define, measure and improve school readiness and to create and expand pre-kindergarten programs for 3- and 4-year olds. Underlying P-3 is the belief that beginning to reform the country’s education system with 4-year olds (or, in some states, 3-year olds) is not beginning early enough. Policymakers are also concerned about meeting the accountability requirements of No Child Left Behind (NCLB), including establishing standards and assessing children’s achievement beginning in 3rd grade. Underlying P-3 is also the belief that beginning to reform education in 3rd grade is starting too late. Just like Goldilocks, if pre-kindergarten is not early enough and 3rd grade is too late, P-3 is just right. P-3 benefits children from birth to age 8; it also supports state and local policymakers’ efforts to appropriately and systematically make education reform more child-friendly.

P-3 Benefits Infants and Toddlers

Closely aligned to the research on brain development and sensitive periods is a concern that the current spotlights on school readiness, pre-kindergarten and NCLB are leaving out infants and toddlers. P-3 includes infants and toddlers in its scope, recognizing that very young children’s unique learning and development needs must not be left out of a broader understanding of how to nurture and maximize children’s lifelong learning.

The first three years of life certainly represent not only the most voluminous and rapid brain development (National Research Council and Institute of Medicine 2000; Shore 1997), but also a period of tremendous vulnerability because infants and toddlers are wholly dependent on adults for their health and well-being. These very young children are made even more vulnerable by the societal shifts occurring in the United States as the nation grapples with changing family structures, evolving gender roles, major transformations in the nature of work and its relation to family life and complex economic inequalities (Meisels and Shonkoff 2000). These challenges are evident in competing ideas about the balance of public and private responsibility for raising children, the “appropriateness” and desirability of women with very young children being gainfully employed outside of the home, and which mothers of very young children are deserving of having choices about employment.

Whether as a tacit response to society’s ambivalence about the role of public policy in the lives of very young children or as a byproduct of the reality of political advocacy wherein “you can’t be heard if you don’t have a voice,” infants and toddlers receive

little attention from policymakers. P-3 changes this by bringing explicit attention to the needs of very young children within the context of broad P-16 reform, emphasizing the importance of high-quality infant/toddler child care, home visiting, promotion of responsible parenthood, health and protection, and early intervention services. P-3 explicitly embraces the infant and toddler years, recognizing that it is during these years that children acquire crucial abilities and patterns that lay the foundation for lifetimes of learning and relationships.

P-3 Benefits 3-, 4-, and 5-Year-Olds

Since 1989, when the National Education Goals Panel declared that “by the year 2000, all children in America will start school ready to learn,” there has been widespread dedication to improving children’s “school readiness.” Over the past 18 years, policymakers and advocates have cited this “Readiness Goal” to promote the expansion of programs for young children, especially those that serve children in the years just prior to compulsory school. Indeed, the number of states with pre-kindergarten programs for 4-year olds has more than doubled in the last 20 years; 38 states have at least one state-administered pre-kindergarten program that serves children during the one or two years before they enter the formal K-12 education system (Barnett et al. 2006). Similarly, although often considered a standard beginning year of the American public education system, kindergarten (and full-day kindergarten, in particular) has received increased attention from policymakers as a crucial strategy in preparing children for the rigors of later learning and for success in life. Today, all but six states require school districts to offer half-day kindergarten and 10 states require districts to provide full-day kindergarten (Kauerz 2005).

These pre-kindergarten and kindergarten years are not inconsequential. The research is clear: many early learning programs (including high-quality child care, state-funded pre-kindergarten, and Head Start) for 3- and 4-year olds are an effective investment for helping children succeed in the short term. Children who attended an early learning program performed significantly better in both math and reading in the fall of their kindergarten year compared to children cared for only by their parents before kindergarten (Magnuson et al. 2005; Barnett, Lamy, and Jung 2005; Gilliam and Zigler 2000; National Research Council 2001). Beyond these short-term positive outcomes, research shows that high quality interventions during the pre-kindergarten years produce impressive long-term benefits to society including fewer grade retentions, fewer special education placements, increased high school graduation rates, decreased arrest rates, and increased employment earnings (Campbell et al. 2001; National Research Council 2001; Schweinhart et al. 2005). Similarly, there is increasing evidence of the efficacy of full-day kindergarten in boosting children’s academic

achievement (Ackerman, Barnett, and Robin 2005). Children who participated in full-day programs make important gains in reading and math skills by the end of the kindergarten year when compared to their peers who attended only a half-day program; these gains close the achievement gap between the highest and lowest performing students by nearly one-third in reading and by one-fourth in math (Walston and West 2004).

P-3 includes children of pre-kindergarten and kindergarten age in its scope, emphasizing the importance of high-quality early learning programs that bolster children’s skills, knowledge and behaviors.

P-3 Benefits Children in the Primary Grades (Grades 1–3)

While children show short-term gains in cognitive development at the end of pre-kindergarten and full-day kindergarten, those gains often are reduced or have faded out when measured a few years later (Magnuson et al. 2005; Rathbun, West, and Hausken 2004). It is important to consider the quality of elementary schools into which children enter. If children move from a high quality pre-kindergarten program into a low quality elementary school, it is not surprising that fade-out occurs. No matter how beneficial pre-kindergarten or full-day kindergarten were initially for young participants, such benefits are undermined if students are subsequently exposed to schooling of systematically lower quality (Currie and Thomas 2000; Lee and Loeb 1995; Magnuson, Ruhm, and Waldfogel 2007).

Unlike pre-kindergarten and full-day kindergarten, however, access to elementary school is guaranteed to all children in the United States. Because of the nearly universal experience of elementary school, the focus on the quality of elementary classrooms and the overall elementary school experience becomes even more important. Unfortunately, research shows that children’s classroom experiences in elementary school are of highly variable quality and, in direct contradiction to the holistic learning needs of young children, lacking both the instructional and emotional climates that have been shown to be related to positive child outcomes (National Institute of Child Health and Human Development Early Child Care Research Network 2005; Pianta et al. 2007). This is particularly problematic for low-income students, because placements into elementary schools are entirely dependent on residential location, with low-income children more likely to end up in low resource – and, therefore, low quality – schools (Clements, Reynolds, and Hickey 2004; Reed 2001; Schrag 2003).

P-3 ensures that children experience high-quality teaching and classroom practices throughout their early elementary school years. This is accomplished by bringing explicit focus to what children experience directly in their elementary classrooms (e.g., emotional supports, classroom organization, and

instructional supports) and to the overall elementary school environment (e.g., curricula, positive school environments, providing teachers with sufficient professional development supports). Together, these variables bolster children’s social, emotional and cognitive development in K-3 (Hamre and Pianta 2007). P-3 acknowledges that readiness must include ensuring that schools are ready and well-prepared to provide high-quality learning experiences to the diversity of children who enter their classrooms.

P-3 Makes Education Reform More Child-Friendly

P-3 makes education reform more child-friendly by ensuring consistent and continuous high-quality learning opportunities and by supporting those adults who have the most direct and profound impact on children’s learning and development – children’s families and teachers.

The simultaneous influences of the school readiness movement and NCLB’s emphasis on standards-based learning have accelerated efforts to define, describe, and measure young children’s skills, knowledge, and behaviors. NCLB requires states to establish statewide content standards that set out goals for what students should know and be able to do in core academic subjects in 3rd through 12th grades. In contrast to the attention given to grades three through 12, only 36 states have grade-specific standards for kindergarten, 1st and 2nd grades (Kauerz 2006, June). Early learning standards – or expectations of what children should know and be able to do before entering kindergarten – are increasingly prevalent; as of January 2004, 44 states had early learning standards and the remaining six states were in the process of developing them (Scott-Little, Kagan, and Frelow 2005). The existence of standards is not enough. To bridge these standards-based efforts, P-3 holds alignment as a central concept for ensuring that children receive quality learning experiences. Alignment is based on the premise that continuity of learning across age levels is essential for optimum child development; it highlights the continuous and progressive nature of learning and development. The skills and knowledge gained in one year serve not as an end point, but as a foundation upon which to build additional skills and knowledge (Kagan et al. 2006; Kauerz 2006).

With testing beginning in 3rd grade, this accountability-based climate is leading some educators to worry about the “push-down” of academic expectations where what used to be taught in 1st grade is now being taught in kindergarten and what used to be taught in kindergarten is now being taught

in pre-kindergarten (Posnick-Goodwin 2006). Simultaneously, there is concern that the focus on reading and mathematics is narrowing the elementary school curriculum and crowding out other crucial subject areas like social studies and science, not to mention physical education and art (Dillon 2006). P-3 emphasizes not only children’s cognitive and academic skills and accomplishments, but also their social, emotional, communicative and learning-related skills. P-3 encourages the development of learning standards – not just for 3-, 4-, and 5-year olds, but for all children from birth to age 8 – that prioritize ensuring that children develop characteristics such as curiosity, social competence and physically active lifestyles.

P-3 makes education reform more child-friendly by supporting children’s parents, families and teachers. As already noted, P-3 rests on a guiding principle that families are children’s first and most important teachers; P-3 emphasizes the importance of family involvement across children’s learning environments over time and aims to create multiple avenues for families’ ongoing participation. Further, P-3 recognizes the crucial role of teachers and sets standards that guarantee teachers – from preschool through 3rd grade – are valued, compensated accordingly, and given the education, training, and tools they need to succeed. For example, while there has been much national debate about requiring adults who work with 3- and 4-year olds in pre-kindergarten programs to hold bachelor’s degrees (Jacobson 2007), a P-3 perspective reframes the issue to address what are the skills, knowledge and behaviors that teachers of these children must share in common with adults who work with infants and toddlers, as well as K-3 teachers. This perspective might require not only additional years of formal education of some teachers, but also additional types of training and education for other teachers (e.g., requiring K-3 teachers to hold a credential, certificate or endorsement in early care and education).



P-3 Benefits State and Local Policymakers

The public policies that address the years from birth to age 8 are fragmented, unaligned and uncoordinated. The federal government and most states have policies that separate educational provision from care – most often putting early intervention, child care, pre-kindergarten and K-12 education under the auspices of different departments with different regulations and different funding streams. Moreover, many early childhood services are partially funded by government, but delivered in the private sector. The effect of this is a hodge-podge non-system of programs and services for young children with little coordination of administrative authority and oversight. As James Heckman, a Nobel laureate in economics, put it: “too often, government officials design programs for children as if they lived their lives in silos, as if each stage of a child’s life were independent of the other, unconnected to what came before or what lies ahead” (Heckman 2007).

Over the past decade, there has been increased interest from researchers, advocates and policymakers to coordinate, collaborate and, where possible, consolidate policies, programs and funding at the state level in order to begin to establish state-based “early care and education systems” or “early childhood systems” that function more like the “K-12 system” or the “system of higher education” (Kagan and Cohen 1997; Kagan and Rigby 2003; Gallagher, Clifford, and Maxwell 2004; Bruner et al. 2004). To support states’ efforts, many national foundations (e.g., Early Childhood Funders Collaborative, W.K. Kellogg Foundation), researchers in academia (i.e., National Center for Children and Families at Teachers College, Columbia University), and the federal government (i.e., State Early Childhood Comprehensive System) have launched system-building efforts. P-3 lays important foundations for these efforts by defining coherent standards that transcend disparate programs, departments and funding streams. P-3’s vision can serve as the backbone for creating better-defined institutions and visible leadership that increasingly are vested with the authority to establish and change policies. P-3 gives policymakers the opportunity and the means to look beyond the silos.

Conclusion

It is simplistic to assume that there is a single magic bullet solution to raising student achievement. Indeed, what research on early intervention suggests is that there is no program that, administered for one or two years, will ensure the success of children throughout their school careers and beyond. A P-3 approach, however, emphasizes that learning and development across the birth to age 8 span can – and should – have multiple dimensions that meet high standards and are well-integrated and aligned. Focusing on P-3 supports and enhances policymakers’ existing and ongoing attention to issues like school readiness, pre-kindergarten, and No Child Left Behind. More importantly, focusing on P-3 is crucial because it returns benefits to children, families, early learning programs, teachers and K-12 schools.



References

- Ackerman, Debra J., W. Steven Barnett, and Kenneth B. Robin. 2005. *Making the most of kindergarten: Present trends and future issues in the provision of full-day programs*. New Brunswick, NJ: National Institute for Early Education Research (NIEER), Rutgers University.
- Barnett, W. Steven, Jason T. Hustedt, Laura E. Hawkinson, and Kenneth B. Robin. 2006. *The state of preschool 2006: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W. Steven, Cynthia Lamy, and Kwanghee Jung. 2005. *The effects of state prekindergarten programs on young children's school readiness in five states*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers University.
- Bruner, Charles, Michelle Stover Wright, Barbara Gebhard, and Susan Hibbard. 2004. *Building an early learning system: The ABCs of planning and governance structures*. Des Moines, IA: State Early Childhood Policy Technical Assistance Network, Child & Family Policy Center.
- Callan, Patrick M., Joni E. Finney, Michael Kirst, Michael D. Usdan, and Andrea Venezia. 2006. *Claiming common ground: State policymaking for improving college readiness and success*. San Jose, CA: National Center for Public Policy and Higher Education.
- Campbell, Frances, Shari Miller-Johnson, Joseph Sparling, and Elizabeth Pungello. 2001. *Early childhood education: Young adult outcomes from the Abecedarian project*. Chapel Hill, NC: Frank Porter Graham Child Development Institute.
- Carnegie Task Force on Meeting the Needs of Young Children. 1994. *Starting points: Meeting the needs of our youngest children*. New York: Carnegie Corporation of New York.
- Caspe, Margaret, M. Elena Lopez, and Cassandra Wolos. 2006. "Family involvement in elementary school children's education." In *Family involvement makes a difference: Evidence that family involvement promotes school success for every child of every age*. Cambridge, MA: Harvard Family Research Project, Harvard Graduate School of Education.
- Chall, Jeanne S. 1996. *Learning to read: The great debate*. 3rd ed. Fort Worth, TX: Harcourt Brace College.
- Clements, Melissa A., Arthur J. Reynolds, and Edmond Hickey. 2004. *Site-level predictors of children's school and social competence in the Chicago Child-Parent Centers*. *Early Childhood Research Quarterly* 19:273-296.
- Cremin, Lawrence A. 1969. *The transformation of the school: Progressivism in American education, 1876-1957*. New York: Alfred A. Knopf.
- Currie, Janet, and Duncan Thomas. 2000. "School quality and the longer-term effects of Head Start." *Journal of Human Resources* 35 (4):755-774.
- Daugherty, Rebecca. 2005. *High school to college and careers: Aligning state policies*. Atlanta, GA: Southern Regional Education Board.
- Dillon, Sam. 2006. "Schools cut back subjects to push reading and math." *The New York Times*, March 26.
- Doucet, Fabienne, and Jonathan Tudge. 2007. "Co-constructing the transition to school." In *School readiness and the transition to kindergarten in the era of accountability*, edited by R. C. Pianta, M. J. Cox and K. Snow. Baltimore, MD: Brookes.
- Gallagher, James J., Richard M. Clifford, and Kelly Maxwell. 2004. "Getting from here to there: To an ideal early preschool system." *Early Childhood Research and Practice* 6 (1).
- Gilliam, Walter S., and Edward F. Zigler. 2000. A critical meta-analysis of all evaluations of state-funded preschool from 1977 to 1998: Implications for policy, service delivery and program evaluation. *Early Childhood Research Quarterly* 15 (4):441-473.
- Hamre, Bridget K., and Robert Pianta. 2007. *Learning opportunities in preschool and elementary classrooms*. In *School readiness and the transition to kindergarten in the era of accountability*, edited by R. C. Pianta, M. J. Cox and K. Snow. Baltimore, MD: Brookes.
- Hart, Betty, and Todd R. Risley. 1995. *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul H. Brookes.
- Heckman, James. 2007. "Beyond Pre-K: Rethinking the conventional wisdom on educational intervention." *Education Week*, March 21, 40.
- High/Scope Educational Research Foundation. 2006. *The ready school assessment: Making every school a place where every child can learn*. Ypsilanti, MI: Author.
- Jacobson, Linda. 2007. "Scholars split on Pre-K teachers with B.A.s." *Education Week*, March 28.
- Kagan, Sharon Lynn, Judith Carroll, James P. Comer, and Catherine Scott-Little. 2006. "Alignment: A missing link in early childhood transitions?" *Young Children* 61 (5):26-30, 32.
- Kagan, Sharon Lynn, and Nancy E. Cohen. 1997. "Not by chance: Creating an early care and education system for America's children." *The Quality 2000 Initiative*. New Haven, CT: The Bush Center in Child Development and Social Policy, Yale University.

- Kagan, Sharon Lynn, and Kristie Kauerz. 2007. *Reaching for the whole: Integration and alignment in early education policy. In School readiness and the transition to kindergarten in the era of accountability*, edited by R. C. Pianta, M. J. Cox and K. Snow. Baltimore, MD: Brookes.
- Kagan, Sharon Lynn, Evelyn Moore, and Sue Bredekamp, eds. 1995. *Reconsidering children's early development and learning: Toward shared beliefs and vocabulary*. Washington, DC: National Education Goals Panel.
- Kagan, Sharon Lynn, and Elizabeth Rigby. 2003. *Policy Matters: Improving the readiness of children for school*. Recommendations for state policy. Washington, DC: Center for the Study of Social Policy.
- Kauerz, Kristie. 2005. *Full-day kindergarten: A study of state policies in the United States*. Denver, CO: Education Commission of the States.
- . 2006. *Ladders of learning: Fighting fadeout by advancing PK-3 alignment*. Washington, DC: New America Foundation.
- . 2006, June. *K-2 standards and assessments: A 50-state review*. A paper prepared for the National Early Childhood Accountability Task Force. Philadelphia, PA: Pew Charitable Trusts.
- . Unpublished doctoral dissertation. *From birth to 3rd grade: Constructing a theory of P-3 for state-level policy reform*. New York, NY: Teachers College, Columbia University.
- Lee, Valerie E., and Susanna Loeb. 1995. *Where do Head Start attendees end up? One reason why preschool effects fade out*. *Educational Evaluation and Policy Analysis* 17 (1):62-82.
- Magnuson, Katherine A., Marcia K. Meyers, Christopher J. Ruhm, and Jane Waldfogel. 2005. "Inequality in children's school readiness and public funding." *Focus* 24 (1):12-18.
- Magnuson, Katherine A., Christopher J. Ruhm, and Jane Waldfogel. 2007. "The persistence of preschool effects: Do subsequent classroom experiences matter?" *Early Childhood Research Quarterly* 22:18-38.
- McClelland, Megan M., Alan C. Acock, and Frederick J. Morrison. 2006. "The impact of kindergarten learning-related skills on academic trajectories at the end of elementary school." *Early Childhood Research Quarterly* 21:471-490.
- Meisels, Samuel J. 2007. *Accountability in early childhood. In School readiness and the transition to kindergarten in the era of accountability*, edited by R. C. Pianta, M. J. Cox and K. Snow. Baltimore: Paul H. Brookes.
- Meisels, Samuel J., and Jack P. Shonkoff. 2000. "Early childhood intervention: A continuing evolution." In *Handbook of Early Childhood Education*, edited by J. P. Shonkoff and S. J. Meisels. Cambridge, U.K.: Cambridge University.
- National Institute of Child Health and Human Development Early Child Care Research Network. 2005. "A day in third grade: A large-scale study of classroom quality and teacher and student behavior." *The Elementary School Journal* 105 (3):305-323.
- National Research Council. 1998. *Preventing Reading Difficulties in Young Children*. Edited by C. E. Snow, M. S. Burns and P. Griffin. Committee on the Prevention of Reading Difficulties in Young Children, C.E. Snow, M.S. Burns, and P. Griffin, eds. Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.
- . 2001. *Eager to Learn: Educating Our Preschoolers*. Edited by B. T. Bowman, M. S. Donovan and M. S. Burns, Commission on Behavioral and Social Sciences and Education. Committee on Early Childhood Pedagogy, B.T. Bowman, M.S. Donovan, and M.S. Burns, eds. Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.
- National Research Council and Institute of Medicine. 2000. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Edited by J. P. Shonkoff and D. A. Phillips, Committee on Integrating the Science of Early Childhood Development. Committee on Integrating the Science of Early Childhood Development, J.P. Shonkoff and D.A. Phillips, eds. Board on Children, Youth, and Families. Washington, DC: National Academy Press.
- Noddings, Nel. 2005. "What does it mean to educate the whole child?" *Educational Leadership* 63 (1):8-13.
- Pianta, Robert C., Jay Belsky, Renate Houts, Fred Morrison, and National Institute of Child Health and Human Development Early Child Care Research Network. 2007. "Opportunities to learn in America's elementary classrooms." *Science* 315:1795-6.
- Posnick-Goodwin, Sherry. 2006. "Early childhood education: This is serious business." *California Educator* (February):6-21.
- Rathbun, Amy, Jerry West, and Elvira Germino Hausken. 2004. *From kindergarten through third grade: Children's beginning school experiences*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Reed, Douglas S. 2001. On equal terms: *The constitutional politics of educational opportunity*. Princeton, NJ: Princeton University Press.
- Ryan, Rebecca M., Rebecca C. Fauth, and Jeanne Brooks-Gunn. 2006. Childhood poverty: Implications for school readiness and early childhood education. In *Handbook of Research on the Education of Young Children*, edited by B. Spodek and O. N. Saracho. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Schrag, Peter. 2003. *Final test: The battle for adequacy in America's schools*. New York: The New Press.
- Schweinhart, Lawrence J., J. Montie, Z. Xiang, W. S. Barnett, C. R. Belfield, and M. Nores. 2005. *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press.

- 
- Scott-Little, Catherine, Sharon Lynn Kagan, and Victoria Stebbins Frelow. 2005. *Inside the content: The breadth and depth of early learning standards. Creating the conditions for success with early learning standards*. Greensboro, NC: University of North Carolina, SERVE.
- Shore, Rima. 1997. *Rethinking the Brain: New Insights into Early Development*. New York: Families and Work Institute.
- . 1998. *Ready Schools: A report of the Goal 1 ready schools resource group*. Washington, DC: National Education Goals Panel.
- Snow, Kyle L. 2007. “Integrative views of the domains of child function.” In *School readiness and the transition to kindergarten in the era of accountability*, edited by R. C. Pianta, M. J. Cox and K. Snow. Baltimore, MD: Brookes.
- Walston, Jill, and Jerry West. 2004. *Full-day and half-day kindergarten in the United States: Findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Weiss, Heather, Margaret Caspe, and M. Elena Lopez. 2006. “Family involvement in early childhood education.” In *Family involvement makes a difference: Evidence that family involvement promotes school success for every child of every age*. Cambridge, MA: Harvard Family Research Project, Harvard Graduate School of Education.
- Wimberly, George L., and Richard J. Noeth. 2005. *College readiness begins in middle school*. Iowa City, IA: ACT, Inc.