

Part III: What are the immediate barriers to achieving better outcomes for low-income children?

Achieving positive child development outcomes requires improving the quality of children’s interactions with adults across the settings where they spend time from birth to age five. Our research shows that responsive, sensitive, and warm interactions between infants, toddlers, and preschoolers and the adults in their lives are among the most important preparations for kindergarten.⁴⁶

Experts widely agree that parents are the most influential adults in young children’s lives, and their earliest teachers. Parenting explains 40 percent of the income-related cognitive differences between children at age four.⁴⁷ Research by Hart and Risley (2003) found high disparities between the number of words children hear by age three in high-income families versus those in low-income families (since labeled the “30 Million Word Gap”). This disparity, in turn, has a large effect on the size of children’s vocabulary at age three, which influences school performance.⁴⁸ At the most basic level, overall well-being, including education and employment, also influence a parent’s ability to support his or her child’s development.⁴⁹ In sum, many parents—and especially those living in poverty—could benefit from extra support to ensure their children are achieving desired developmental milestones. Unfortunately, effective voluntary parenting programs are not reaching all those who need them.

The strongest parenting programs—including 16 federally approved home visitation programs⁵⁰—can help parents form a secure attachment with their children and foster linguistic, cognitive, and social and emotional development. But despite \$1.5 billion in federal funding over five years, these evidence-based home visitation programs reached only 115,000 children in 2014,⁵¹ an estimated 2.5 percent of

46 These interactions improve children’s social-emotional functioning and social competence skills. By kindergarten, these skills have been shown to be significantly associated with positive young adult outcomes across education, employment, criminal activity, substance use, and mental health. Source: Damon E. Jones, PhD, Mark Greenberg, PhD, and Max Crowley, PhD, “Early Social-Emotional Functioning and Public Health: The Relationship Between Kindergarten Social Competence and Future Wellness,” *American Journal of Public Health*, published online ahead of print July 16, 2015: e1-e8.

47 Richard V. Reeves and Kimberly Howard, *The Parenting Gap*, Washington, DC, Center on Children and Families at the Brookings Institution (September 8, 2013), 3.

48 Betty Hart and Todd R. Risley, “The Early Catastrophe: The 30 Million Word Gap by Age 3,” *American Educator* (Spring 2003), 8.

49 The Annie E. Casey Foundation, *Creating Opportunity for Families: A Two-Generation Approach*, 2014.

50 List available at Health Resources and Services Administration Maternal and Child Health, “Home Visiting Models,” <http://mchb.hrsa.gov/programs/homevisiting/models.html>.

51 US Department of Health and Human Services Press Office, “HHS awards \$386 million to support families through the home visiting program,” February 19, 2015.

the need.⁵² Early Head Start can reach parents through home-visiting or center-based models, or a combination of both. Early Head Start, however, was reaching only 4 percent of eligible infants and toddlers as of 2012.⁵³ Despite the variety of programs that have shown evidence of effectiveness, many are subscale and limited in geographic reach. As a result, many communities lack a full range of diverse and effective parenting programs and other supports for mental health, maternal depression, and domestic violence. Nor do many communities have a consistent way to match families to the supports that could help them most.

In addition to the critical time spent with parents in their earliest years, young children also spend time in the care of other adults. These adults are found in center-based care and education (e.g., private child-care centers, nurseries and preschools, state pre-K, Head Start centers), licensed family-based child-care centers, or informal family, friend, and neighbor (FFN) care provided in a home-based setting by a caregiver other than a child's parent. Care arrangements are dynamic, and young children move among these four settings. Generally speaking, most infants and toddlers spend the majority of their time with parents. As they get older, more children spend the majority of their time in a center-based setting, as illustrated on the following page in Figure 4 for the ECLS-B cohort that was in kindergarten when surveyed.⁵⁴ ECLS-B does not differentiate family or group child-care homes that care for groups of children in a home-based setting. Though this setting is different from FFN and center-based care in important ways described below, children in this setting may be included in either FFN care or center-based care in the ECLS-B analysis.

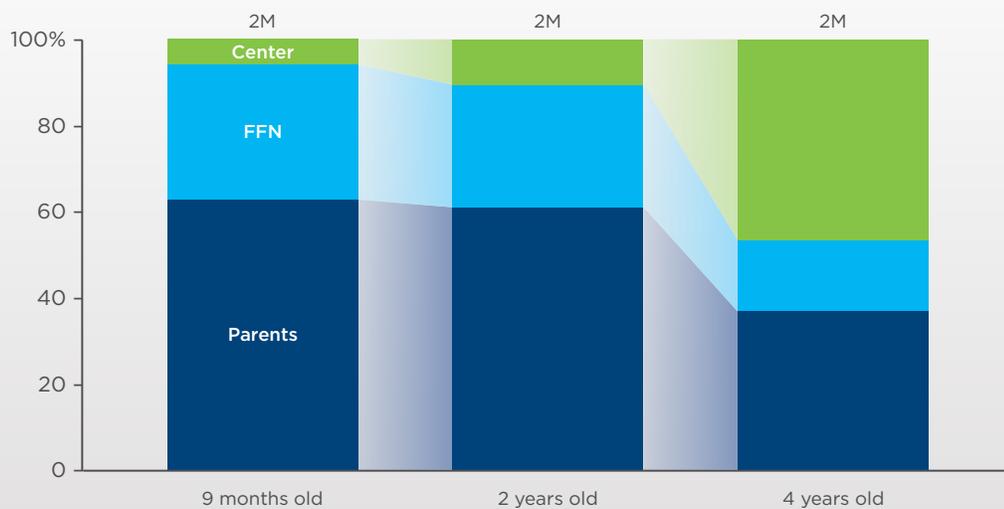
52 This proportion is based on Pew Center on the States's estimate of 4.5 million low-income infants and toddlers, in *States and the New Federal Home Visiting Initiative: An Assessment from the Starting Line*, Washington, DC: Pew Charitable Trusts (August 2011), 23.

53 Stephanie Schmit and Danielle Ewen, *Supporting Our Youngest Children: Early Head Start Programs in 2010*, Washington, DC: Center for Law and Social Policy (March 2012), 11.

54 Children often spend time in multiple settings. For the purposes of this figure, children in the "parents" setting spend less than 10 hours a week in either FFN or center-based care. Children in FFN and center-based care spend more time in those settings than in any other setting. Please see [Appendix C](#) for detailed definition of settings.

Figure 4: Estimated primary care setting for low-income kindergarteners, by age⁵⁵

% Low-income (<200% Federal Poverty Line) children in kindergarten, at three ages



Source: Analysis of ECLS-B (2006-7) and American Community Survey (2012).

Given the fluidity of where children spend their time before age five, it is important to invest in programs that help improve the quality of adult-child interactions across all settings. There is value in building formal systems that give parents high-quality child-care and education options for all ages. In addition, parents and FFN caregivers will continue to play a major role in individual children’s development and should also receive evidence-based voluntary supports. This is particularly true of children in immigrant families, who have lower rates of participation in nonparental care of any type, due in part to language barriers and cultural preferences for child care at home.⁵⁶

55 Based on analysis performed by Bridgespan on the ECLS-B (2006-7). Please see Appendix C for detailed definition of settings. While place of care is not measured nationwide by systematic methods, several surveys confirm these estimates. Halle et al. (2009) findings from the 2005 National Household Education Survey indicate that approximately 40 percent of nine-month-old infants are in some form of nonparental care at least once a week, and that FFN is the most common arrangement for those infants who are living below 150 percent of the federal poverty line. The National Institute of Child Health and Human Development (NICHD) (2006) uses the Study of Early Child Care and Youth Development (SECCYD) to show that approximately 50 percent of all six-month-olds (not just low-income) are in parental care, 42 percent in FFN (relative or other home-based care), and 9 percent in centers, and 23 percent of four-and-one-half year-olds are in parental care, 23 percent in FFN, and 54 percent in centers.

56 Lynn A. Karoly and Gabriella C. Gonzalez, *Early Care and Education for Children in Immigrant Families*, (Princeton, NJ: The Future of Children, Spring 2011), vol. 21, no. 1, 71-101.

Family, friend, and neighbor (FFN) care

We estimate that approximately 25 percent of low-income children under the age of five are spending a significant portion of their time in FFN care.⁵⁷ In the years before age three, more children are in FFN care than in center-based care. The millions of FFN providers, many of them grandparents and other family members, are often unpaid, unregulated, and difficult to involve in quality-improvement efforts. Many care for fewer than five children, which may mean they are not subject to licensing and state child-care requirements in some states. Furthermore, approximately half of unlisted⁵⁸ home-based providers (1.7 million) have no more than a high school education.⁵⁹ Given that many of these providers operate outside of the licensing and regulatory system, identifying and reaching this population is very challenging. However, many experts we interviewed agreed that, given the number of children in FFN care, even a small average improvement in the quality of FFN care would better prepare many young children for kindergarten.

Family or group child-care homes

Families seeking nonparental arrangements choose among a variety of options. Some children are in the care of an adult other than their parent in the caregiver's home. These settings vary greatly from one to the next, including a mix of: regulated/licensed child care and regulation-exempt care, paid and unpaid providers, and care by both relatives and nonrelatives delivered in a home-based setting. These family or group child-care homes vary by level of regulation and licensing status, depending on their state's cutoff for the number of children that can be cared for before that home-based setting must be licensed/regulated. While quality data on this setting is limited, there is a general belief that it varies dramatically across family child-care providers.⁶⁰

Center-based care and education

By age four, about half of low-income children are estimated to be spending a significant amount of their time in some form of center-based care or education.⁶¹

57 This number is estimated from Bridgespan's analysis of ECLS-B (2006-7), based on where low-income kindergarteners spent more than 10 hours per week under the age of five. Please see [Appendix C](#) for detailed definition of settings.

58 "Unlisted" caregivers are those who have not taken steps to secure licensing, apply for exempt status, or participate in Head Start.

59 National Survey of Early Care and Education Project Team, *Number and Characteristics of Early Care and Education (ECE) Teachers and Caregivers: Initial Findings from the National Survey of Early Care and Education (NSECE)*, OPRE Report #2013-38, (Washington, DC: Office of Planning, Research and Evaluation, Administration of Children and Families, US Department of Health and Human Services, October 2013), 16.

60 Bruce Fuller, Sharon Lynn Kagan, Susanna Loeb, and Yueh-Wen Chang, "Child Care Quality: Centers and Home Settings that Serve Poor Families," *Early Childhood Research Quarterly*, vol. 19 (2004), 505-527.

61 This number is estimated from Bridgespan's analysis of ECLS-B (2006-7), based on where low-income kindergarteners spent more than 10 hours per week under the age of five. Please see [Appendix C](#) for detailed definitions of settings.

These centers include state-regulated child care, Head Start, state-funded pre-K, and other centers that may not be regulated by the federal government. Quality varies widely across each of these centers. Barriers to higher quality include: the lack of incentives and resources for improving quality; the challenges to hiring, training, and developing quality staff; and some of the lowest levels of compensation in the US economy.

Experts define “quality” care and education as including a set of conditions and practices that include: sufficient teacher qualifications, appropriate child-teacher ratios and overall number of children in a group, quality materials and/or curriculum, teacher attention to fostering development and learning, and supportive and nurturing teacher-child interactions.⁶² Research has also demonstrated the positive impact of quality child care and illustrated wide variation in quality across centers.⁶³ In addition, research suggests that many center-based programs, including child care, Head Start, and pre-K, are falling short of their potential to help get children ready for kindergarten. Simply finding recent national surveys that measure the quality of child care is a challenge. However, one national longitudinal study from the early 2000s showed that only 26 percent of the child-care centers observed met guidelines for child/staff ratios (at age two), and only 39 percent of children in observed child-care settings received “a fair amount” of positive caregiving (the rest were worse).⁶⁴ With well over one million children in 18,000 centers across the nation,⁶⁵ Head Start is by far the largest early education program. However, despite an average annual federal investment of \$8,000 per child,⁶⁶ studies indicate that the Head Start network’s quality and impact are not consistent across sites, and that there is potential to improve outcomes.⁶⁷ There are also publicly funded pre-K programs in many states, but their quality is also mixed and access is often limited. In the 2013-2014 school year, only 29 percent of four-year-olds were enrolled in a state-funded pre-K program, and only five states met all benchmarks for teacher quality, class size, and teacher/student ratios.⁶⁸

The experts we interviewed suggested that one barrier to increasing the quality of these centers is that there are few incentives or resources available to improve

62 National Institute of Child Health and Human Development, *The NICHD Study of Early Child Care and Youth Development: Findings for Children up to Age 4 ½ Years*, NIH Pub. No. 05-4318, Washington, DC: US Department of Health and Human Services National Institutes of Health (January 2006), 8-10.

63 *Ibid.*, 12.

64 *Ibid.*, 9, 11.

65 Administration for Children and Families, “FY 2014 Head Start Program Fact Sheet,” 2014, <http://eclkc.ohs.acf.hhs.gov/hslc/data/factsheets/2014-hs-program-factsheet.html>.

66 US Department of Health and Human Services, Administration for Children and Families, “Head Start Program Facts Fiscal Year 2013,” obtained by dividing total federal funding of \$7.28 billion by total enrollment of 903,000.

67 Sara Mead, *Renewing Head Start’s Promise: Invest in What Works for Disadvantaged Preschoolers*, Bellwether Education Partners (July 2014), iv.

68 W. Steven Barnett, Megan E. Carolan, James H. Squires, Kirsty Clarke Brown, and Michelle Horowitz, *The State of Preschool 2014: State Preschool Yearbook*. New Brunswick, NJ: National Institute for Early Education Research (2015).

the conditions and practices that result in positive child outcomes. In most states, child-care centers become eligible for funding from the Child Care and Development Block Grants just by meeting health and safety standards—basic training in child development is not required in many cases.⁶⁹ Clearly, high standards for health and safety are essential, but they are not sufficient on their own to promote child development. In many states, child-care centers are subject to even less regulation than beauty salons and tattoo parlors.⁷⁰ Research has suggested that centers should be held accountable for maintaining conditions for learning and upholding quality professional practices that are tied to quality child outcomes.⁷¹

To increase accountability for quality, many states have implemented Quality Rating and Improvement Systems (QRIS). However, our interviews revealed that these systems are not yet reaching their potential. QRIS today are typically voluntary (which results in low participation) and do not yet consistently evaluate the presence (or absence) of quality conditions and practices. Moreover, states are evaluating and assessing programs without consistently investing in resources to help them improve, and funding is not linked to quality standards (so there are few incentives to participate). In a similar vein, the federal Head Start funding stream does not consistently reward high performance. In the last few years, the lowest-performing Head Start providers have been required to re-compete for funding, which is an important step to increasing quality across the program.

Given the importance of positive adult-child interactions, experts agreed that another barrier to improving center quality is the difficulty of hiring and training qualified staff who can engage in stimulating and supportive interactions with children.⁷² Infants have been shown to have better expressive language skills when their caregivers are better educated,⁷³ and preschoolers' language comprehension skills are higher when their caregivers have at least an associate of arts degree in a child-related field.⁷⁴ However, the experts we interviewed agreed that a number of barriers—including lack of state regulation, low salaries, poor working conditions, and limited professional development opportunities—hinder the recruitment, training, and retention of a high-performing early childhood workforce.

69 *We Can Do Better: 2013 Update*, Arlington, Virginia: Child Care Aware of America (2013).

70 Maryam Adamu, "New Child Care Regulations Are a Step in the Right Direction," *Center for American Progress*, Sept. 17, 2014.

71 Elliot Regenstein and Rio Romero-Jurado, *A Framework for Rethinking State Education Accountability and Support from Birth Through High School*, Chicago, IL: The Ounce of Prevention Fund, June 3, 2014.

72 Hirokazu Yoshikawa et al., *Investing in Our Future: The Evidence Base on Preschool Education*, New York, NY: Foundation for Child Development (October 2013).

73 Margaret R. Burchinal, Joanne E. Roberts, Laura A. Nabors, and Donna M. Bryant, "Quality of Center Child Care and Infant Cognitive and Language Development," *Child Development*, vol. 67, no. 2 (April 1996), 606-620.

74 Carollee Howes, "Children's Experiences in Center-Based Child Care as a Function of Teacher Background and Adult : Child Ratio," *Merrill-Palmer Quarterly*, vol. 43, no. 3 (July 1997), 404-425.

Finally, a third related barrier to quality center-based care is poor compensation for teachers. While research has consistently demonstrated the link between teacher compensation and program quality,⁷⁵ we aren't paying early childhood teachers nearly enough to attract the right people with the right educational qualifications. In 2013, child-care workers (who were not pre-K or Head Start teachers) were in the third earnings percentile of occupations in terms of mean annual salary (along with parking lot attendants). Pre-K teachers earn more but are still paid only 60 percent of a kindergarten teacher's salary.⁷⁶ Early childhood salaries are not commensurate with education: teachers with a bachelor's degree or higher earn, on average, only 55 percent the wages of their peers with the same education level in other professions.⁷⁷ These low salaries lead to high turnover rates—as high as 27 percent in for-profit centers.⁷⁸ Professional development efforts may therefore achieve limited impact if salaries in the early childhood teaching profession cannot attract and retain qualified workers.

Across settings, we lack sufficient capital to invest in both existing programs and innovation, and we lack data that can tell us where to invest.

Federal and state spending on children is largely directed at school-age children. The United States ranks 31st in a group of 32 developed nations in the percentage of public education dollars allocated to early childhood.⁷⁹ According to experts we interviewed, we also are underinvesting in innovation to address several early childhood challenges, including engaging FFN caregivers, reaching early childhood teachers with effective professional development, developing curricula that increase learning in center-based care, and developing lower-cost parenting and family engagement models that might be the easiest to scale.

Across the sector, data and measurement are limited and are not consistently aligned with the same outcomes, so it is hard to know what is working, what is not, and where to best direct resources. In our research, the most promising approach involved implementing developmental screenings from birth to age five across the five kindergarten-readiness domains, which some communities are doing using tools like the Ages and Stages Questionnaire®. However, population-wide screenings before kindergarten are difficult to implement, given that children are in different settings and can be challenging to reach. An alternative approach would be to assess child development at age four in pre-K, with such tools as the Early Development Instrument (the EDI), to create a neighborhood-level snapshot of child needs and inform where interventions could help children at

75 Leone Huntsman, *Determinants of Quality in Child Care: A Review of the Research Evidence*, New South Wales, Australia: Centre for Parenting and Research, NSW Department of Community Services, April 2008.

76 Ibid., 16-17.

77 Ibid., 21.

78 Ibid., 30.

79 Eduardo Porter, "Investments in Education May Be Misdirected," *The New York Times*, Economic Scene, April 2, 2013.

earlier ages. Some states, private funders (e.g., the Commonwealth Fund), and independent child-care providers (e.g., Head Start grantees) have undertaken initiatives to expand developmental screenings to more children.⁸⁰ However, we are not yet deploying these tools systematically to assess a child's development prior to entering the school system. While tools like the EDI are commonly used in other countries such as Australia and Canada, these metrics are not systematically assessed and collected across the United States for children before age five.

Assessment prior to kindergarten is critical, given that so much brain development occurs before age five. We must have data on individual children to help parents and caregivers intervene at the point in a child's life where these interventions can do the most good. In addition, population-level assessments can help communities decide when and how much to invest in child development. Those interviewed agreed that ideally tools like Kindergarten Entry Assessments would be consistent across the nation and measure all five domains of kindergarten readiness, and child development would be measured at regular intervals throughout children's early years.

To state the obvious, the early childhood field is a complex one. Figure 5 on the next page has helped us make sense of this field by illustrating the systems, organizations, and individuals operating at federal, state, and local levels that must join forces in order to promote healthy whole-child development, working towards a unifying goal of preparing children for kindergarten, school, and life. This unified picture has informed our choices about where to invest by illustrating the many potential areas of investment, how each might—and might not—contribute to the outcomes we seek, and where collaboration with other efforts will be needed.

⁸⁰ Christine Johnson-Staub, *First Steps for Early Success: State Strategies to Support Developmental Screening in Early Childhood Settings*, Washington, DC, CLASP (October 2014).

Figure 5: Components of an effective ecosystem for children from birth to five

