Poverty and early care and education

Three panelists addressed the relationship between poverty and early care and education. Jane Waldfogel summarized current evidence on early childhood policies and suggested that expanding policies that promote early learning, improving income supports, and implementing complementary policies during a child's years in K–12 schooling could help reduce the intergenerational transmission of poverty. Terri Sabol considered the question of what constitutes "high-quality" early care and education, which is often associated with better outcomes for children, and described two studies of quality assessment tools, suggesting that measures of structural quality such as class size and teacher-child ratios are not consistently associated with children's learning, whereas measures of the quality of teacher-child interactions are. Christina Weiland considered the implications of scaling up preschool programs that have been successful in improving academic achievement and reducing inequality. She presented the results of a pilot study to expand the Boston Public School's prekindergarten model to community-based preschools, which brought to light a number of facets of these centers that presented barriers to implementation, but also identified some advantages and opportunities in locating preschools in community-based organizations. This set of articles summarizes their presentations.

What is the role of early childhood policies in fighting intergenerational transmission of poverty?

Jane Waldfogel

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The persistence of large achievement gaps by socioeconomic status is an important factor in the intergenerational transmission of poverty. Because these gaps are already present early in life, there is an opportunity for early childhood policies to make a difference. This article summarizes current evidence on early childhood policies and identifies promising policies in the areas of early learning, education, and income support.

Why focus on educational inequalities?

In 1964, President Johnson declared an "unconditional war on poverty in America." Fifty years later, we have made some progress on income poverty. Figure 1 shows rates over time for the official poverty measure and the Supplemental Poverty Measure, carried back historically and adjusted for inflation. Poverty assessed using the official poverty measure, which looks only at pre-tax cash income and uses a threshold set at three times the cost of a minimum food diet in 1963, has fluctuated but not changed greatly over time. However, there has been a dramatic drop in poverty as measured by the Supplemental Poverty Measure, which accounts for a fuller range of income sources and expenses and uses thresholds calculated from Consumer Expenditure Survey data on basic necessities (food, shelter, clothing, and utilities) and adjusted for geographic differences.

In addition to reductions in income poverty, there has also been progress on decreasing inequalities in other areas such as nutrition and health.[1] However, very large educational inequalities remain, and these present a major challenge in fighting intergenerational transmission of poverty. Although racial and ethnic disparities in educational outcomes have narrowed, there are large and growing achievement gaps between children from low and high socioeconomic status families. These growing socioeconomic status gaps in achievement have occurred in parallel with growing gaps in family resources—a phenomenon that Sara McLanahan calls "diverging destinies."[2] McLanahan finds that since the 1960s, educational attainment is increasingly associated with a variety of outcomes, so that children born to women with high levels of education also benefit from resources of parental time and money, while those born to women with

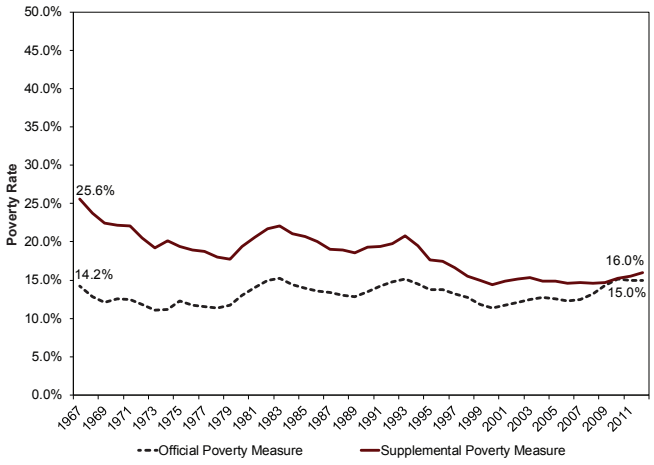

Figure 1. Official and Supplemental Poverty Measure rates, 1967–2012.

Note: Rates based on the Supplemental Poverty Measure are anchored in 2012 and carried back historically, adjusting for inflation.

Source: C. Wimer, L. Fox, I. Garfinkel, N. Kaushal, and J. Waldfogel, "Progress on Poverty? New Estimates of Historical Trends Using an Anchored Supplemental Poverty Measure," Demography 53, No. 4 (August 2016): 1207–1218.

low education levels lag behind. Investments in children are also diverging, as shown by Greg Duncan and Richard Murnane, who found that between 1972 and 2006, the gap in per-child parental spending on education-related items and activities such as music and art lessons, children's books and toys, sports equipment and classes, and tutoring between children from families in the top fifth and bottom fifth of the income distribution grew from about $2,700 in 2008 dollars in 1972 to over $7,500 in 2005.[3] Robert Putnam found a similar divergence over time by education level in the time spent by parents reading to their children.[4]

Educational inequalities in the United States compared to other countries

To put the U.S. inequalities into perspective, Bruce Bradbury, Miles Corak, Elizabeth Washbrook, and I compare the United States with Australia, Canada, and the United Kingdom. We found that, compared to these other wealthy countries, the United States has larger achievement gaps and less intergenerational mobility.[5] Although there is a gap in family resources by socioeconomic status (represented by education level) in all four countries, this inequality is starkest in the United States. For example, in the United States, incomes for families with high levels of parental education (bachelor's degree or higher) are 1.8 times as large as in medium-educated families (some education beyond high school), and three times as large as in low-educated families (high school degree or less). The comparable differences are markedly smaller in the other three countries, particularly Australia. The disadvantage experienced by children from low socioeconomic status families in the United States is compounded by the fact that the U.S. safety net and supports for working families do the least among the four countries to combat income inequality.

The countries also differ on educational policies and outcomes. With respect to universal preschool, both Australia and the United Kingdom provide universal preschool, but in the United States and Canada—where preschool is not universal—there is significant variation by socioeconomic status. Families with high parental education have higher enrollment in preschool than families with low parental education. With respect to cognitive skills and achievement of children, inequality by parental education is significantly larger in the United States than in the other countries both at school entry and during school years.

What can we do in early childhood to reduce intergenerational transmission of poverty?

Children from low socioeconomic status families face considerable challenges, and more so in the United States than in other countries. Their parents not only lack education, they also tend to be younger, live in less stable families, and have lower incomes than high socioeconomic status families, who are investing heavily in their children. These inequalities are exacerbated by a less robust safety net than is provided by peer countries, lacking paid parental leave, universal preschool, reliable income supports, and until recently universal health care.

Children from low socioeconomic status families are behind even before they start school, meaning there is an important role for early childhood policies. While not all early childhood policies are effective, we do have good evidence to support expanding policies to promote early learning. Such policies would include evidence-based parenting programs for families with infants and toddlers[6] and universal high-quality preschool for three- and four-year-olds.[7]

In addition, it is important to expand income support policies to raise family incomes for the poor and near-poor by: raising the minimum wage; expanding the Earned Income Tax Credit and the Child Tax Credit, and/or implementing a universal child allowance (which would provide a cash grant to all families with children); strengthening food and nutrition programs such as the Supplemental Nutrition Assistance Program (SNAP), school meals, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); and providing supports for working families, through measures such as paid family and medical leave.

The effects of early childhood policies would be enhanced by complementary policies in the school years. In addition to continued income supports, policies to improve the quality of teaching and learning in schools would focus on: recruiting, supporting, and adequately compensating more effective teachers; implementing more rigorous curricula such as Common Core; and setting higher expectations and providing more support for low-achieving students through evidence-based interventions.

While the U.S. record sometimes suggests there is little we can do to reduce educational inequalities and the intergenerational transmission of poverty, the experience of peer countries suggests we can and should do better.■

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[1]S. Danziger and M. Bailey, eds., *Legacies of the War on Poverty* (New York: Russell Sage Foundation, 2013).

[2]S. McLanahan, "Diverging Destinies: How Children Are Faring Under the Second Demographic Transition," *Demography* 41, No. 4 (November 2004): 607–627.

[3]G. J. Duncan and R. J. Murnane, eds., *Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances* (New York: Russell Sage Foundation, 2011).

[4]R. D. Putnam, *Our Kids: The American Dream in Crisis* (New York: Simon & Schuster, 2015).

[5]B. Bradbury, M. Corak, J. Waldfogel, and E. Washbrook, *Too Many Children Left Behind: The U.S. Achievement Gap in Comparative Perspective* (New York: Russell Sage Foundation, 2015).

[6]R. Haskins and G. Margolis, *Show Me the Evidence: Obama's Fight for Rigor and Results in Social Policy* (Washington, DC: Brookings Institution Press, 2014).

[7]C. Ruhm and J. Waldfogel, "Long-Term Effects of Early Childhood Care and Education," *Nordic Economic Policy Review* 1 (2012): 23–51.

What is "high-quality" early care and education?

Terri J. Sabol

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Jane Waldfogel suggested the provision of "high-quality preschool" as one component of a strategy to reduce the intergenerational transmission of poverty; however, what constitutes "high quality" with regard to early care and education is not clear-cut. In this article, I offer some ways to consider this very challenging question by describing a study that looked at whether common indicators of preschool quality are related to child outcomes.

Quality early care and education

Recent increased investment has expanded low-income children's access to early care and education programs. Although, as Jane Waldfogel pointed out, there are disparities in preschool attendance between children from lower and higher socioeconomic status families, nevertheless a sizable proportion of low-income children attend center-based care in the United States. In this article, I do not look at how we can increase access to these programs, but rather at the experiences of children who are already attending center-based care, and how we might think about measuring and improving those experiences.

Evidence of the effectiveness of early care and education at providing school-readiness skills varies: model programs from the 1960s and 1970s such as Perry Preschool and Abecedarian that served a small number of very disadvantaged children were found to be very effective. However, effect sizes got smaller as these programs were scaled up to statewide prekindergarten programs, and even smaller for Head Start, the largest federally funded program for low-income children. Even within a program, effectiveness may vary greatly; for example, a study across centers of the effects of Head Start on children's cognitive and socioemotional skills found that some centers had very large effect sizes and were much more effective than other locally available programs, while others were much less effective than local alternatives.[1]

This large variation across and even within program models raises the question of *why* some programs produce larger effects than others. There are a number of different ways to consider this question, including who the comparison group is, which child outcomes are examined, characteristics of children included in the study (such as age, race and ethnicity), the location of the program, and the length and intensity of the intervention. However, here I focus on quality of the programs; that is, what it is about how the program operates that explains differences in effectiveness.

Measuring quality

Our thinking about quality can be somewhat circular, in that we identify programs as high quality *because* they produce results, rather than trying to identify the particular components that make programs effective. But early childhood programs are complex, with many moving parts. What drives quality, how to measure quality, and how to ensure quality in an early childhood setting have largely remained hidden in a "black box." While the field has taken initial steps to improve measures of quality, we need much better knowledge on what specific program inputs and practices are linked to which outcomes for children. We cannot invest in—or improve—quality when we do not understand what it is.

I draw on theories from developmental psychology theory to try to focus more on the contexts in which children learn. Attachment theory suggests that when parents provide emotional support, and a predictable, consistent, and safe environment, children become more self-reliant and are able to take risks as they explore the world because they know that an adult will be there to help them if they need it. Social-motivation theories suggest that children are most motivated to learn when adults support their needs. These theories apply to classrooms as well, suggesting that the primary caregiver in the classroom can act as a secure base to explore the world. Although curriculum may matter, it is really how the teacher implements the curriculum that makes the biggest difference.

A model of classroom quality must of course include structural elements of quality such as health and safety, class size and child-adult ratios, and staff qualifications. But we also need to consider process elements of quality such as the classroom environment and teacher-child interactions. However, when we think about regulating or assessing quality, the focus is usually on structural elements. These elements tend to be both relatively straightforward and relatively inexpensive to measure.

A popular way of assessing both structural and process elements is to use Quality Rating and Improvement Systems (QRIS), state-level rating systems that provide consumer-friendly levels of quality that can be easily accessed by parents. In addition, these systems also provide services and supports to providers that are specifically designed to raise the quality of early care and education programs. States can select individual indicators of quality, which are weighted to create an overall rating, with the intent that higher ratings represent higher levels of quality. Table 1 shows the proportion of states using particular measures to assess quality within their QRIS.

Table 1
Proportion of States Using Particular QRIS Measures

Quality Indicator	Percentage of States Using Indicator for Rating in Quality Rating and Improvement Systems
Classroom Environment	98%
Staff Qualifications and Training	95%
Family Partnerships	90%
Program Administration, Management, and Leadership	88%
Curriculum	83%
Health and Safety	75%

While the QRIS model is popular and has been adopted by numerous states, implementation has far outpaced the research. There is no strong empirical evidence to establish whether the QRIS model is the best way to measure quality, particularly in the current landscape where many children are already attending programs that meet minimum regulations for quality, and most past research was done in the 1990s or early 2000s when the quality of care was much lower. The QRIS model assumes a direct relationship between all quality indicators and child outcomes, though it is not clear that this actually holds true.

Are common indicators of quality related to child outcomes?

A study I conducted with Sandra Soliday Hong, Robert Pianta, and Margaret Burchinal assesses whether the assumptions of the QRIS model are true. We looked at state-funded pre-kindergarten programs using five quality indicators: (1) staff qualifications, including teacher and director level of education and years of experience; (2) staff-child ratio and group size; (3) family partnerships; (4) learning environment; and (5) the quality of interactions between teacher and children. The first four indicators are among the most popular QRIS indicators; the fifth is an additional indicator we added that was not commonly used in QRIS at the time (this has since changed). Of the five indicators, we found that (5), the measure of teacher-child interaction quality, was the strongest predictor of children's learning in math, pre-reading, language, and social skills, followed by (4), the learning environment.[2] The structural quality measures of staff qualifications, staff-child ratio, and family partnership were less consistently associated with children's learning.

We then tried to replicate these results in a larger study including programs with a wider range of quality; we used data from six large studies of early care quality covering 2,078 programs attended by over 11,000 three- and four-year-olds. The conclusions of this larger study were similar to the first, although we did find that the education level of the program director was related to child outcomes.[3] In the larger study, we were also able to include a curriculum measure, and we found that to be associated with social skills.

Taken together, these two studies suggest that structural measures are not consistently associated with child outcomes, with the exception of the program director's education level, which may in fact be an indicator of program climate or some other process measure. We do find that teacher-child interactions are associated with children's learning. We recognize that this presents a challenge to those seeking to rate preschool programs, since it is expensive and time-intensive to conduct high-quality, reliable classroom observations using evidence-based tools. These observation-based measures were also not developed to be used in a setting where the continued existence of the program depends on the outcome, so it is an open question of whether it is the best tool to use within preschool accountability and monitoring systems. Overall, the studies suggest that we need to align our conceptual framework about quality to the ways in which we are actually measuring it, particularly in policy contexts.

Future directions

One interesting question that comes from this research is why we found no connection between family partnership and child learning. There is certainly evidence that parents play a very important role in children's development—Jane Waldfogel noted that parental education is strongly associated with children's achievement. So why are the measures that we typically use to assess family partnership not associated with child outcomes? We found that these measures typically focus on what parents are doing in their children's school—whether they are volunteering, visiting the classroom, and attending family events. Less attention is paid to direct services being provided to parents, including parenting interventions. There seems to be an opportunity to expand how we think about measuring family partnership in a way that captures something related to child outcomes. For example, we surveyed parents in Illinois to identify which types of education and financial support services they currently have access to through their children's early education program, and what they would like to have offered. We found several types of services, including career support, college support, and financial coaching, in which many more parents had an interest than had current access.

Overall, future efforts to measure quality need to focus more on processes rather than primarily on structural components. Great opportunities remain to improve our investment in early childhood by being thoughtful about program content.■

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[1]H. S. Bloom and C. Weiland, "Quantifying Variation in Head Start Effects on Young Children's Cognitive and Socio-Emotional Skills Using Data from the National Head Start Impact Study," Working Paper, MDRC, March 2015.

[2]T. J. Sabol, S. L. Soliday Hong, R. C. Pianta, and M. R. Burchinal, "Can Rating Pre-K Programs Predict Children's Learning?" *Science* 341, No 6148 (August 23, 2013): 845–846.

[3]S. L. Soliday Hong, T. J. Sabol, M. R. Burchinal, L. Tarullo, M. Zaslow, and E. Peisner-Feinberg, "Early Care and Education Quality and Relations to Child Outcomes: A Meta-Analysis of Six Large Child Care Studies," (under review at Child Development 2016).

Can successful preschool programs work outside public schools?

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It has been well established, as Jane Waldfogel noted in her article in this issue, that preschool *can* improve child academic achievement and reduce inequality. The next question, then, is whether successful programs can be scaled up to reach a broader population. In this article, I look at a pilot program to expand the Boston Public School's prekindergarten model to community-based preschools.

Public and community-based preschool

Overall, 45 percent of children who receive state preschool funding are served in programs operated by private organizations rather than public schools.[1] It is likely that the setting for preschool matters; there is some evidence that children make larger gains in cognitive and socioemotional skills when they are in public school-based programs compared to community-based preschools.[2] The mechanisms through which this could occur are not clear; it is possible that the higher pay that public schools are often able to offer attracts stronger teachers, that there are differences in how programs are structured, or that different types of families tend to be selected into different settings.

There are also long-standing concerns about having a "two-tiered" system, where fewer resources are available to community-based programs compared to those that are based in public schools.[3] With many public schools facing demand for preschool that exceeds availability, it is likely that a significant number of children will continue to attend preschool in other settings; it is thus important to understand the implications of this mixed-setting approach, and to determine whether there are ways to ensure that all children have access to high-quality preschool.

The Boston Public Schools prekindergarten model

In Boston, prekindergarten for four-year-olds became available district-wide in 2005. The program model was adjusted after early evidence showed that instructional quality could be improved. The district then made significant investments in program quality, including implementing proven play-based language, literacy, and mathematics curricula, and providing regular meetings with coaches to help support teachers as they implemented the new curricula. Since 2005, prekindergarten teachers in the district have been paid on the same scale as K–12 teachers and are subject to the same educational requirements. The educational requirements in the district are fairly stringent. For example, teachers must have a master's degree within five years of their start date. While the program is open to any child in the city, the high proportion of students in the district who receive free or reduced-price lunch (around 70 percent) means that prekindergarten is effectively targeted to a largely low-income population.

A study I completed with my colleague Horiokazu Yoshikawa found that the Boston program had moderate to large effects on skills targeted by the program, namely, children's vocabulary, early reading, and math skills.[4] We also found smaller effects on children's self-regulatory skills. The Boston program differed from other large-scale prekindergarten programs in the quality of instruction provided to children in the class. As Figure 1 shows, while other programs do a similarly good job of providing emotional support to children, the Boston program outperforms others at providing instructional support.

Expansion to include community-based centers

In 2013, the Boston program expanded, through a pilot program, to include 10 community-based day care centers, with a total of 14 additional classrooms. Policymakers in Boston were interested in expanding into community-based programs not only to address public school capacity issues, but also to attempt to reach a different population. Unlike many of Boston's public school-based sites, the community-based sites are able to offer full-day care, which may provide a more attractive option to working parents. Programs in the pilot received supports that matched or were similar to those in the public schools: the same curricula materials and similar training and coaching; support and training for center directors; and increased pay. Prior to the pilot, teachers in community-based centers were earning less than the Massachusetts average; the pay raise increased their hourly wages from an average of around $13 to $23 in 2014 dollars. The hope was that this increase would improve instruction quality and increase teacher retention, satisfaction, and motivations, ultimately improving child outcomes.

Teachers in the community-based programs had a similar amount of teaching experience compared to those in the Boston Public Schools, but were much less likely to have a master's degree. The student population also differed, partly

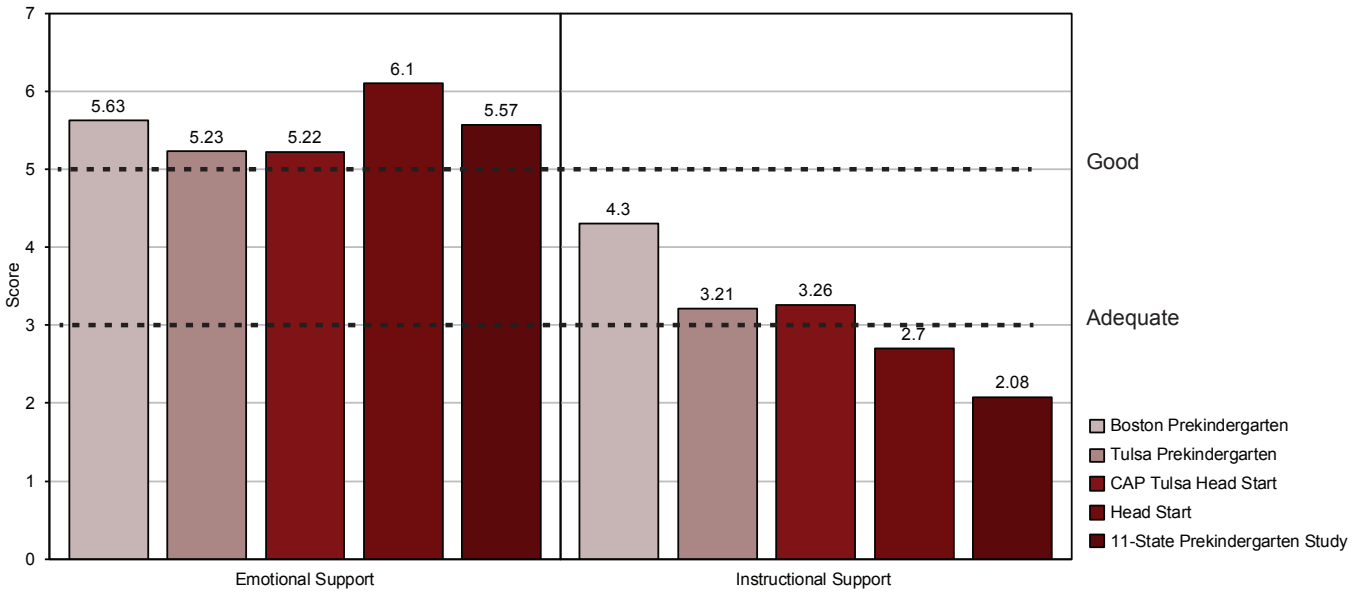

Figure 1. Boston prekindergarten quality in the context of other large-scale programs.

Notes: Scores measured using the Classroom Assessment Scoring System, an observational instrument with a seven-point scale.

Source: A. Chaudry, T. Morrissey, C. Weiland, and H. Yoshikawa, Cradle to Kindergarten: A New Plan to Combat Inequality (New York: Russell Sage, 2017).

because of the neighborhoods in which the community-based centers were located; students at the pilot sites were about twice as likely as those in the public schools to be African American.

Evaluating the outcomes of program expansion

The Boston Public Schools pilot provided an opportunity to study whether a successful program model can be scaled up to reach a broader population. Monica Yudron, Jason Sachs, and I considered two research questions in relation to the expansion: (1) Does implementing the Boston model in community-based centers improve instructional quality? and (2) Are there practical barriers to successful implementation that could be addressed in future scale-up efforts?

Did instructional quality improve?

We found that instructional quality with respect to language and literacy did increase, but these gains were not fully sustained through the two-and-a-half-year pilot period. For math instruction, there was little change in quality over the pilot period. We also found that neither language nor math instructional quality reached the level provided by the school-based sites, though for language and literacy the gap between the two did decrease over the study period. The quality of emotional support, classroom organization, and instructional support also fell short of that provided at the school-based sites.

One of the challenges encountered in scaling up the program was that adherence to the provided curricula was low to moderate, with three classrooms implementing at a high level, seven at a medium level, and four at a low level. In particular, although full implementation of the curricula requires about three-and-a-half hours of instructional time per day, on average only 80 minutes of the community-based centers' core three-hour morning instructional time (44 percent of the available time used for instruction equaling about 38 percent of the required amount of time) was spent on instruction. This reflects the fact that in public schools, instruction begins at a specific time every day because all children are required to be present at the beginning of the school day, but in community-based centers drop-off times vary, and instruction generally begins only when the majority of students have arrived.

What are the barriers to implementation?

Interviews with teachers and directors from the pilot sites suggested several ways that implementation was undermined. For example, teachers wanted to maintain the previous curriculum and this took away from the time available to implement the new curricula. Also, opportunities for teachers to plan and work together to implement the needed changes were limited. In public schools, teachers are provided some common planning time by having other staff monitor lunch periods or provide nonacademic instruction; this structure did not exist in most of the community based-centers. The lack of common planning time interfered with centers' ability to schedule coaching sessions and made it more challenging for teachers to collaborate on implementing the new curricula.

Retention over the pilot period was 71 percent for teachers and 60 percent for directors. While some of this turnover occurred because teachers were inspired to pursue a master's degree, the larger problem was that when staff

left, few qualified staff applied, and open positions were often not filled for many months. While the intention of the support and training provided to community-based center directors as part of the pilot was for them to serve as instructional leaders, this often did not occur. Again, the lack of infrastructure common in public schools meant that directors often had to attend to an array of time-sensitive administrative and maintenance needs rather than being able to provide instructional leadership.

The public school sites also had access to on-site special education services that community-based centers generally did not have, making it harder for teachers to effectively deal with challenging child behaviors. Finally, mixed-age classrooms provided a significant challenge; community-based sites included three-year-olds in their prekindergarten classrooms in order to stay financially viable, although the Boston program model was developed for four-year-olds. This issue was exacerbated by children sometimes being moved up to the older class before their third birthday, because of higher demand for spots in the younger-child classrooms. Having such a wide age range in one classroom often made it challenging to provide quality instruction to all children.

We looked at how the presence or absence of these barriers were correlated with instructional quality. We found that having a stable teaching team and the same director over the entire pilot period was positively associated with instructional quality, while the presence of three-year-olds and teachers' reluctance to give up the old curriculum were negatively associated with quality.

Advantages of community-based preschools

Although we did identify numerous barriers to implementation in community-based preschools, we also found that those sites had some advantages. Because the pilot sites, unlike public schools, did not provide any transportation to the sites, staff had more contact with parents, so teachers at the pilot sites were more likely to receive information about issues at home that might affect children in the classroom. Although pilot sites were often unsuccessful at providing the required amount of instructional time, the fact that children are present up to 9 hours a day in community-based centers compared to 6.5 hours in the public schools means there are opportunities to restructure the schedule to increase instruction. Community-based preschools also tended to do a better job of meeting families' childcare needs, since they provide year-round care. Finally, the family-style meals provided at many community-based centers offer children opportunities to participate in conversations and build oral language skills that are generally not available in the public schools.

Policy implications

Although this study has a small sample size, no control group, and was located in a single metropolitan area, we do find some useful directions for both future research and further program expansion efforts. First, the literature currently offers little concrete guidance about the trade-offs associated with different types of prekindergarten sites. Second, the concerns about having a two-tiered system with disparate levels of resources are borne out by our findings, as, for example, the community-based day care centers often had positions unfilled for many months. Third, it appears that instructional quality gains can be undermined by a lack of structural supports, so thought must go into making sure sites have what is needed to successfully carry out a program. Fourth, mixed-age classrooms need to be implemented thoughtfully; while approaches such as Montessori have an intentional theory about why classrooms are mixed-age, other programs are mixing ages primarily for financial reasons, and in ways that can negatively affect the learning environment. Finally, the large number of issues that have arisen in this small study underlines the wisdom of undertaking pilots prior to large-scale implementation. As Boston continues to scale up their prekindergarten program into community-based programs, they will be able to make changes in response to our findings; for example, a new rule has already been implemented to strictly limit the proportion of three-year-olds in a participating preschool classroom.

The two major policy questions remaining are: how to move programs into smarter curriculum and professional development choices; and how to capitalize on the strengths of community-based organizations and avoid the pitfalls.■

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[1]National Institute for Early Education Research *State of Preschool Yearbook, 2014*.

[2]See, for example, T. Grindal, "The Effects of Preschool Setting on Young Children's Cognitive Skills, Social Behavior and Approaches to Learning: A Propensity Score Analysis," Doctoral Dissertation, Harvard Graduate School of Education, 2011.

[3]D. Bellm, A. Burton, M. Whitebook, L. Broatch and M. P. Young, "Inside the Pre-K Classroom: A Study of Staffing and Stability in State-Funded Prekindergarten Programs," Washington, DC: Center for the Child Care Workforce, 2002.

[4]C. Weiland and H. Yoshikawa, "Impacts of a Prekindergarten Program on Children's Mathematics, Language, Literacy, Executive Function, and Emotional Skills," *Child Development* 84, No. 6 (November/December 2013): 2112–2130.

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