PreK Research Project: Final Report Executive Summary

Funded by the U.S. Department of Health and Human Services
Office of Planning, Research and Evaluation
Grant Number: 90YE101

Diane Schilder, Ed.D.
Stephanie Curenton, Ph.D.
Stephanie Kimura, Ed.M.
Jessica Young, Ph.D.
Louisa Anastasopoulos, M.P.P.
Stacy Erhlich, Ph.D.
Candy Miller, Ed.M.

Suggested Citation:
Schilder, D. Curenton, S., Kimura, S., Young, J., Anastasopoulos, L, Ehrlich, S., & Miller, C. 2011. PreK Research Project, Final Report Executive Summary. Waltham, Massachusetts: Education Development Center, Inc.

This report was developed by the PreK Project to learn if changes in state-funded universal preK are positively or negatively related to the supply of child care for low-income working families. EDC worked in partnership with the Ohio Department of Job & Family Services, the Ohio Department of Education, the New York State Office of Child Care and the New York State Department of Education. These state agencies provided the research team with data. EDC researchers regularly provided research updates to key stakeholders in both states.

The PreK Project is a project of the Learning and Teaching Division (LTD) of Education Development Center, Inc.. LTD works in partnership with government agencies, foundations, districts, and community programs to expand opportunities for children, adolescents, and adults—at home, at school, and at work—and to improve the institutions that serve them.

The research activities conducted by the PreK Project have been funded through a grant from the U.S. Department of Health and Human Services, Office of Program, Research & Evaluation (Grant Number: 90YE0101). Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the funders.

If you would like the full report or if you have questions about the content, contact Diane Schilder at dschilder@edc.org.

EXECUTIVE SUMMARY

To address questions about the relationship between preK expansion and the supply and quality of child care available to low-income families, researchers at Education Development Center, Inc. (EDC), with colleagues at Rutgers University, engaged in a four-year, mixed-methods study designed to examine the relationship between state-funded preK expansion (and contraction) and the quality and supply of child care.

The research was divided into three distinct areas of inquiry. In two different states (New York and Ohio), we first examined the policy context to learn about the nature of the preK programs and the factors that key stakeholders have experienced that they believe affect how changes in preK influence child care quality and supply. Secondly, we collected survey data and existing administrative data from county resource and referral agencies and from child care centers that both were and were not participating in state preK programs to explore the degree to which child care center participation in state-funded preK programs was related to the quality of child care quality, for better or worse. Thirdly, we analyzed survey and administrative data to determine the relationship between changes in preK funding and enrollment and the supply of child care. The broad research questions we addressed were as follows:

1. What state policies, regulations and characteristics of administration regarding preK have the potential to influence child care quality and access for low-income working families?
2. What is the relationship between child care center participation in state-funded preK and characteristics and quality of center-based child care?
3. What is the relationship between changes in preK funding and enrollment and the supply of child care?

Methods in Brief

The research team collected qualitative data to address the first question about state preK policies, regulations and characteristics in New York and Ohio that had the potential to influence child care quality and supply. We interviewed 31 preK, child care, and early education experts and stakeholders, reviewed documents including laws and regulations from each state, and

analyzed data collected by the National Institutes for Early Education Research. We analyzed the data employing an axial coding schema to code for key themes.

To address questions about quality, we focused on child care centers in two counties within each of our target states. In Ohio, we collected data from a random sample of 352 child care centers in Cuyahoga and Franklin counties. In New York, we collected data from all of the 90 child care centers (the universe of centers) in Albany and Niagara counties. We surveyed the center directors in the spring of 2008 (wave 1) and the spring of 2009 (wave 2) and matched the survey data with administrative data provided by the county resource and referral agencies and from the U.S. Census. Given the exploratory nature of our study, we focused on structural indicators of quality that child care center directors could report through a telephone survey and features that were available through administrative data. We compared the characteristics of the centers that were participating in the state-funded preK programs with the characteristics of the non-participating centers and also compared the structural indicators of quality. We analyzed the data using descriptive and inferential statistical analyses including independent samples t-tests, Analysis of Variance (ANOVA), and Ordinary Least Squares (OLS) regression analysis.

To address questions about the relation between changes in preK funding and enrollment and child care supply, we re-analyzed the survey data we had collected in 2008 and 2009 and analyzed administrative data provided by each state's Department of Education, child care agency, and from county resource and referral agencies. In Ohio, we analyzed data from the 2002-03 academic year through the 2009-2010 academic year, focusing on the two target counties of Cuyahoga and Franklin. We performed independent samples t-tests to analyze differences between child care centers that were participating in state-funded preK and comparison centers. We performed Hierarchical Linear Modeling to analyze growth in child care supply (both center-based and family child care) as well as enrollment over time. In New York we analyzed data from all of the counties in the state and focused the analysis on the period of time in which the state had increased funding for preK—from 2007 through 2009.

Policy and Context Findings

When this research was first conceptualized, preK was expanding rapidly and states were enthusiastic about increasing funding. Ohio and New York both devoted substantial funds to state-funded preK through 2008. However, as each state's budget was affected by the recession,

Ohio reduced state-funded preK for the 2009-2010 academic year, thereby eliminating one large preK program and New York's planned increases did not go into effect.

The stakeholders we spoke to reported that the **fluctuations in preK funding** affected the quality and supply of child care. In Ohio and New York, directors of child care centers that offered state funded preK used these funds to enhance the quality of services. The directors were able to use these resources for teacher professional development, curriculum enhancements, and educational materials and supplies.

Beyond state regulations and policies, **district and county differences** also influenced child care center supply and quality. In New York, state preK funds are granted to school districts. In turn, districts can contract with child care providers and other community-based organizations to offer preK services. The percent of preK services offered through non-school based settings varied substantially across and within counties and shifted over time. While some districts focused on teacher professional development, others focused on curriculum enhancements, and still others focused on meeting the needs of children in families whose primary language is not English. In New York, school-based personnel reported that the timing of the funding award notice, the availability of school-based classroom space, existing relationships with directors of child care and other early education programs, and fluctuations in school enrollment influenced decisions about the number of preK classrooms to offer through school-based versus community based programs.

In Ohio, the largest preK program in existence through July 2009—called the Early Learning Initiative—supported full-day, full-year preK through consortia of early care and education providers. Through a competitive grant process the state awarded a lead agency funds and the lead agency determined the number and type of organizations that would offer preK services. The second largest state funded preK program supported school-based preK services. Stakeholders reported that local interpretation of state laws and regulations has led to differences in preK services across counties and districts.

Child care and district based preK providers reported that **state child care subsidy polices** in both states influenced how each state-funded preK program affected the quality and supply of child care. For example, child care centers in New York City experienced decreases in overall funds available to provide early education services when the City changed its policy that had allowed programs to combine subsidy and preK funds to offer quality services. Instead, the

City reduced the overall funding by subtracting the preK funds from the subsidy dollars programs could receive. Child care directors from Ohio who had offered preK through 2008 reported that the combination of the reduction in preK funds along with **reductions in state child care subsidy reimbursements** that occurred in late 2009 resulted in increases in vacancy rates and reductions in overall funding to centers. This in turn led to elimination of professional development opportunities for teachers, lay-offs of more educated teachers whose wages were higher than less educated workers, and closing of classrooms.

PreK and Child Care Center Characteristics and Quality Findings

Child care centers offering state-funded preK were significantly more likely than comparison centers to be located in high-poverty neighborhoods, to serve significantly more children from low-income families, to serve more racially diverse populations, and to serve children attending care full-time. These findings quell the concern, expressed by some early education experts, that as states expanded preK fewer early care and education opportunities would be available to children from low-income families.

Similarly, we explored whether preK centers served children from families whose primary language was not English. Previous research had suggested that center-based care served fewer Hispanic children and children from families whose primary language is not English. We found that across both waves and in both states preK centers were as likely as centers not offering preK to serve children whose families did not speak English. Moreover, in Ohio preK centers served higher percentages Hispanic children as non preK centers and in New York preK centers served similar percentages of Hispanic children as comparison centers.

In both states and across both waves of data collection, children attending preK centers were more racially and ethnically diverse and were more likely to come from low-income families than children attending comparison centers. In both waves and in both states, PreK centers served more diverse populations of students. In Ohio, preK centers served higher percentages of African American, Hispanic, and multiracial children and lower percentages of Caucasian children than comparison centers in both waves. Descriptive statistical analysis revealed apparent differences in New York. PreK centers served significantly higher percentages of African American children in wave 1, but in wave 2 differences were not significant. PreK centers served significantly fewer Caucasian children, but, again, differences were not significant in wave 2. And in wave 1 preK

centers served significantly fewer Asian children than comparison centers; and they served fewer multiracial children, however, these differences were not reported in wave 2.

The characteristics of the preK services offered at child care centers appeared to be based on some of each state's preK and child care laws and regulations. In Ohio the ELI program offered as many as 10 hours per day, 5 days per week, year-round. By contrast, the UPK program in New York offered services for between 2.5 and 5 hours per day, 5 days per week during the school year. We had hypothesized that the hours per day, days per week, and weeks per year of children's preK attendance would be related to each state's preK policies. The number of hours per day that children received preK services differed across states: in Ohio, children received preK services for approximately 8 hours across both waves, whereas in New York children attended about 5 hours per day. Our analysis revealed that in both states, the average number of days per week children received preK services was approximately 5.

Our hypothesis related to full-time attendance at preK centers was accurate. We found that in Ohio, toddlers and preschoolers attending preK centers were more likely to attend full-time than children at comparison centers, although similar percentages of infants attended preK centers full-time as those attending comparison centers. Differences for toddlers and preschoolers were significant across both waves. In New York, despite the small sample size, we found that both toddlers and preschoolers were more likely to attend preK centers full-time than those in attendance at comparison centers.

Selected Structural Indicators of Quality

When compared to child care centers that were not offering preK, we found that preK centers were significantly different from comparison centers on a number of structural indicators of quality. Our sample size in Ohio was substantially larger than the sample from New York because the counties in Ohio were substantially larger. We found that preK centers in Ohio were more likely than comparison centers to report significant differences in structural indicators of quality. In New York, preK centers reported differences in quality but differences were not consistently significant—perhaps because of the smaller sample size. Below we highlight key differences in quality:

- Health and developmental screenings. PreK centers in Ohio were significantly more likely to refer children to free health and development screenings, such as vision, hearing,

and developmental delay screenings. In New York, nearly all of the surveyed centers provided referrals to children in both waves; preK centers were no more likely to offer health and developmental screenings and referrals.

- Standard curriculum. PreK centers were more likely to use a standard curriculum than comparison centers across both waves in both states.
- Accreditation status. In Ohio, preK centers were not more likely to be accredited by the National Association for the Education of Young Children (NAEYC) than comparisons, but they were more likely to report seeking accreditation. In New York, descriptive analyses revealed that higher percentages of preK centers in our sample were accredited but similar percentages of centers were seeking accreditation.
- Salaries. In both Ohio and New York teachers at preK centers were significantly more likely than teachers at comparison centers to earn more than $15,000 per year. In Ohio teachers at preK centers with only a high school degree were as likely as similarly educated teachers at comparison centers to earn over $15,000 per year. Teachers with more education than a high school degree working at preK centers were significantly more likely than their similarly educated counterparts at comparison centers to earn over $15,000 per year. In New York, the sample size was too small to enable analysis of salary based on teachers' level of education but significantly more teachers overall at preK centers earned over $15,000 compared with teachers at comparison centers.
- Credentials. In Ohio, significantly more preschool teachers had a CDA (Child Development Associate credential) in preK centers than comparison centers in wave 2, but differences in wave 1 were only nearly significant. Yet, teachers at comparison centers were actually more likely to be certified in wave 2. In New York, significantly more preschool teachers at preK centers were certified in wave 1 but the differences were not significant in wave 2. Differences in percentages of preschool teachers with a CDA were not significant in wave 1 but were significant ($p=.05$) in wave 2.
- Education of Lead Teachers. In Ohio across both waves, preschool teachers at comparison centers were significantly more likely to have a bachelor's degree than preschool teachers at preK centers. In New York, none of the differences were statistically significant across either wave of data collection.

- Teacher Training. Significantly higher percentages of teachers at preK centers participated in specific types of teacher training when compared with the comparison centers in both states and across both waves of data collection. In Ohio across both waves, significantly higher percentages of teachers attended child development training in wave 1; wave 2 differences were not significant. Significantly higher percentages of teachers attended literacy training in both waves. Significantly higher percentages attended CPR; wave 2 differences were not significant. Significantly higher percentages attended CDA training across both waves. Significantly higher percentages attended workshops in wave 1; but wave 2 differences were not significant. No differences were reported in the percentage of teachers attending college in wave 1; but in wave 2, significantly more teachers at preK centers attended college. In New York, significant differences were reported in the percentage of lead teachers who attended Literacy Training in wave 1; and nearly significant differences were reported in wave 2. Significant differences were reported in the percentage of lead teachers who attended CPR in wave 1; but differences were not significant for wave 2. And nearly significant differences were reported in the percentage of lead teachers who attended distance training in wave 2, with higher percentages of comparison teachers attending distance training.
- Participation in the U.S. Department of Agriculture Food and Nutrition Program. Previous studies have shown that participation in the U.S. Department of Agriculture Food and Nutrition is one asset that, combined with other structural variables of quality, is predictive of observed quality. We analyzed data on center participation in this program and found that preK centers in Ohio were more likely to participate in the program than comparison centers and New York preK centers were more likely to participate in the second wave of data collection. In wave 1 in Ohio, 80% of preK programs and 60% of comparison centers participated in the USDA Food and Nutrition Program. In wave 2, 100% of preK and comparison centers in Ohio participated. In the New York sample, 70% of preK programs participated in USDA Food and Nutrition Program in wave 1 and 60% in wave 2, compared to 70% of comparison programs in wave 1 and 30% of comparison programs in wave 2.

- Assets. We developed a composite of assets that other researchers had shown to be correlated with observed quality. PreK centers in Ohio reported significantly more assets than comparison centers in Ohio across both waves ($p<.001$). In New York descriptive statistical analysis revealed higher assets across both waves, but inferential analysis revealed the differences were statistically significant only for wave 1 ($p=.005$).

PreK and the Supply of Child Care Findings

We rejected many of the hypotheses regarding the negative associations between preK expansion and child care supply. Our correlational findings lead us to important considerations for future research on the relationship between changes in preK and child care supply. We summarize the key findings below.

- Non-School Based preK Enrollment and Child Care Center Supply in New York. We found a strong positive relationship between New York's preK enrollment in non-school based settings and child care capacity. We examined the associations between the numbers of children attending preK in school-based versus non-school based settings (as well as the funding for these students). We found a very strong relationship between preK enrollment at non-school-based settings and child care center capacity. This is consistent with our hypothesis that as preK funding and enrollment at community-based organizations increases, child care center capacity increases.
- Family child care capacity in New York. We found a positive relationship between New York's preK funding and enrollment and family child care capacity. While the relationship was significant, it was not as strong as the relationship between preK funding and child care center capacity. This is consistent with our hypothesis since family child care providers can offer preK but the number is substantially lower than the number of centers offering preK.
- School-based preK and child care supply in New York. We found a positive association between dollars spent on school-based preK and child care center capacity. We found no association between school-based preK funding and family child care capacity. This finding was in contrast to our hypothesis and anecdotes from the field that expansion of school-based preK is associated with decreased child care centers closing and a corresponding decrease in child care capacity.

- Child Care Center Supply in Ohio. We found a significant positive relationship between Ohio's preK funding and child care capacity in the years 2002-03 academic years and the 2009-10 academic years. We also examined the period before and after preK funding increases. We found that child care center capacity was significantly higher in the period of funding increases than in the baseline years. Our descriptive analysis revealed that between 2005 and 2009, Cuyahoga County (a county with universal preK [UPK]) experienced an increase in child care center capacity. In contrast, the number in Franklin County (comparison county) remained relatively flat.
- Care for children of differing ages in Ohio. We rejected our hypothesis that preK expansion would be negatively associated with capacity of infant and toddler center-based care. Instead, we found a significant positive relationship between infant, toddler, and preschool capacity and state preK funding.
- Care in high-poverty neighborhoods. We found no significant difference in child care center capacity over time based on location. After funding declines, there is no significant difference in capacity between pre-K and comparison centers.
- Family Child Care. Between 2005 and 2009, Cuyahoga County experienced a decrease in the number of family child care providers. By contrast, in Franklin County the number decreased slightly between 2005 and 2007 but remained relatively stable between 2007 and 2009. Between 2005 and 2009, Cuyahoga County experienced increases in the proportion of family child care providers who were certified. By contrast, in Franklin County the proportion of family child care providers who were certified remained relatively stable. The proportion of certified providers in Cuyahoga County remained flat prior to UPK but increased dramatically after implementation of UPK. The proportion of certified providers increased steadily between and 2009.

Discussion

It is important that these descriptive correlational findings be viewed with caution. Our correlational analysis revealed that preK expansion does not appear to be related to reductions in child care capacity for preschoolers, nor does it appear to be negatively related to capacity of

infant or toddler center-based care. As well, preK expansion does not appear to be negatively related to child care capacity available to low-income families. Finally, declines in preK funding alone do not appear to be related to an immediate decline in child care capacity.

These findings raise a number of questions: Is there a lag in declines in preK funding and child care center capacity? Within centers, is there a reconfiguration of capacity as preK funding increases? Do increases in preK funding—which effectively offer families free care for a portion of the day—lead to increases in parents' workforce participation, ultimately leading to an increased demand for care of younger children?

In recent years a number of important studies have examined continuity of care for particular target groups of children or using specific funding streams. Questions have been raised about how programs interact to impact the overall supply of early care and education (Gomby et al., 2004; Mitchell and Stoney 2006; Ewen and Matthews 2007; Ewen 2009; Mitchell and Stoney 2009; Kreader 2011; Ridley and Ganzglass 2011; Tvedt 2011). Our study leads us to consider important methodological issues for future research on the supply of child care. Our understanding of factors that influence the supply of early care and education could benefit from future studies that go beyond research on a singles auspice of care—such as child care centers, or one specific funding stream, such as preK funds and that examine the dynamic nature and interactions among policies and funding. Goodson and colleagues have recently suggested that employing an epidemiological approach in which all providers are mapped and all assets are considered could benefit the field. We recommend that future research focus on addressing these important questions.