ENCYCLOPEDIA on Early Childhood Development

Early Childhood Education in Public Schools: Evidence from New Jersey's Universal Pre-K

W. Steven Barnett, PhD

National Institute for Early Education Research, Rutgers—the State University of New Jersey, USA

February 2025

Introduction

Early care and education (ECE) is a service with public as well as private benefits. Not surprisingly, ECE for children ages three to five is provided and paid for privately and publicly. The mix of public and private involvement has varied over time as well as between and within countries. As policymakers consider how to expand public support for ECE in other countries, including the United States and Canada, the role of public education is a key consideration.

Subject

Public education plays a large and growing role in ECE, raising important questions about the consequences for ECE and what policy options might best support early learning and development.

Problems

The provision of ECE through public education brings risks and opportunities. Some in the field have had longstanding concerns about how schools may standardize and "academize" ECE. Those with concerns that public education chronically underperforms in K-12 raise similar questions regarding ECE. Another perennial concern is that public provision "crowds out" private expenditure and private providers with the potential to reduce the supply of infant-toddler care. At the same time, public education presents opportunities to address issues of high costs to families, low quality in private ECE and the related problems of low qualifications and compensation for the workforce, and fade-out that may be due to insufficient coverage and lack of alignment of curriculum content into the early grades.

Research Context

Following landmark state Supreme Court rulings in the *Abbott v Burke* school finance case from 1998 to 2002, high-quality universal ECE was offered to all children in 31 high-poverty communities at ages 3 and 4 as part of a systemic reform of public education.[1] The state fully funded the ECE program. All funds went to the 31 local education agencies (LEAs) directed to provide services through a combination of public schools and private ECE providers (for-profit, non-profit, Head Start), with the LEA responsible for quality in all.

The Court and state regulations specified policies to support quality that included a four-year college degree and a specialized teaching license in ECE for teachers, a maximum class size of 15 with a teacher and assistant, a full 6-hour school day, developmentally appropriate practice with a single approved curriculum in each LEA; adequate facilities; and transportation, health, and other related services as needed. The state education agency developed aligned standards for learning and teaching, assessments of practice and child development, and professional development that together comprised a system for continuous improvement at classroom, building, LEA, and state levels. Districts supported quality equally in all settings, and all teachers were required to receive comparable compensation.[2]

The evaluation included annual classroom quality assessments, studies of initial impacts, and a longitudinal study of child outcomes with 1070 children who entered kindergarten in the 15 largest districts in the fall of 2005, with 765 followed through grade 6 and 653 through to grade 10.[3]

Key Research Questions

1. What is known about the effects of preschool education offered through public schools on the ECE sector as a whole?
2. What was the impact of ECE expansion through the public schools on ECE quality?
3. What were the effects of the ECE program on student learning and school success?

Recent Research Results

The Pre-K program brought a rapid increase in enrolment by expanding the number of seats in public schools as well as by partnering with private providers and Head Start programs willing to meet the new state standards. The initiative also impacted diversity within the teaching profession. Public schools predominantly employed trained teachers who were mostly white, while private preschools often hired radicalized educators without degrees. With the new mandate requiring all ECE teachers to hold degrees within five years, an estimated 90% of teachers working in contracted private programs complied, leading to a more diverse, majority non-white qualified teaching population.[4]

The impact of expanding ECE through public education was assessed by a 2007 survey of 98 directors of private providers and Head Start contracted for Abbott ECE. Respondents were “overwhelmingly positive” about the program, with all citing positive benefits to their centres. More than half reported increased teaching staff skills and stability from higher salaries and new educational opportunities. Almost as many reported that the more consistent and substantial funding increased stability and enabled them to improve the learning environment. About one-third reported that they were able to improve services for children and families.[5]

Independent assessment of quality (measured by the Early Childhood Environment Rating Scale-Revised, ECRQ-R) was used to monitor the Abbott program’s progress statewide annually. Quality rose steadily over the first eight years of the program from an average below 4, with most classrooms scoring poor to mediocre, to an average above 5, with most programs scoring good to excellent.[2]

Impacts on children’s learning and school performance at kindergarten entry were estimated using a regression-discontinuity design (RDD), and a longitudinal study estimated later impacts by comparing children from the same kindergarten classrooms who did not attend, attended for one year and attended for two years.[3,6,7] The RDD studies found moderate gains in language, math, and literacy. These are larger than the estimated impacts at kindergarten of one year in

the longitudinal study, suggesting the longitudinal study underestimates effects. Nevertheless, the longitudinal study found gains in literacy and language arts, mathematics, and science through the secondary grades. Effect sizes for one year of Abbott pre-K averaged around .10 SD for math and slightly higher for language and literacy, and science. Effect sizes for two years of Abbott pre-K averaged .30 to .40 SD for math and .30 SD for language and literacy. The program was estimated to reduce grade retention by 15 percentage points.

Research Gaps

Future research on Abbott Pre-K should investigate effects on social and emotional development, educational attainment and earnings and whether the recent expansion in many other LEAs produced similar results. As Abbott Pre-K was accompanied by a broader court-ordered reform of K-12, persistent impacts might depend on reforms that created continuity. Further generalization would be supported by testing the model outside New Jersey in other systems of public education.

Conclusions

The Abbott Pre-K program results suggest designing programs with multiple features predicting stronger persistent effects compared to typical large-scale public programs. These include universal eligibility, duration of two years (or more), high quality and standards, curriculum continuity, funding adequacy, and a strong continuous improvement system. Abbott pre-K is the closest replication at scale of the highly intensive and effective Perry Preschool program. Yet, the Abbott model is also feasible. Although more expensive than many ECE programs, it is not more expensive than public education generally.[8] Approaches that produce substantial long-term gains offer a much better return on investment than cheaper alternatives with minimal long-term benefits.[9]

Implications for Parents, Services and Policy

Few children, regardless of parental education and income, have access to programs of the quality provided by Abbott pre-K. Although the cost problem could be solved by public subsidies, features of the Abbott program contributing to its success require a coherent, aligned system of high-quality universal pre-K as part of public education. A randomized trial designed to investigate this issue found that the persistence of pre-K effects increased with the percentage of children in elementary school classrooms who had attended the pre-K program.[10] The persistence

of gains through the early years also increases with instructional continuity from pre-K through the early grades.[11] Policies should support more than one year of quality ECE at age 4. Finally, it cannot be assumed that even the best-designed and funded ECE program will produce the desired outcomes for all children in every context. An essential component of successful ECE programs is a robust approach to continuous improvement and evaluation.

References

1. Kim R. Under the law : Expanding access to pre-K and the legacy of Abbott v. Burke. *Phi Delta Kappan*. 2021;103(2):64-65. doi:10.1177/00317217211013943
2. Barnett WS, Frede EC. Long-term effects of a system of high-quality universal preschool education in the United States. In: Blossfeld H-P, Kulic N, Skopek J, Triventi M, eds. *Childcare, early education and social inequality*. Cheltenham, UK: Edward Elgar; 2017:152-172.
3. Barnett WS, Jung K. Effects of New Jersey's Abbott preschool program on children's achievement, grade retention, and special education through tenth grade. *Early Childhood Research Quarterly*. 2021;56:248-259. doi:10.1016/j.ecresq.2021.04.001
4. Ryan S, Ackerman DJ. *Creating a qualified preschool teaching workforce part I: Getting qualified: A report on the efforts of preschool teachers in New Jersey's Abbott districts to improve their qualifications*. New Brunswick, NJ: National Institute for Early Education Research, Rutgers, The State University of New Jersey; March 3, 2004.
5. Whitebook M, Ryan S, Kipnis F, Sakai L. *Partnering for preschool: A study of center directors in New Jersey's mixed-delivery Abbott program.* Berkeley, CA: University of California, Center for the Study of Child Care Employment; 2008.
6. Wong VC, Cook TD, Barnett WS, Jung K. An effectiveness-based evaluation of five state pre-kindergarten programs. *Journal of Policy Analysis and Management*. 2008;27(1):122-154. doi:10.1002/pam.20310
7. Barnett WS, Jung K, Friedman-Krauss A, Frede EC, Nores M, Hustedt JT, Howes C, Daniel-Echols M. State prekindergarten effects on early learning at kindergarten entry: An analysis of eight state programs. *AERA open.* 2018;4(2):2332858418766291. doi:10.1177/2332858418766291

8. Friedman-Krauss AH., Barnett WS., Hodges KS. et al. *The state of preschool 2023: State preschool yearbook.* New Brunswick, NJ: National Institute for Early Education Research; 2024.
9. Ramon I, Chattopadhyay SK, Barnett WS, Hahn RA; Community Preventive Services Task Force. Early childhood education to promote health equity: a community guide economic review. *Journal of Public Health Management and Practice*. 2018;24(1):e8-e15. doi:10.1097/PHH.0000000000000557
10. List JA, Uchida H. Here today, gone tomorrow? Toward an understanding of fade-out in early childhood education programs. NBER Working Paper No. w33027. October 2024.
11. McCormick MP, MacDowell C, Weiland C, Hsueh J, Maier M, Pralica M, Maves S, Snow C, Sachs J. Instructional alignment is associated with PreK persistence: Evidence from the Boston Public Schools. *Early Childhood Research Quarterly.* 2024;67:89-100. doi:10.1016/j.ecresq.2023.11.008