



1. The Imperative for High-Quality Pre-K

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Executive Summary

This chapter summarizes the history of the development of public preschool in the United States and its current role in education reform. The chapter reviews research on preschool's effectiveness and research related to the many decisions that states need to make after deciding to invest in public preschool. Pros and cons of each decision are discussed, along with specific recommendations for state policymakers.

Since the publication of *A Nation at Risk*, extending school downward to include younger children has become the most expansive and deeply rooted strategy for improving achievement and reducing the achievement gap. The theory of change for public investment in preschool is that enrolling children in an educational program before they enter elementary school can help them develop the skills they need to succeed in kindergarten and can thus set children on a trajectory for school success.

Preschool programming can take many forms, which are explored in depth here, but with regard to student outcomes, the operative phrase is "high quality." Only programs that meet high quality standards have shown long-term effects. States have many policy levers to affect quality, including program licensing standards, teacher and administrator credentialing standards along with ongoing resources to support effective teaching, child learning standards and assessments, program quality monitoring systems, and curriculum guidance.

Policies related to preschool should not be considered in isolation. If teachers in the upper grades do not build on what children learned in preschool, the benefits will fade. States can help sustain benefits by making sure that learning standards, program standards, curriculum, assessments, and teacher credentialing are aligned across preschool and the early grades.

Preschool is not a panacea. It alone will not improve achievement scores and other important child outcomes or reduce that achievement gap. But of the many school improvement

initiatives this series discusses, preschool is among the most studied, and it may have the most potential to move the needle on improving student achievement.

- Preschool has become the norm in children’s educational experience, although controversies still exist about specific goals and how to provide it.
- Policymakers increasingly view preschool as a strategy for launching children on a positive trajectory for academic success and reducing the achievement gap related to economic circumstances that exists before children enter kindergarten.
- Research demonstrates long-term benefits of preschool only for high-quality programs, especially when followed by high-quality and coherent instruction in the early elementary grades.



PRESCHOOL CONTEXT

Since the publication of *A Nation at Risk*, efforts to improve student achievement have taken many forms.¹ Extending school downward to include younger children has become the most expansive and deeply rooted strategy. Nearly every state in the country has made significant investments in public preschool, and preschool has become the norm in children’s education experience.

Preschool is defined as an education program provided to three-to-five-year-olds during the two years before entering kindergarten. Traditionally, preschool has been an education-focused half-day program, which does not meet working parents’ childcare needs. To address this need, preschools are increasingly offering extended-day (“wraparound”) childcare.

Given that children are learning something all day, whether that is intentional or not, the distinction between childcare and preschool is blurry on a practical level. But the distinction has policy implications. Funding for childcare and preschool often comes from different sources, with different family eligibility requirements and standards. This chapter concerns programs (or those parts of programs) that intentionally focus on promoting children’s learning and development, not caretaking.

Unlike the K-12 system, in the United States preschool has no common governance structure, and administrative oversight rests with different levels of government. Children can attend a private, tuition-based preschool; a public preschool funded by the federal government (Head Start) or the state government (state preschool); a program funded by local resources (e.g., local taxes or philanthropy); or a preschool that involves funding from several sources.²

A commitment to educating children before school has its roots in the infant school, designed in the 1820s and 1830s by social reformers to offer free daycare and education emphasizing “moral habit” for the children of poor working parents. In many respects, this is the original “compensatory education” for young children, although it emphasized values and behavior, not preparing children for school success. Soon after infant schools were created for the poor, more affluent parents began sending their young children to private infant schools where the emphasis was on early enrichment and social skills rather than moral reform. But preschools as we currently know them were not widespread in the United States for either poor or more affluent children until the 1960s.³

At about the same time that infant schools were introduced in the United States, kindergarten was developed by German educator Friedrich Froebel. He believed that children should be in school from a young age, and the lessons he designed for children ages three through six emphasized music, nature, stories, and play. The first kindergartens in the United States were created by German immigrants in the mid-1800s. Over time, kindergarten for five-year-olds became a grade of schooling in the United States. In 1965, eighteen states funded public kindergarten. By 2000, all states funded some sort of kindergarten, most of them free to all children who met the age qualifications. Today nearly all (about 98 percent) children attend kindergarten prior to first grade, although kindergarten is not compulsory in most states.⁴ As kindergarten became viewed as “school,” preschool for three-to-four-year-olds (sometimes referred to as prekindergarten or pre-K) took its place as the education program for the year or two before school. Preschool has become the norm in the United States, and although private programs exist, preschool, like kindergarten, is increasingly supported with public funds. The theory of change for public investment in preschool is that an education program before children enter elementary school can help them develop the skills they need to succeed in kindergarten and can thus set them on a trajectory for school success. The next section offers a brief explanation and history of private and public preschools in the United States.

PRIVATE PRESCHOOL

In the decades prior to Head Start, children younger than five years of age were mostly in private and tuition-based preschool programs affiliated with universities or with religious or other community-based organizations. Now there are many community-based nonprofit programs as well as for-profit chains. Families that enroll their children in private preschool have, on average, higher incomes than families that enroll their children in public programs.

Although academic-focused private preschools exist, most focus primarily on social development and socialization—giving children an opportunity to learn how to get along in a setting with peers—as well as general cognitive development, including communication and problem-solving skills. Specific models, such as Montessori and Reggio Emilia, are prominent in the United States. As publicly funded preschools become more available, the proportion of children in community, tuition-based programs is declining.⁵

PUBLIC PRESCHOOL

Specific goals of public preschool vary across funding sources, states, and localities. Kindergarten readiness, however, is ubiquitous, signified by the widespread state adoption of kindergarten readiness tests for children. There is considerable research to support the belief that kindergarten readiness predicts success in school,⁶ which in turn predicts education attainment⁷ and accompanying benefits.⁸ Because some families cannot afford private programs, public funds are needed to make preschool accessible to all children.

Public preschool has had its critics. Some opposition comes from the more conservative view that the government should not be in the business of educating young children; that is parents' responsibility. A comment in 1971 by then president Richard Nixon sums up this argument: "For the Federal Government to plunge headlong financially into supporting child development would commit the vast moral authority of the National Government to the side of communal approaches to child rearing over against the family-centered approach."⁹ Some opposition has also come from skeptics about its effectiveness. A related concern is the isolation of low-income children in a program, especially given evidence that low-income children benefit from being in programs with more economically advantaged peers. Despite such objections, the federal government launched the first expansive public preschool, Head Start, in 1965; state and locally funded programs followed.

Head Start

Head Start was created in 1965 as part of then president Lyndon B. Johnson's war on poverty, and it is one of the only Office of Economic Opportunity programs to survive. It was launched with a clear and ambitious goal: to reverse the cycle of poverty. Head Start was considered compensatory education in the sense that the education program was compensating for inauspicious home and community environments associated with poverty.

The specific program reflects beliefs about the academic and life skills required to escape a life of poverty. Unlike most other publicly funded preschool programs, Head Start is a comprehensive program; in addition to promoting cognitive and social-emotional development, it is designed to promote children's physical and mental health with nutrition and social supports that affect their home environment. Health screenings and provisions for physical health (e.g., dental care) and parent involvement are key components. Head Start thus overlaps in approach with the whole-child reforms described by Maria D. Fitzpatrick in chapter 2 of this series.

Head Start has served an increasing number of children over its history, from fewer than two hundred thousand in the yearlong program in 1967 to over eight hundred fifty thousand in 2020. There has been ongoing tension between the desire to serve more children and at the same time increase quality, both of which add to the program's costs. Quality has been given considerable attention in the past couple of decades. The 2007 reauthorization of Head Start included a revision of the quality standards and a 40 percent set-aside for quality enhancement (used in part to increase teacher salaries). The reauthorization also required that by 2013 half of Head Start teachers have a BA degree and assistant teachers have at least a Child Development Associates credential.

Opposition specific to Head Start has been consistent but has come in different forms. Many conservatives opposed all of Johnson’s Great Society antipoverty programs. Critics concerned about parent choice have suggested that the money could be better spent by providing parents with vouchers to purchase their own childcare or education program for their children.¹⁰ There has also been opposition to the broad whole-child goals of Head Start by those who seek a narrower focus on academic skills. Among supporters of Head Start, the primary concern has been about effectiveness. Despite opposition, the program has survived and in fact grown with bipartisan support.

State and Local Preschool

During the 1980s, states began to develop preschool programs for students from low-income families. State-funded and locally funded preschool goals are typically more limited than Head Start, focusing primarily on kindergarten readiness. Few state preschool programs offer the health and social supports for children and families that Head Start offers.

A total of forty-four states, plus the District of Columbia, now provide at least some state funding for preschool programs, enrolling in 2021 about 29 percent of four-year-olds.¹¹ A number of cities have also used various sources of funding to increase access to preschool. For example, San Antonio, Texas, increased its sales taxes; San Francisco added a rental tax, and Seattle added a property tax. Funding levels vary substantially from state to state, from a low of \$420 (North Dakota) to a high of \$19,228 (Washington, DC) in 2021.¹²

There are several reasons for the growth in state and local preschool programs. First, preschool among middle-class four-year-olds was becoming the norm. Children in families that could not afford tuition-based preschool were therefore at a disadvantage when they entered kindergarten. Second, policymakers were increasingly aware of the large achievement gap related to economic circumstances that existed at kindergarten entry and persisted through school. It was clear that any effort to reduce the achievement gap needed to start early in children’s lives. Third, there were significant concerns about the inadequacy of public education and frustration from failed reform initiatives at the K-12 level. For example, disappointed by the results of \$40 million granted to reform the Philadelphia School System, the Board of the Pew Foundation turned to preschool education with the hope that it would be more amenable to change.¹³ Fourth, there was accumulating research evidence for the short- and long-term benefits of high-quality preschool, including programs implemented at a very large scale. And finally, neuroscientists were demonstrating the significant effects of children’s early experience on the architecture of the brain, making clear that early brain development served as the foundation for future learning and development. Although funding for state and local programs ebbs and flows, the general direction has been toward growth.

A Nation at Risk, published in 1983, played a significant role in the rise in states’ interest in early education. While the report initially stimulated reforms mostly at the high school level, findings at the time related to the benefits of preschool education amplified interest in early childhood education (ECE) as a strategy to improve education outcomes. Many national reports after the publication of *A Nation at Risk* make clear that promoting “school readiness”

became an important element in the school reform agenda. In 1987, the Council of Chief State School Officers included pre-K for low-income four-year-olds in its list of recommendations for improving high school graduation rates.¹⁴ In the six national goals for 2000, created at a national education summit in 1989 under then president George H. W. Bush, “All children will start school ready to learn” was listed first. The National Association of State Boards of Education recommended that elementary schools create early childhood (EC) units for children ages four to eight and develop relationships with community preschools to help coordinate the fragmented services.¹⁵

In the decade following, preschool for economically disadvantaged children was also frequently included in state school reform legislation. By 1989, thirty-one states either funded their own preschool program or contributed funds to increase access to Head Start. Nearly all of these state programs were instituted in the 1980s.¹⁶ The programs were typically administered by state departments of education and were located in school buildings. Some states funded preschool through separate grants, and some included preschool in their school funding formulas.¹⁷

Most of the publicly funded state preschool programs have targeted children from low-income families in a mixed-delivery system, which can include public schools, Head Start, private preschools, and family childcare homes. States vary in whether they offer a program for half or full school days, although the trend has been toward more full-day programs to meet working parents’ needs.

Some of the opposition to state preschool comes from within the ECE field. Programs for infants and toddlers that cannot avail themselves of preschool funding often take a financial hit when the older children move to a public preschool. The problem stems from reimbursement rates being too low for infant and toddler programs to survive with the low child-teacher ratios required. Programs manage financially by including preschool for older children in the mix, which allows higher child-teacher ratios overall. Also, in mixed-delivery programs, private or community-based programs are sometimes at a disadvantage because they lack the resources and the ability to pay teachers the salaries that public programs offer. As a consequence, some people working in community settings view public preschool as an unfair competitor.

Universal Preschool

Most publicly funded preschool programs target children in low-income families. But since the early 1990s, interest in universal programs available to all four-year-olds has increased. This movement was encouraged in part by research finding preschool benefits for nonpoor as well as economically disadvantaged children.¹⁸

Social programs that are universally available are also considered to be politically more robust than programs targeting the poor. A universal program extends preschool opportunities to the working poor—families that are economically fragile but with incomes just above the eligibility cutoff for programs targeting impoverished families—and it relieves middle-class

families of the cost of private programs. It thus develops a stronger constituency. Greenstein suggests furthermore that a program that serves not only the poor but also people significantly above the poverty line and the middle class may lessen the racial imagery of the program.¹⁹

One argument some advocates make for universal prekindergarten (UPK) concerns the value of mixed socioeconomic status (SES). Programs with low-income eligibility requirements isolate the poor. Research evidence shows, however, that children from low-income families make greater gains in programs with more affluent peers than in segregated programs.²⁰ De facto segregation will continue, but children from low-income families are not officially segregated where universal preschool is available.

Georgia (1995), New York (1998), New Jersey (in Abbott districts serving low-income students, 1998), and Oklahoma (1998) were pioneers in the universal preschool movement, committing to making publicly funded preschool open to all children whose parents chose to enroll. Currently, seventeen states have legislation committing the state to universal preschool. Despite claims of “universality,” however, most states that have legislation to support universal preschool do not serve all four-year-olds, partly because of inadequate funding and partly because of parent choice and staff and facilities shortages. In the 2019–20 school year (the last year not impacted by the COVID-19 pandemic), only four states and Washington, DC, had more than 70 percent of their four-year-olds enrolled in state preschool.²¹

The infrastructure for universal preschool programs varies considerably. For example, public preschool in Oklahoma operates through the public school system. In Georgia, the program has been set up with voucher-like subsidies; money from the state is given to parents who can choose from among private and public programs that have been certified by the government. In West Virginia, state funding for public preschool flows to both local education agencies (LEAs) and non-LEAs through County Offices of Education. Most states and cities that have passed legislation to expand preschool to all four-year-olds rely on a combination of funding sources, including federal Head Start and state preschool. The one exception is California, which has used state education funds to expand preschool to all four-year-olds by essentially adding a grade to elementary school (referred to as “transitional kindergarten”).

Objections specific to universal preschool focus mainly on public subsidies for middle-class and affluent families when, critics point out, they have shown they are willing to pay for preschool. Critics have also claimed that the state should not expand preschool education when so many of the country’s public schools are failing.²²

ISSUES AND CONTROVERSIES

Although not uncontested, preschool is deeply rooted in the education landscape; the debates are less about whether public resources should be used to support it than they are about which type of preschool the resources should support (targeted or universal, as

discussed above), where the preschool should reside (in public schools, community programs, or both), and how to ensure high quality. The latter two issues are discussed next.

COMMUNITY VERSUS SCHOOL-BASED PROGRAMS

Advocates of placing preschool in public schools argue that it is the most efficient approach to offering ECE at scale and that it contributes to alignment in curricula and teaching between preschool and the early elementary grades, which can help maintain the benefits of preschool over time. Alignment with kindergarten is difficult when children come from many different preschool contexts, and the public school they enter has no authority over the standards, expectations, curricula, and other policies at the preschool level. Another argument for public schools is that they have an infrastructure, including all the back-office supports (e.g., finance, facilities, human resources) needed. Finally, advocates point out that teachers in preschools that are part of public school systems are generally more educated and better paid and have easier access to special education supports.²³

But public school-based preschool has its critics. Private program providers complain that they are at a financial disadvantage, lacking the purchasing power of a school district. Another concern is that a direct link to K-12 schooling will result in a focus on academics that can divert attention from the more holistic set of goals that most experts in the field of ECE champion. Many critics expect school-based programs to “push down” from higher grades an emphasis on academics using structured, didactic instruction that is developmentally inappropriate for young children. They also worry that K-12 schools are less likely to communicate with and involve parents, a central principle of Head Start and many non-school-based programs. And there is evidence that public school-based programs often have higher child-to-teacher ratios than is recommended for young children.²⁴

For practical reasons, almost every state with a public preschool program uses a mixed-delivery approach, with some classrooms in public schools and others in community-based organizations (CBOs). A mixed-delivery system expands access by using a broad array of existing programs—including Head Start agencies, childcare centers, private schools, faith-based centers, charter schools, and family childcare homes—giving families choice and supporting small businesses. It also saves the state the cost of new facilities and allows it to take advantage of existing staff, enrollment, and organizational structures. Furthermore, including private and community providers increases political support for state programs. Another advantage of including CBOs is that teachers tend to be more diverse and likely to speak the native language of dual-language learners. A study in New York City found that CBOs also offered care for longer hours on average and were more likely to provide mental health services.²⁵

On the downside, depending on how it is organized, there are many challenges associated with coordinating preschool providers that operate in very different settings with different funding structures and often fewer resources. Also, in many states, childcare and preschool systems are overseen by the state’s human services agency, which can create a disconnect between the human services and the education aspects. It is a challenge to effectively braid

and distribute funding as well as maintain quality across a wide variety of settings with different administrative oversight.

Evidence also suggests differences in the quality of CBOs and public school-based preschools. Studies show that preschool teachers in public school settings are generally better educated and better paid.²⁶ A study of five large-scale, mixed-delivery preschool systems (Boston, New York City, Seattle, New Jersey, and West Virginia) showed differences in quality, despite explicit steps to improve equity in quality across settings.²⁷ All five systems implemented similar program standards in both public school and CBO programs. For example, all required lead teachers in both settings to have at least a BA degree, and New Jersey, Seattle, and Boston paid teachers the same in CBOs and public schools. (New York City did so in the years after the study was conducted.) Nevertheless, analyses by Weiland et al. (2022) reveal that children in CBOs, who were disproportionately children of color and children from low-income families, were taught by less educated teachers in all localities and showed lower student gains than their peers in public schools.²⁸ The authors point out, however, that differences in child gains by setting were smaller in New Jersey and Seattle, the two systems in which policies for CBOs and public schools were the most equitable. The Abbott program in New Jersey stands out for its significant efforts to ensure quality in community-based programs. The state requires frequent site visits from master teachers to coach staff, gives districts tools to conduct assessments, and employs university researchers to assess classroom quality and track children's learning.²⁹

To summarize, there are some practical reasons for mixed-delivery systems, but ensuring quality is more challenging than in a more centralized system such as public schools. If a mixed-delivery system is used, considerable attention needs to be given to supporting equity in quality, including pay equity for comparably educated teachers across settings.

DEFINING AND MEASURING QUALITY

There are three primary levers for ensuring quality: (1) state preschool program licensing standards, including teacher-to-child ratios and teacher credentialing requirements; (2) monitoring of programs that have been licensed; and (3) resources for improvement, such as teacher professional development. In many states, monitoring and improving are combined into what is referred to as a Quality Rating and Improvement System (QRIS). Programs are rated along particular dimensions and are typically offered opportunities to improve on those dimensions rated low. In some states, funding levels are based on a program's QRIS ratings. The National Association for the Education of Young Children (NAEYC) also offers accreditation to programs that meet its high standard, although few programs go through the arduous process to receive and retain NAEYC accreditation.

Two categories of quality are included in most state preschool program licensing standards and monitoring systems. The first involves "structural" indices that can be relatively easily regulated and measured, such as requiring particular teaching credentials, teacher-to-child ratios and group size, and aspects of the physical environment considered important for

safety. The second involves “process” variables having to do with the learning environment and the interactions between teachers and children and among children.

There is fair agreement on what constitutes quality regarding teachers’ general interactions with children. Research evidence indicates the value of (1) an overall classroom climate or tone that is emotionally warm, accepting, and supportive; (2) positive, proactive, and consistent classroom management practices that include more affirmation and warmth and fewer disapproving and behavioral controls; (3) educators’ positive, non-conflictual relationships with individual children; and (4) explicit modeling, teaching, and scaffolding of social-emotional skills.^{30,31,32} There is emerging agreement as well that effective teachers need to engage in bias-free and culturally responsive teaching.³³

Defining and measuring quality related to instruction is difficult and controversial for all education programs. But unlike K-12 education, where there is consensus on academic achievement as the primary goal, the goal of preschool is disputed. At the heart of the controversy is how much academic achievement should be a goal and, if it is, what teaching strategies are appropriate to attain it.

What Should Preschoolers Learn?

Most EC educators believe that preschool should attend to multiple domains of development—that is, the whole child. Proponents of focusing on the whole child argue that even learning basic academic skills requires self-confidence and self-regulation skills, such as paying attention, as well as the social skills required to avoid wasting learning time engaged in conflict with peers or the teacher.³⁴

On the other hand, the accountability movement, instantiated in No Child Left Behind legislation, created pressure for preschools to emphasize academic skills. School districts became focused on raising scores on standardized achievement tests, and many believed that starting early would help them achieve that goal. Current evidence that young children are able to develop foundational literacy and math skills supports advocates’ attention to academic skills,³⁵ as does evidence that early literacy and math skills when children enter kindergarten are highly predictive of reading and math achievement in school.³⁶ Although Head Start has from the beginning been committed to supporting the development of the whole child, there have been efforts to focus it more on academic preparation. The George W. Bush administration, for example, proposed shifting Head Start from a comprehensive intervention to a program that focused on language and literacy.³⁷

The debate rests to some degree on a false dichotomy. A focus on academic skills in math, literacy, science, or any other domain does not preclude attention to other dimensions of children’s development. Nonacademic dimensions of the whole child, such as self-regulation and social skills, can be developed even in the context of academic instruction. For example, math activities can involve cooperative learning opportunities that are designed to help children develop such social skills as listening, taking turns, and negotiating. Moreover, EC educators are less critical of the goal of academic achievement if other important dimensions of

development are also stressed and if literacy and math are taught in what EC experts consider developmentally appropriate ways, explained next.

How Should Preschoolers Be Taught?

The debate about *how* preschoolers should be taught is characterized variably as play based or child centered versus teacher directed. In the extreme of play-based/child-centered programs, children choose and initiate most activities, actively exploring and manipulating concrete materials. The teacher may build on children’s activities (“How many blocks do you have in your tower?”), but they are responding to child-initiated activity. In the extreme of teacher-directed instruction, teachers lead children through rote learning exercises, such as counting and identifying letters, and children work individually on tasks that often involve worksheets. People endorsing a more child-centered approach worry about the effects of structured, teacher-directed instruction on children’s motivation and enjoyment of learning. People endorsing a more teacher-directed approach argue that children do not learn foundational academic skills through self-initiated play.

Research suggests that child-initiated play is important for children to develop general problem-solving and social skills, but the development of subject-matter skills requires more intentional teacher guidance. Research suggests that whole-child, child-centered, play-based curricula fail to produce gains in either math or literacy.³⁸ In contrast, several meta-analyses of research have shown that math curricula involving teacher-led activities can have strong effects on math learning and that literacy curricula are modestly successful in boosting literacy achievement.^{39,40,41,42}

Academically focused instruction does not necessarily mean rote learning and worksheets. Literacy, math, and science can be taught to young children in a developmentally appropriate, engaging way. Research suggests that literacy and math are most effectively taught through intentional but playful activities in which the teacher leads children through a learning activity, but children have some discretion in how they achieve the goal of the activity.^{43,44,45} In addition to the benefits of teacher-guided, playful activities, research supports the value of a language-rich environment in which teachers listen to and engage children in conversation and small-group instruction, which is well designed to engage children’s interest in the context of a positive emotional climate.⁴⁶

MEASURING AND SUPPORTING QUALITY

The research is somewhat mixed on how well-structural dimensions of quality, such as teacher-to-child ratios⁴⁷ and teacher credentials,⁴⁸ predict child outcomes and does not pinpoint specific regulations, such as determining whether a 1:12 or 1:10 teacher-to-child ratio is ideal. The evidence is also mixed on the associations between teacher credentials and quality measured by either classroom observations or child outcomes.⁴⁹ There is some evidence that the amount of specific training in child development and ECE may matter more than the level of the credential.⁵⁰ And there is compelling evidence that professional development (PD) can have an impact on the quality of children’s experiences. But not all PD programs are created

equal. The evidence on PD suggests the value of coaches working directly with teachers, focusing on content knowledge and effective pedagogy within an identified domain. Brief workshops are ineffective in promoting lasting changes in instruction.^{51,52,53}

Classroom observations are needed to assess process quality. Those that are typically used provide valid information on general teacher-child interaction, but they do not assess the quality of literacy or math teaching. The field needs to develop assessment instruments that states can use to measure instructional quality in preschools.

CHALLENGES TO QUALITY

The most significant obstacle to quality is cost, and the critical variable is the teacher. Although research does not provide strong guidance on exactly what kind of preparation is ideal, there is good evidence that preparation is important, as is professional development. But both come with costs. Increasing the rigor of training can improve quality, but it will exacerbate the teacher supply problem without commensurate increases in salary. Professional development also requires time on the part of the teachers and funding for the people who do the PD (and ideally for the participants).

Teacher pay affects quality indirectly through its effect on the economic stress teachers experience, their classroom behavior, and ultimately, turnover.⁵⁴ Because preschool teaching is typically relatively low paid, turnover is high. Turnover undermines quality because programs that invest in professional development do not get much of a return on their investment, and high turnover causes children to experience instability, which undermines the quality of the relationships they can develop with their teachers.

The field is also challenged by inequity in quality for low-income and more affluent students. A study of 1,610 preschool sites in New York City found classroom quality to be lower in sites located in poor neighborhoods and in centers serving higher percentages of Black and Latino children.⁵⁵ Even in Georgia, a national leader in universal preschool, state preschool classrooms in low-income and high-minority communities were rated significantly lower in classroom quality.⁵⁶

IMPACT

Public preschool is costly, and policymakers understandably want evidence that it helps them achieve the goal of improving education outcomes. In brief, the findings indicate that preschool can but does not necessarily have both short- and long-term effects for children that also yield economic and social benefits.

The most notable long-term impact study, which has had a significant (perhaps outsized) impact on ECE policy, is the Perry Preschool Project. The program provided very high-quality preschool education to 123 three- and four-year-old African American children.

Findings based on participants and the control group long into adulthood show many long-term benefits of the program, including higher high school graduation rates, higher earnings, and lower arrest rates. Cost-benefit analyses suggest a substantial return, which economist James Heckman concluded is about 8 to 1.⁵⁷ A substantial portion of the return comes from reduced incarcerations. The findings from this one small study have been used to convince many policymakers of the value of investing in preschool. The public programs that have been developed since, however, are not near the level of quality of Perry Preschool, which employed primarily teachers with graduate degrees in ECE and which offered a staff-to-child ratio of 1:6, teacher weekly visits to children’s homes, and parent education. It cost \$21,800 per child in 2017 dollars, compared to the \$5,867 spent per child on average in state preschool programs.⁵⁸

Results of the many studies on the impact of preschool cannot be reviewed here. Meta-analyses, however, indicate meaningful positive effects overall on school academic readiness, reductions in grade retention, and special education placement as well as small effects on social-emotional development, especially when this is a specific goal of the program.⁵⁹

Many studies, including a large-scale study of Head Start,⁶⁰ show an initial benefit of preschool, but the benefit fades over the first few years of elementary school. One study in Tennessee found that the control group had higher achievement scores in fourth grade than the children who had been randomly assigned to state preschool.⁶¹ These findings raised questions about the quality of the Tennessee state preschool program and what early educational experiences the control group had. But along with the many studies that have documented the fading of preschool benefits in elementary school, the Tennessee study makes clear that simply implementing a large-scale preschool program does not guarantee the desired effects on children.

There are several possible explanations for the fade-out effect. One explanation, supported by research, is that kindergarten teachers often repeat material that children had already learned in preschool,^{62,63} allowing children who did not have preschool to catch up with those who did. Another is that teachers in the early grades do not differentiate instruction for children with varying skill levels, which impedes children’s opportunities to continue to exhibit growth.⁶⁴ Both explanations suggest that preschool is more likely to yield long-term academic benefits if it is followed with instruction that builds on initial gains.

Although there are only a few studies of long-term effects, there is evidence that preschool implemented at scale can have significant effects into adulthood. A random assignment study in Boston found increases in high school graduation, SAT scores, and college attendance and a decrease in juvenile incarceration, especially for boys, but no detectable impact on state achievement test scores.⁶⁵ A recent study of the Tulsa preschool likewise found effects on college enrollment.⁶⁶ Reviews of studies that assessed long-term effects, including some studies of Head Start participants, describe increases in college enrollment and decreases in incarceration rates and teen pregnancy.⁶⁷

A task force created by the Brookings Institution, which included individuals with very different perspectives on the value of state preschool, worked through all of the evidence on state-funded preschool to produce a consensus summary of impact.⁶⁸ Following is a summary of the task force's conclusions:

- Studies of different groups of preschoolers often find greater improvement in learning at the end of the pre-K year for economically disadvantaged children and dual-language learners than for more advantaged and English-proficient children.
- Pre-K programs are not all equally effective. Several effectiveness factors may be at work in the most successful programs. One such factor supporting early learning is a well-implemented, evidence-based curriculum. Coaching for teachers as well as efforts to promote orderly but active classrooms may also be helpful.
- Children's early learning trajectories depend on the quality of their learning experiences not only before and during their pre-K year but also following it. Classroom experiences early in elementary school can serve as charging stations for sustaining and amplifying pre-K learning gains. One good bet for powering up later learning is elementary school classrooms that provide individualization and differentiation in instructional content and strategies.
- Convincing evidence shows that children attending a diverse array of state and school district pre-K programs are more ready for school at the end of their pre-K year than children who do not attend pre-K. Improvements in academic areas such as literacy and numeracy are most common; the smaller number of studies of social-emotional and self-regulatory development generally show more modest improvements in those areas.
- Convincing evidence on the longer-term impacts of scaled-up pre-K programs on academic outcomes and school progress is sparse, precluding broad conclusions. The evidence that does exist often shows that improvements in learning induced prior to kindergarten are detectable during elementary school, but studies also reveal null or negative longer-term impacts for some programs.

ECONOMIC RETURN TO PRESCHOOL

Some impacts on individuals (improved school readiness, higher achievement, increased high school graduation, higher education attainment, higher earnings) bring social benefits, such as increased taxes, reduced use of welfare, and improved health. Other public-sector benefits come in the form of reduced child abuse and neglect and reduced incarceration. Public school savings are found in reduced grade retention and reduced special education use.

Because the large-scale programs are relatively recent, most cost-benefit analyses project benefits from shorter-term impacts. For example, a study of the Chicago Child-Parent Centers (CPC) used data from subjects at age twenty-six on special education use, grade retention, juvenile and adult crime, and adult earnings to project impact beyond age twenty-six, such

as earnings, taxes on earnings, incarceration, depression, smoking, and substance abuse. The net economic benefits to society were estimated to reach almost \$97,000 per child (in 2016 dollars), a return of nearly \$11 for every \$1 invested.⁶⁹ Looking across cost-benefit studies, including Chicago, Tulsa, and Head Start, estimates show a more realistic return of between 2:1 and 4:1; however, such analyses are based on many assumptions for which there is not total agreement. Another caveat is that the conclusions are based on relatively high-cost, high-quality preschool programs and are not likely to apply to programs of lower quality.⁷⁰

CONCLUSION AND RECOMMENDATIONS

Publicly supported preschool began with the goal of giving children living in poverty a “head start” in school, but over time it became a strategy for reducing the achievement gap and improving academic achievement. Will public preschool close the achievement gap? No. There are many other factors associated with poverty—including poor nutrition, crowded and unstable housing, poor medical care, and stress—that have significant effects on children’s learning. But access to high-quality preschool can give children from low-income families a fairer chance of succeeding in school, and the research on long-term impact suggests it can alter life trajectories. The operative term is “high-quality.” All of the research on long-term benefits with economic returns to individuals and society are based on programs that employed well-trained and well-supported staff.

This chapter has outlined a number of issues that need to be addressed after the decision to invest in public preschool has been made, such as whether to support a targeted or universal program, whether to implement a mixed-delivery or school-based delivery system, and how to define, measure, and ensure quality. Below are a few recommendations related to specific choices.

Clearly articulated goals are important. The goals guide program development as well as the strategies and measures used to assess program quality, support program improvement, and track progress in achieving the goals.

Achieving consensus on the goals is no easy task, because there are strong differences of opinion. But many of the differences rest on false dichotomies. Even if academic skills are the primary goal, all dimensions of children’s development play a role. Furthermore, developmentally appropriate, teacher-guided instruction can be playful, and time can be put aside for children to play freely and explore.

Quality is the primary consideration in any preschool system. Only preschool programs that meet high quality standards have shown long-term effects. States have many levers to affect policy, including program licensing standards, teacher and administrator credentialing standards, and ongoing resources to support effective teaching, child learning standards and assessments, quality monitoring systems, and curriculum guidance. These policies need to align with the articulated goals of preschool and with each other. For example, teacher

credentialing requirements and ongoing supports for teachers should prepare teachers to help children achieve the state learning standards.

Of the many dimensions affecting quality that these policy levers can be used to promote, the following are particularly important:

- Adult-to-child ratios that allow adults to form close, caring relationships with children
- Preparation and ongoing support for teachers in developmentally appropriate, differentiated instruction, including developing a safe, secure, and inclusive environment for all students
- Curricula that offer sufficient and developmentally appropriate attention to language, literacy, math, and social-emotional development as well as other important dimensions of child development such as creativity and motor development
- An assessment system that can be used to guide teacher decisions at the classroom level and track children’s progress related to the standards

Depending on the approach to be used, different policy considerations apply.

- If the decision is made to use public funds only for children in low-income families:
 - Because children from low-income families learn more on average in a mixed-SES setting, avoid isolating the poor by offering hybrid programs in which some children are subsidized by the state and some families pay tuition, or implement a sliding scale.
- If universal preschool is implemented:
 - Ensure that community-based providers for infants and toddlers are reimbursed enough to cover costs when they lose older children.
- If a school-based delivery system is employed:
 - Ensure that programs are developmentally appropriate for young children and that teachers and principals have training in ECE.
- If a mixed-delivery system is employed:
 - Establish strong program standards across school-based and CBO settings, and implement other policies (e.g., teacher pay equity) to support equity in quality. Findings suggest that even in states where efforts have been made to equalize quality, extra resources may be needed for CBO programs.

What happens after preschool affects the long-term benefits of preschool. Policies related to preschool should not be considered in isolation. If teachers in the later grades do not build on what children learned in preschool, the benefits will fade. Districts need to reflect on the nature and organization of instruction through the early grades, joining the movement expanding throughout the United States to develop greater P-3 alignment (i.e., alignment from preschool to third grade). States can help by making sure that learning standards, program standards, curricula, assessments, and teacher credentialing are aligned across preschool and the early grades. They also need to ensure strong connections among state agencies overseeing preschool and K-12 education.

Streamline connections between preschool and childcare. Working parents need childcare. The different funding sources and eligibility requirements cause difficulties for both programs and parents. States need to streamline funding and requirements for preschool and childcare as much as possible, and they need to facilitate wraparound childcare for preschool programs.

The politics of pre-K can be complicated to navigate. Many constituencies are affected by decisions related to state-funded preschool, including state agencies that oversee its implementation, community-based programs that are affected by whether and how they are included, higher education where teachers are prepared, school districts, Head Start, the people who staff the programs, and parents. All policy decisions should include their voices.

Preschool is not a panacea. It alone will not improve achievement scores and other important child outcomes. But of the many school improvement initiatives this series discusses, preschool is among the most studied and may have the most potential to move the needle.

HESI PRACTITIONER COUNCIL RESPONSES

Essays in this series were reviewed by members of the Hoover Education Success Initiative (HESI) Practitioner Council. For more information about the Practitioner Council and HESI, visit us online at hoover.org/hesi.

Deborah Stipek reflects well on the promises and challenges of preschool as an important policy decision and strategy for leaders who want to positively impact our citizens' outcomes. As demonstrated, there are wide-ranging differences in the quality and approaches to preschool. When policymakers meaningfully invest in high-quality early childcare, especially for our most vulnerable families, the benefits to our communities are clear.

The greatest challenge from my experience as the founder of a bipartisan early childhood caucus in North Carolina is the inability of families to pay the costs required to meet the measures of high-quality preschool that research has documented so well. This fiscal challenge,

along with an increased understanding of the relationship between early childhood and our workforce, offers an opportunity to engage business leaders and policymakers in innovative approaches to strengthen this important strategy in improving our collective future.

—Rep. Ashton Clemmons, North Carolina General Assembly

Preschool, whether universal or targeted (for lower-income families), or whether community-based or school-based, shows tremendous long-term impacts and returns. Certainly, as the piece highlights, there have been a few studies that show that the effects of preschool “fade” over time, but the vast majority of the larger, more longitudinal studies show otherwise. Preschool programs—especially those determined to be of quality—often have a substantial long-term impact on future high school graduation rates, college-going rates, and incarceration rates, to name a few.

One of the strongest arguments to be made—highlighting the return on investment of preschool—was found in two places in this piece. One study (Perry Preschool Project) found a return on investment of 8:1. Another study (Chicago Child-Parent Centers) resulted in a 6:1 return, although others later estimated the return could be somewhere between 2:1 and 4:1. Regardless, there is sufficient longitudinal evidence that there is a significant return on investment of preschool—both economically (a return of between 2:1 and 8:1) and in terms of personal performance and success (education and employment).

For these reasons, I have no concerns about moving forward with this as a major area of reform, but I would advise lawmakers to continue to look at best practices and the research related to quality, access (universal or targeted), and model (community or school based) to determine the most appropriate policy for each state, considering financial and political context.

—Chad E. Gestson, EdD, Arizona Institute for Education and the Economy, Northern Arizona University

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A Nation at Risk + 40

The modern school-reform movement in the United States was set in motion by the release of the report *A Nation at Risk* in 1983. Countless education policy changes at the local, state, and national levels came as a result. *A Nation at Risk + 40* is a research initiative designed to better understand the impact of these efforts. Each author in this series has gone deep in a key area of school reform, exploring the following questions: *What kinds of reforms have been attempted and why? What is the evidence of their impact? What are the lessons for today's education policymakers?* As the nation's schools work to recover from the effects of the COVID-19 pandemic, this series not only describes the education-reform journey of the past forty years, it also provides timely and research-driven guidance for the future.

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