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The State of Preschool 2018

STATE PRESCHOOL YEARBOOK

The National Institute for Early Education Research

RUTGERS
Graduate School of Education

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Executive Summary

THE CHANGING LANDSCAPE OF STATE-FUNDED PRESCHOOL

The State of Preschool 2018 is the 16th edition of NIEER's annual report tracking state-funded preschool access, resources, and quality. Since 2002, the preschool landscape has changed in many ways; and in others, it has remained the same – highlighting the need for a renewed commitment to progress.

Since 2002 when NIEER began tracking preschool enrollment, states have added more than 882,000 seats in state-funded preschool, mostly for four-year-olds. Progress has been uneven both across states and over time. The annual change in the number of children served in state-funded preschool has varied from an increase of nearly 140,000 children between 2004-2005 and 2005-2006—a nearly 18% jump—to a decrease between 2011-2012 and 2012-2013.

Figure 1 shows how the annual change in the number of 3- and 4-year-olds served in state-funded preschool has evolved over the last 16 years. For the most part, preschool enrollment grew steadily up until the Great Recession. Beginning in 2008, annual increases shrink, hitting a low point in 2012 when the number of children enrolled decreased. The recovery in state pre-K growth has been anemic from 2013 to the present, with average annual increases below the pre-recession level.

At the current pace, it would take states nearly 20 years to serve just half of all 4-year-olds in preschool. And with the sun-setting of federal PDG support, some states may struggle to even sustain current levels of enrollment. It would take nearly a century to reach the 50% mark for 3-year-olds at the current pace. As federal support for preschool wanes, states need to renew their commitment to high-quality preschool or risk leaving too many children behind. In many places, cities have stepped up to the challenge of going beyond what states provide and have emerged as leaders—examples include New York City, Austin, Boston, Philadelphia, Seattle, San Antonio, Denver, Columbus, Cleveland, Cincinnati, and San Francisco.

Over the last decade, in addition to expanding access to state-funded preschool, many states have made concerted efforts to increase enrollment in school-day or longer programs. This shift to a longer program duration supports children's development as long as quality is high and better accommodates the needs of working parents. Not all states are able to report enrollment of children by operating schedule, but among those that can, there has been a trend toward more children in longer program days.

FIGURE 1. ANNUAL CHANGE IN THE NUMBER OF 3- AND 4-YEAR-OLDS SERVED IN STATE-FUNDED PRESCHOOL

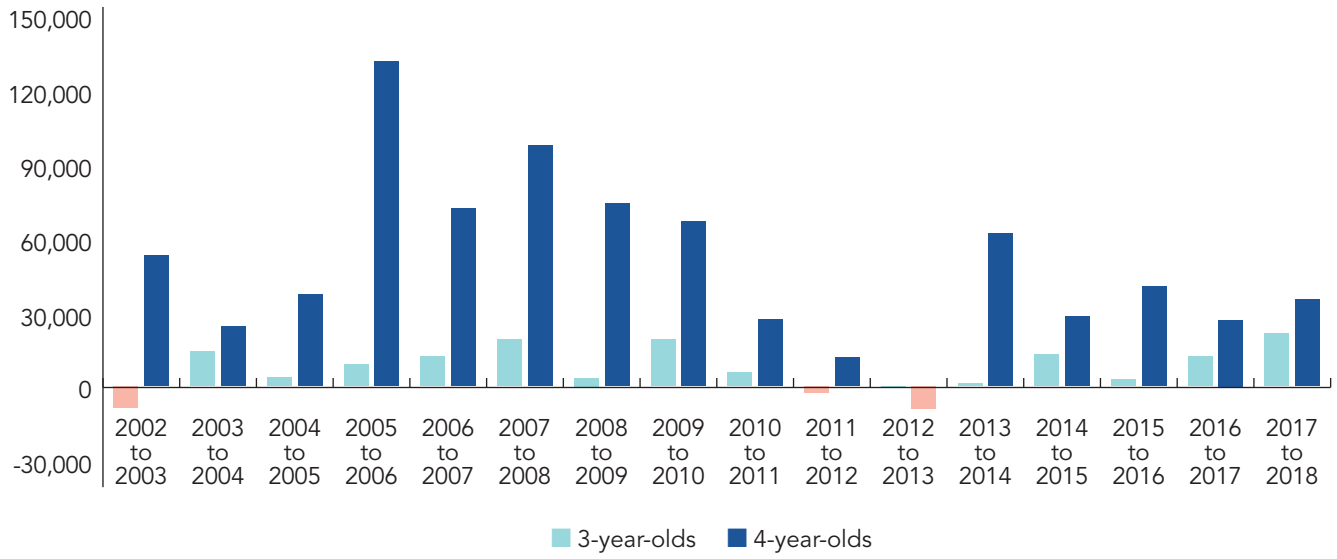
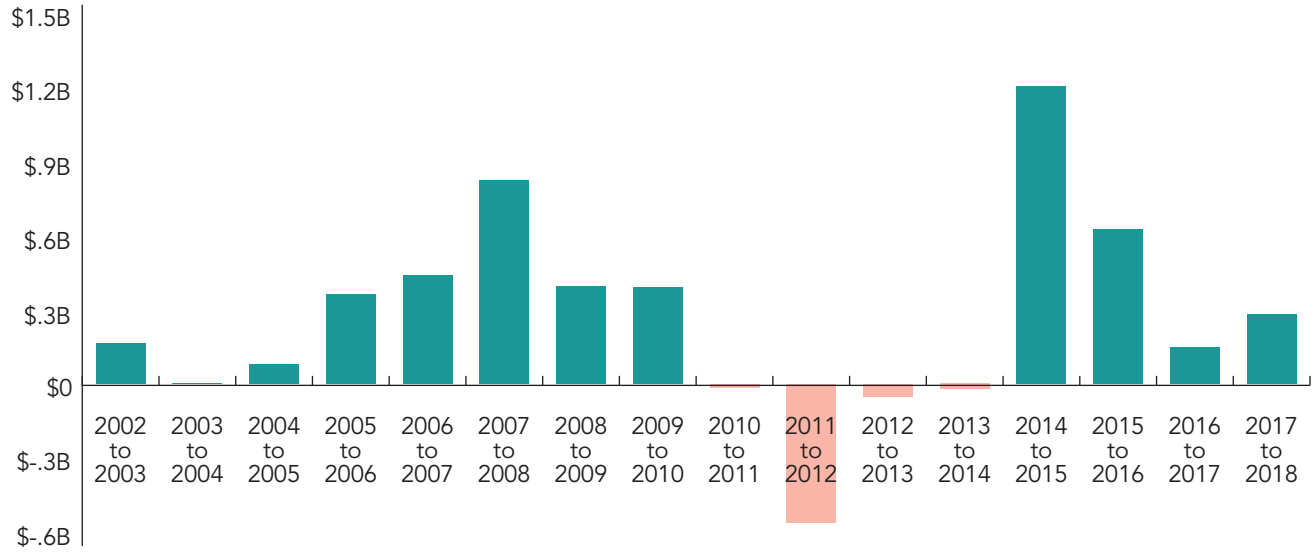


FIGURE 2. ANNUAL CHANGE IN THE TOTAL STATE SPENDING ON PRESCHOOL (IN 2018 DOLLARS, BILLIONS OF DOLLARS)



The annual (inflation-adjusted) change in total state spending on preschool also varied greatly over the last 16 years and followed a similar pattern to enrollment (see Figure 2). Prior to the Great Recession, the annual average increase grew larger each year. From 2010-2011 to 2013-2014, state preschool spending bottomed out, decreasing by nearly $600 million dollars in the worst year. Spending rebounded in 2014, with the largest single year increase of $1.2 billion, but the rate of increase has fallen sharply since. Last year's increase was just a quarter of the size of the largest increase. This pattern of spending changes is reflected in enrollment. However, spending levels also relate to length of day and quality standards. Some states have made progress on all of these dimensions, while others have not. Unless state spending begins to grow faster, it will not be possible for states to make much progress in access, quality, or the provision of longer days.

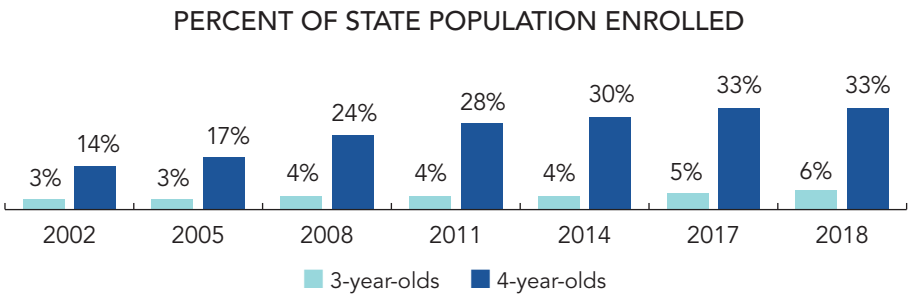
WHAT'S NEW?

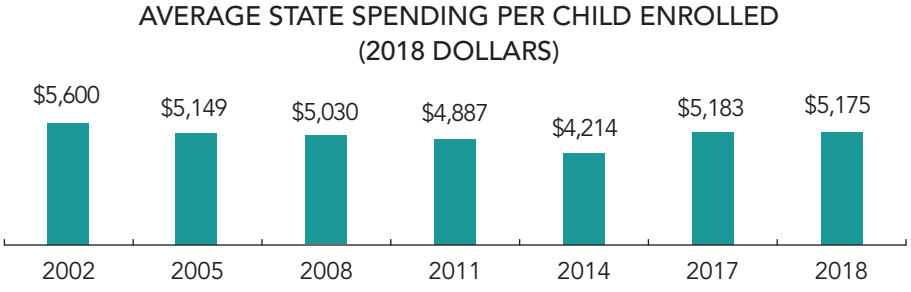
Resources

- Total state funding for preschool programs was more than $8.15 billion across the 44 states and D.C.* that offered preschool during the 2017-2018 school year. State funding surpassed $8 billion for the first time after an inflation-adjusted increase of $286 million (or 3.6%) over 2016-2017. This increase was nearly double last year's increase in state funding.
- Average state funding per child was $5,175 in 2017-2018. Although there was a small increase ($168) in nominal spending per child, spending per child decreased by $8 after adjusting for inflation.
- Eight states reported an increase in total state preschool spending (inflation-adjusted) of more than $10 million. Four states increased their inflation-adjusted preschool spending by more than 50%.
- Sixteen states increased spending per child (inflation-adjusted), including three states that increased this by more than $1,000 per child.
- In 18 states 2014 competitive federal Preschool Development Grants (PDG) provided almost $244 million in 2017-2018. Approximately $102 million of the federal PDG supported increased enrollment or quality enhancements in state preschool, while the remaining funds supported children in other preschool programs.

Enrollment

- States enrolled almost 1.58 million children in state-funded preschool, including more than 1.3 million 4-year-olds—one-third of all 4-year-olds in the country. Enrollment of 3-year-olds was just more than 227,000, or nearly 5.7% of 3-year-olds.
- Nearly 56,000 4-year-old children enrolled in state-funded preschool were supported either entirely or partially by federal PDG, an increase of about 7,300 from last year.
- Enrollment in state-funded preschool nationwide increased by only 33,827 4-year-olds and 21,292 3-year-olds from 2016-2017. Though small, these are larger than last year's increases. Much of the increase in 4-year-olds enrolled can be attributed to additional seats funded by federal PDG.
- Eighteen states decreased enrollment of 3- and 4-year-olds, including Indiana which did not lower enrollment but changed the rules for program eligibility so that it no longer met the definition of state-funded preschool used in this report. On the flip side, 13 states increased enrollment of 3- and 4-year-olds by more than 1,000.
- Ten states served nearly 50% or more of 4-year-olds in their states. Four states served more than 70%. D.C. and Vermont are the only two states to serve more than 50% of 3-year-olds.
- Across all public programs—preschool general and special education plus federal and state-funded Head Start—44% of 4-year-olds and 16% of 3-year-olds were served. Since NIEER began tracking enrollment in 2002, enrollment of 4-year-olds across these programs has increased by 13.5 percentage points, and enrollment of 3-year-olds has increased by only 2.8 percentage points.





*Consistent with U.S. government statistical reporting practices, the District of Columbia will be referred to as a "state" throughout this report. Hence, we report 45 "states" providing state-funded preschool.

Quality

- For the third year, NIEER assessed state preschool policies using an updated set of minimum quality standards benchmarks focusing on process quality and reflecting recent research on effective early childhood education. This year we report only on these new quality standards benchmarks.
- Alabama, Michigan, and Rhode Island were the only three states to meet all 10 of NIEER's benchmarks for minimum state preschool quality standards. Alabama and Rhode Island expanded access while leading on quality; Michigan expanded access to school-day services.
- As a result of policy changes, Tennessee met two additional quality standards benchmarks—Early Learning and Development Standards (ELDS) and Curriculum supports, Connecticut CDCC met one additional quality standards benchmark—ELDS, and Oklahoma met one additional quality standards benchmark—staff professional development. Two programs also met fewer quality standards benchmarks this year due to policy changes—Alaska and the Kansas Preschool Pilot Program.
- Twelve programs met fewer than half of the quality standards benchmarks, including states with the largest numbers of children in state-funded preschool, and largest numbers of children in poverty.

Important Developments

- Montana and North Dakota each offered a state-funded preschool program included in this report for the first time in 2017-2018. Montana enrolled 306 children (2% of 4-year-olds) and met six quality standards benchmarks. North Dakota enrolled 965 4-year-olds (9%) and met just two quality standards benchmarks.
- Indiana's On My Way Pre-K Program no longer meets the definition of a state-funded preschool program used in this report due to changes that link program eligibility to parent work status. However, in 2017-2018, On My Way Pre-K served 2,423 children.
- For the second time, NIEER included a supplemental survey about preschool policies to support the preschool workforce, particularly around compensation parity with K–3.
- Only four states, Hawaii, New Jersey, Oklahoma, and Rhode Island, require all preschool teachers to have a bachelor's degree and teaching certification, while also requiring salary parity between preschool and K–3 teachers.
- All but one state has specific in-service professional development requirements for preschool teachers, but in many states requirements differ for preschool teachers in public schools and nonpublic settings. And, many fewer programs have policies requiring equivalent paid professional development time between preschool teachers and K-3 teachers.
- Eighteen states used federal funding from the 2014 PDG to support enrollment of low-income 4-year-olds in high-quality preschool. Almost $244 million was used to support 55,925 high-needs four-year-olds and to raise pre-K quality. About 42% of that funding was used to support more than 35,000 four-year-olds enrolled in state-funded preschool programs. While the PDG has contributed to the progress in enrollment of 4-year-olds over the past several years, for many states, this is the last year of their federal PDG funding. Eight states reported plans to sustain the PDG-level of funding and enrollment using other means, and another nine reported they were working on a plan. This reduction in federal funding presents a challenge for maintaining and expanding access to quality pre-K.
- In December 2018, 47 states and 2 territories were awarded federal Preschool Development Grant Birth through Five (PDG B–5) awards. Unlike the 2014 PDG, the PDG B-5 is a planning grant to improve state early childhood systems, and funding may not be used to support enrollment. One-year PDG B-5 awards ranged from $538,000 to $10.6 million.

TABLE 1: STATE RANKINGS AND QUALITY CHECKLIST SUMS

STATE	Access for 4-Year-Olds Rank	Access for 3-Year-Olds Rank	Resources Rank Based on State Spending	Resources Rank Based on All Reported Spending	**Quality Standards Checklist Sum (Maximum of 10)**
Alabama	25	None served	21	19	10
Alaska*	42	None served	3	4	3
Arizona	41	21	28	37	3
Arkansas	17	5	19	8	8
California	14	8	8	17	4.3
Colorado	28	11	39	36	5
Connecticut*	21	10	9	5	5
Delaware	38	20	10	21	7
District of Columbia	1	1	1	1	3
Florida	2	None served	41	43	2
Georgia	8	None served	27	35	8
Hawaii	45	None served	11	23	7
Illinois	26	3	24	32	8
Iowa	7	19	37	40	7.9
Kansas	15	None served	44	44	4
Kentucky	23	9	26	12	7
Louisiana	20	None served	22	33	8
Maine	12	None served	36	22	9
Maryland	13	15	31	13	7
Massachusetts	22	6	40	42	6.2
Michigan	18	None served	14	26	10
Minnesota*	35	24	16	20	5.5
Mississippi	40	None served	42	31	9
Missouri	43	25	25	34	8
Montana	44	30	6	11	6
Nebraska	16	7	43	24	8
Nevada	39	27	29	18	6
New Jersey	24	4	2	2	8
New Mexico	19	18	17	30	9
New York	9	22	13	25	7
North Carolina	27	None served	20	10	8
North Dakota	36	None served	45	45	2
Ohio	33	23	30	38	5
Oklahoma	4	None served	34	14	9
Oregon*	32	13	4	6	7.5
Pennsylvania*	31	14	7	16	7
Rhode Island	34	None served	18	3	10
South Carolina	11	29	38	41	7
Tennessee	29	28	23	29	7
Texas	10	12	35	39	4
Vermont	3	2	12	15	7
Virginia	30	None served	33	27	6
Washington	37	16	5	9	8
West Virginia	6	17	15	7	9
Wisconsin*	5	26	32	28	3.1
Idaho	No program	No program	No program	No program	
Indiana	No program	No program	No program	No program	
New Hampshire	No program	No program	No program	No program	
South Dakota	No program	No program	No program	No program	
Utah	No program	No program	No program	No program	
Wyoming	No program	No program	No program	No program	

* At least one program in these states did not break down total enrollment figures into specific numbers of 3- and 4-year-olds served. As a result, enrollment by single year of age was estimated.

NATIONAL ACCESS

Total state pre-K enrollment, all ages ..... 1,577,761[1]

State-funded preschool programs ..... 61 programs in 44 states and D.C.[1]

Income requirement ..... 32 state programs have an income requirement

Minimum hours of operation ..... 30 part-day; 11 school-day; 6 extended-day; 14 determined locally[2]

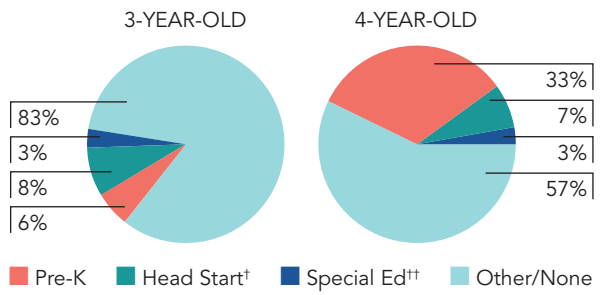
Operating schedule ..... 1 full calendar year; 42 school/academic year; 18 determined locally

Special education enrollment, ages 3 and 4 462,383

Federally funded Head Start enrollment, ages 3 and 4 ..... 687,535[3]

State-funded Head Start enrollment, ages 3 and 4 ..... 18,580[4]

PERCENT OF POPULATION ENROLLED IN PUBLIC ECE



† Some Head Start children my also be counted in state pre-K.
†† Estimates children in special education not also enrolled in state pre-K or Head Start.

NATIONAL QUALITY STANDARDS CHECKLIST SUMMARY

POLICY	BENCHMARK	OF THE 61 STATE-FUNDED PRE-K INITIATIVES, NUMBER MEETING BENCHMARK
Early learning & development standards	**Comprehensive, aligned, supported, culturally sensitive**	**57**
Curriculum supports	**Approval process & supports**	**55**
Teacher degree	**BA**	**36**
Teacher specialized training	**Specializing in pre-K**	**50**
Assistant teacher degree	**CDA or equivalent**	**17**
Staff professional development	**For teachers & assistants: At least 15 hours/year; individual PD plans; coaching**	**9**
Maximum class size	**20 or lower**	**46**
Staff-child ratio	**1:10 or better**	**49**
Screening & referral	**Vision, hearing & health screenings; & referral**	**42**
Continuous quality improvement system	**Structured classroom observations; data used for program improvement**	**35**

For more information about the benchmarks, see the Executive Summary and Roadmap to State Profile Pages.

NATIONAL RESOURCES

Total state pre-K spending ..... $8,157,721,430[5]

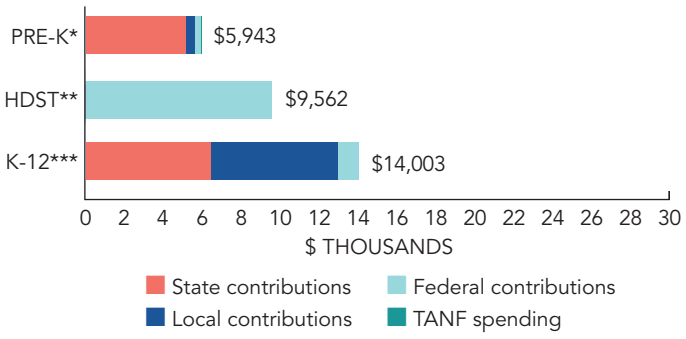
Local match required? ..... 14 state programs require a local match

State Head Start spending ..... $180,244,924[6]

State spending per child enrolled ..... $5,175[5]

All reported spending per child enrolled* $5,943

SPENDING PER CHILD ENROLLED



* Pre-K programs may receive additional funds from federal or local sources that are not included in this figure.

** Head Start per-child spending includes funding only for 3- and 4-year-olds.

*** K-12 expenditures include capital spending as well as current operating expenditures.

[1] Throughout this report, the District of Columbia is included like a state, resulting in a list of 45 states for rankings. In 2015-2016, Guam began offering a "state"-funded pre-K program but is not included in totals or rankings in this report.

[2] NIEER's definitions of hours of operation are as follows: part-day programs serve children for fewer than 4 hours per day; school-day programs serve children at least 4 hours per day but fewer than 6.5 hours per day; and extended-day programs serve children for 6.5 or more hours per day. Some programs offer multiple hours of operation but only the minimum one is listed here.

[3] The enrollment figures for federal Head Start include children enrolled in the program in all 50 states, D.C., and the U.S. territories, as well as enrollment in the Migrant & Seasonal and American Indiana/Native Alaskan programs. These numbers do not include children funded by state match.

[4] This figure is based on the Head Start enrollment supported by state match as reported by ACF and additional information from surveys of state supplemental Head Start programs. This figure includes 15,425 children who attended programs that were considered to be state-funded preschool programs and are also included in the state-funded preschool enrollment total.

[5] This figure included federal TANF funds directed toward preschool at states' discretion.

[6] This figure includes $146,128,634 also included in the total state pre-K spending.

National Overview

ENROLLMENT: SLOW TO NO GROWTH

State-funded preschool served 1,577,761 children during the 2017-2018 school year. The vast majority—85% or 1,338,127 children—were 4-year-olds, as state-funded preschool continues to be a program predominantly for 4-year-old children. Table 2 reports the number and percentage of the population of 3- and 4-year-olds enrolled by state, and nationally. Nationwide, 33% of 4-year-olds and 5.7% of 3-year-olds were enrolled in state-funded preschool in 2017-2018.

Despite the overall lackluster picture, there was some good news last year. Montana and North Dakota began state-funded preschool programs, moving off of the "No program" list. Massachusetts' Chapter 70 program is included in the report for the first time, and has a substantial enrollment, though their Inclusive Preschool Learning Environment Grant is being phased out and is no longer included in the report. Guam continued to offer pre-K, the only U.S. territory to fund a preschool program.

Total enrollment in state-funded preschool increased slowly once again. States added only 21,292 three-year-olds and 33,827 four-year-olds over the prior year totals. These small increases amount to only half a percentage point for 3-year-olds and less than a percentage point for 4-year-olds. Although these increases were larger than last year, the difference is small, and there has been little progress towards increased enrollment for several years. Additionally, some of the increase in enrollment of 4-year-olds can be attributed to the federal PDG program, funding for which runs out soon, and not all states have made plans to sustain the funding and enrollment from this program. Thirteen states added more than 1,000 3- and 4-year-olds, including Massachusetts where an additional 24,000 children were enrolled due to inclusion of their Chapter 70 program in the report for the first time. Unfortunately, five states decreased enrollment by more than 1,000 three- and four-year-olds (Michigan, New Jersey, New Mexico, New York, and Wisconsin). Table 3 reports the changes in the number and percent of children served from the first year NIEER started tracking state preschool enrollment (2001-2002) and from last year (2016-2017).

FIGURE 3: PERCENT OF 4-YEAR-OLDS SERVED IN STATE PRESCHOOL VARIES WIDELY

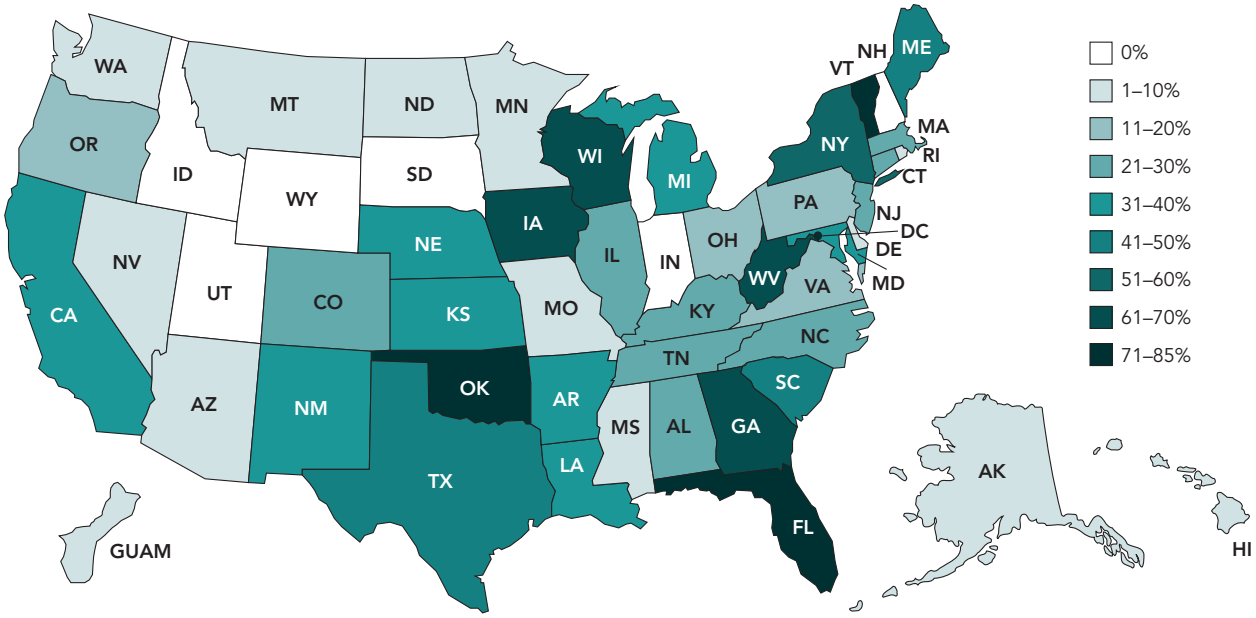
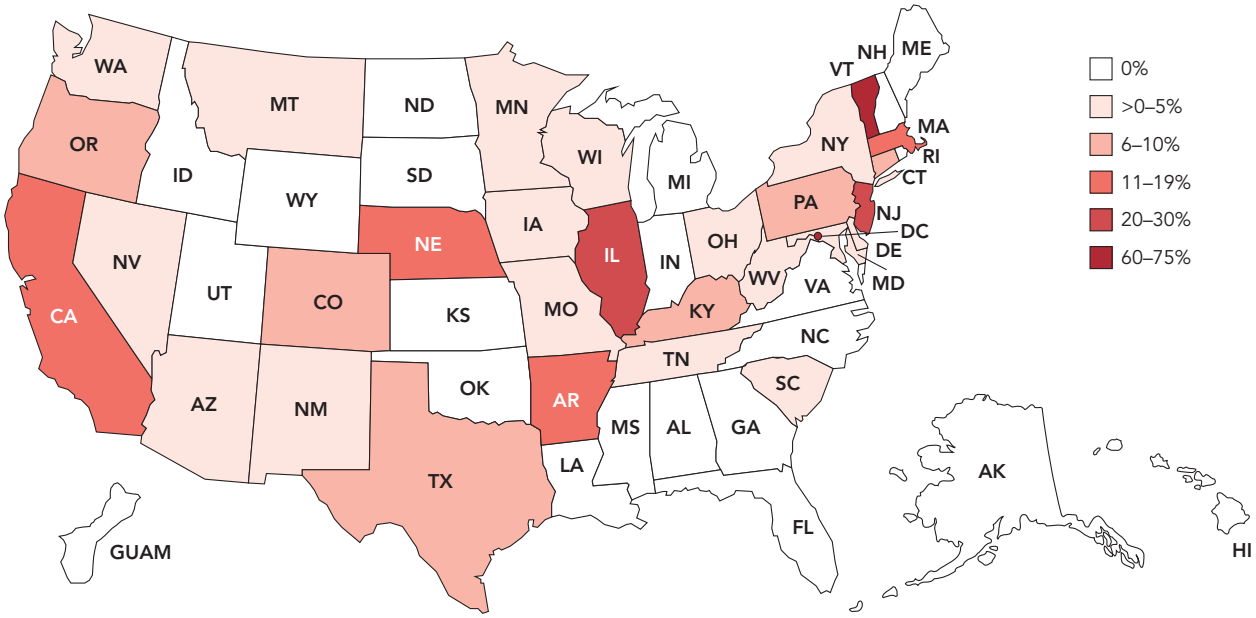


FIGURE 4: PERCENT OF 3-YEAR-OLDS SERVED IN STATE PRESCHOOL LOW IN MOST STATES



Enrollment varies greatly by state. The District of Columbia ranks first in access for both 3- and 4-year-olds, serving 73% of 3-year-olds and 85% of 4-year-olds. Three other states (Florida, Vermont, and Oklahoma) served more than 70% of 4-year-olds. And another six states served about half of all the state's 4-year-olds (Wisconsin, West Virginia, Iowa, Georgia, New York, and Texas). Conversely, 11 states enrolled less than 10% of 4-year-olds (Minnesota, North Dakota, Washington, Delaware, Nevada, Mississippi, Arizona, Alaska, Missouri, Montana, and Hawaii). Several of these states have demonstrated little progress in increasing enrollment, but others are new to providing preschool and North Dakota did reach 9% of 4-year-olds during its first year of program operation. Six states did not operate a preschool program in 2017-2018 that met the definition of a state-funded preschool program used in this report. Figure 3 displays a map of the percent of 4-year-olds enrolled in state-funded preschool in each state.

Enrollment of 3-year-olds in state-funded preschool continues to lag far behind and grow very slowly, increasing from 2.7% in 2001-2002 to only 5.7% in 2017-2018. Only 30 states fund enrollment of 3-year-olds in state-funded preschool but a few others allow 3-year-olds to be served in state-funded preschool classrooms supported by other sources of funding. D.C. and Vermont are exceptional in serving more than half of their 3-year-olds. Illinois, New Jersey, and Arkansas follow, serving close to or more than one-fifth of 3-year-olds. Figure 4 displays a map of the percent of 3-year-olds enrolled in state-funded preschool in each state.

STATE PRESCHOOL POLICIES RELATED TO PROGRAM QUALITY: IN NEED OF IMPROVEMENT

A primary goal of state-funded preschool education is to support the learning and development of young children as a means of improving the quality of their lives now and in the future. Research finds that preschool programs can accomplish this goal, but that doing so at scale has proven difficult.[1] Only high-quality preschool programs can be expected to produce large and lasting gains in outcomes such as achievement, educational attainment, personal and social behavior (e.g., reductions in crime), and adult health and economic productivity.[2]

NIEER has developed a rating system for 10 preschool policy standards related to quality to help guide policymakers seeking to enhance and support high quality. To do this, we employed a process that business and government commonly use to design for success: "benchmarking" against acknowledged leaders. Benchmarking identifies common features of highly successful organizations as well as what differentiates them from the rest.

We began by identifying preschool programs that research has found to produce large, broad, and lasting improvements in children's learning and development.[3] Not surprisingly, the quality of a child's experiences in the classroom is a key to success. Public policies cannot directly control quality, but they can specify program features and state operations that support classroom quality. We identified 10 key features common to highly effective programs that can be determined by policy, and set "benchmarks" for policies related to those features.

Since NIEER first developed the benchmarks, both policies and research on program effectiveness have advanced. As the Yearbook has documented, most states have strengthened their preschool policies. All or nearly all states now meet several of the original benchmarks. In addition, the field has learned more about how program features contribute to quality and effectiveness at scale.[4] Based on progress and a review of the new evidence, we revised our benchmarks for state policy. The revised benchmarks place less emphasis on structural quality and monitoring, and more emphasis on a coherent system of continuous improvement for process quality. We believe these revisions are a shift in favor of policies better able to shape classroom experiences in ways that can strongly enhance learning and development.

The benchmarks provide a coherent set of *minimum* policies to support meaningful, persistent gains in learning and development that can enhance later educational and adult life achievement. Programs supported by these policies will be more likely to achieve their goals. However, the benchmarks cannot guarantee success, which depends on other factors including adequate funding and strong implementation of both policy and practice. Even the best policies can be undermined by lack of funding or inattention to full implementation.

Below, we explain each benchmark, along with the evidence and reasoning behind it. We hope this will increase understanding of the benchmarks and why they matter.

Benchmark 1. Early Learning and Development Standards (ELDS). A state's ELDS specify a program's goals. Clear and appropriate expectations for learning and development across multiple domains are an essential starting place for quality.[5] States should have comprehensive ELDS covering all areas identified as fundamental by the National Education Goals Panel[6]—children's physical well-being and motor development, social/emotional development, approaches toward learning, language development, and cognition and general knowledge. Neglecting any of these development domains could weaken both short- and long-term effectiveness.[7]

To meet the benchmark, ELDS should be specific to preschool-aged children and vertically aligned with state standards for younger and older children so that children's experiences at each stage build on what has gone before.[8] ELDS also should be aligned with any required child assessments, and sensitive to children's diverse cultural and language backgrounds.[9] Finally, the state must provide some support for those charged with implementing the ELDS so they understand them, such as professional development and additional resources.

Benchmark 2. Curriculum supports. A strong curriculum that is well-implemented increases support for learning and development broadly, and includes specificity regarding key domains of language, literacy, mathematics, and social-emotional development.[10] To meet the benchmark for curriculum support, states must provide (a) guidance or an approval process for selecting curricula, and (b) training or ongoing technical assistance to facilitate adequate implementation of the curriculum.

Benchmark 3. Teacher degree. To meet the benchmark, state policy must require lead teachers in every classroom to have at least a bachelor's degree. This follows recommendations from multiple studies by the Institute of Medicine (IOM) and National Research Council (NRC) of the National Academy of Science recommending that preschool teachers have a BA with specialized knowledge and training in early childhood education.[11] Their conclusions are supported by an analysis of what teachers are expected to know and do in order to be highly effective. Also, a comprehensive review finds that teachers with higher educational levels generally provide higher quality educational environments for young children.[12]

Much of the research has approached the question of teacher degree requirements incorrectly by assuming that teacher qualifications and other program features act independently, are unconstrained by regulation, and are independent of unmeasured contexts that affect outcomes.[13] When multiple program features are interdependent, benchmarking is a more appropriate approach for identifying the features associated with success.[14] We found no examples of programs that have produced large persistent gains in achievement without well-qualified teachers.

It also follows that teacher qualifications should not be expected to have an effect in isolation. Compensation must be adequate to attract and retain strong teachers, regardless of qualifications requirements.[15] We have not made this part of the benchmark due to the difficulty of ascertaining exactly what "adequate compensation" is for each state—but that does not lessen its importance. Compensation is the focus of a supplemental section in this report.

Benchmark 4. Teacher specialized training. IOM/NRC reports have also emphasized that preschool lead teachers should have specialized preparation that includes knowledge of learning, development, and pedagogy specific to preschool-age children.[16] To meet the benchmark, policy must require specialized training in early childhood education and/or child development. We recognize that early childhood teacher preparation programs are variable. States may wish to consider supports to improve programs offered by their state institutions of higher education and alignment with the state ELDS.[17]

Benchmark 5. Assistant teacher degree. All members of a teaching team benefit from preservice preparation. The Child Development Associate (CDA) was developed as the entry-level qualification for the field.[18] Other certifications or coursework can provide similar preparation. There has been limited research specific to the qualifications of assistant teachers, but evidence indicates that assistant teacher qualifications are associated with teaching quality. To meet the benchmark, policy must require that assistant teachers hold a CDA or have equivalent preparation.

Benchmark 6. Staff professional development. To meet this benchmark both teachers and assistant teachers must be required to have at least 15 hours of annual in-service training. In addition, some professional development must be provided through coaching or similar ongoing classroom-embedded support. Lead and assistant teachers are also required to have annual written individualized professional development plans. Research indicates regular professional learning, including coaching, supports teaching practices related to high-quality experiences for children.[19] Individualized professional development focused on helping teachers improve in their own classrooms has been found more effective than traditional workshops and general professional development.[20] Good teachers actively engage in learning and regular professional development, and there is some evidence for a 15-hour threshold.[21]

Benchmarks 7 and 8. Maximum class size (20) and staff-child ratio (1:10). These two benchmarks are addressed together as they are highly linked in policy and practice. To meet benchmark 7, class size should be limited to at most 20 children. To meet benchmark 8, classes should be permitted to have no more than 10 children per classroom teaching staff member. Small class size and corresponding teacher-child ratios characterize the most effective programs, even though many studies find weak or no association between these features and effectiveness.[22] Yet, it seems clear that smaller classes and fewer children per teacher enable teachers to interact with each child more frequently, to work with smaller groups, and offer each child more individualized attention, which results in better outcomes. The smaller the class, the easier it is for a teacher to develop a good understanding of each child's interests, needs, and capabilities.

What may be the best designed large-scale randomized trial of class size for young children to date found substantive and lasting impacts on achievement and educational success for smaller class sizes in kindergarten.[23] Subsequent efforts to reproduce these results through policy changes elsewhere have been far less successful. Again, we note that key policies regarding program features are not independent of other policies, context, and implementation.

A staff-child ratio of 1:10 is lower than in programs found to have the largest persistent effects, but it is generally accepted by professional opinion. A recent meta-analysis suggests an even lower threshold, below 1 to 7.5 (class size of 15), would be better, and that finding is consistent with experimental evidence for kindergarten.[24] On the other hand, at least one program has produced large short-term gains with a maximum class size of 22 and 1:11 staff to child ratio, just outside the benchmarks.[25]

Benchmark 9. Screenings and referrals. To meet the benchmark, policies should require that preschool programs ensure children receive vision, hearing, and other health screenings and referrals.[26] This benchmark recognizes that children's overall well-being and educational success involve not only cognitive development but also physical and mental health.[27]

Benchmark 10. Continuous Quality Improvement System (CQIS). An effective CQIS operates at local and state levels to ensure that information is gathered regularly on processes and outcomes, and that this information is used to guide program improvement. To meet this benchmark, policy must at a minimum require that (1) data on classroom quality is systematically collected at least annually, and (2) local programs and the state both use information from the CQIS to help improve policy or practice. The use of a cycle of planning, observation, and feedback has characterized highly effective programs.[28]

The State of Preschool 2018 reports on 10 quality standards benchmarks that are viewed as minimums for effective preschool education. These are briefly described in Figure 5 which also outlines how the current quality standards benchmarks differ from those used prior to 2016. Table 5 summarizes the quality standards benchmarks met by each program.

FIGURE 5: CURRENT AND FORMER QUALITY STANDARDS BENCHMARKS

CURRENT STANDARD	CHANGE	FORMER STANDARD
Comprehensive Early Learning and Development Standards that are horizontally and vertically aligned, supported, and culturally sensitive	Enhanced	Comprehensive Early Learning Standards
Supports for Curriculum Implementation	New	None
Lead Teacher Degree (BA)	No change	Lead Teacher Degree (BA)
Lead Teacher Specialized Training in ECE/CD	No change	Lead Teacher Specialized Training in ECE/CD
Assistant Teacher Degree (CDA)	No change	Assistant Teacher Degree (CDA)
15 hours/year of professional development, annual individualized plans professional development plans, and coaching for lead and assistant teachers	Enhanced	Teacher-in-Service (15 hours/year)
Maximum Class Size (20)	No change	Maximum Class Size (20)
Staff-Child Ratio (1:10)	No change	Staff-Child Ratio (1:10)
Screenings & Referrals	Slight Change	Screenings & Referrals & 1 Support Service
None	Discontinued	Meals (At least 1)
Continuous Quality Improvement System	Enhanced	Monitoring (Site Visits at least once every five years)

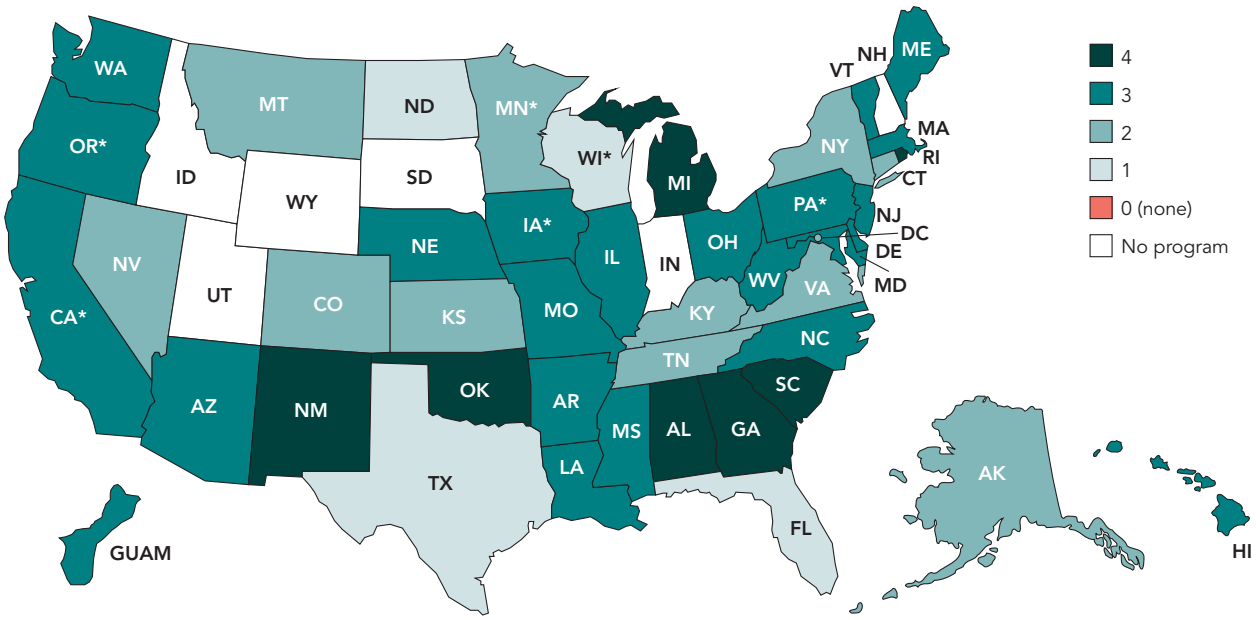
Alabama, Michigan, and Rhode Island met all ten of NIEER's quality standards benchmarks. Six other programs met nine benchmarks (Louisiana NSECD, Maine, Mississippi, New Mexico, Oklahoma, and West Virginia). Twelve programs met less than half of the quality standards benchmarks: Kansas' two programs, Pennsylvania RTL, and Texas met four; Alaska, Arizona, District of Columbia, Pennsylvania K4/SBPK, and Wisconsin 4K met three; and California TK, Florida, and North Dakota met two. The District of Columbia falls short because charter schools serving a substantial part of the population (more than 50%) are not required to meet the district's preschool standards.

Progress on policies to support quality practices was minimal. Only three states enacted new policies that led to meeting additional NIEER quality standards benchmarks in 2017-2018. Tennessee met two additional benchmarks: Early Learning and Development Standards (ELDS) and Curriculum Supports. Connecticut CDCC also newly met the ELDS benchmark. Oklahoma passed a new law that resulted in the state meeting the staff professional development benchmark for the first time. A few programs moved in the wrong direction, changing policies that resulted in meeting fewer quality standards benchmarks.

Looking at the four benchmarks that focus on process quality (ELDS, Curriculum Supports, Professional Development, and CQIS), only seven programs met all four (Alabama, Georgia, Michigan, New Mexico, Oklahoma, Rhode Island, and South Carolina). For the first time, there were no programs that did not meet any of these benchmarks. However, eight only met one. Figure 6 displays the number of these four benchmarks met by each state.

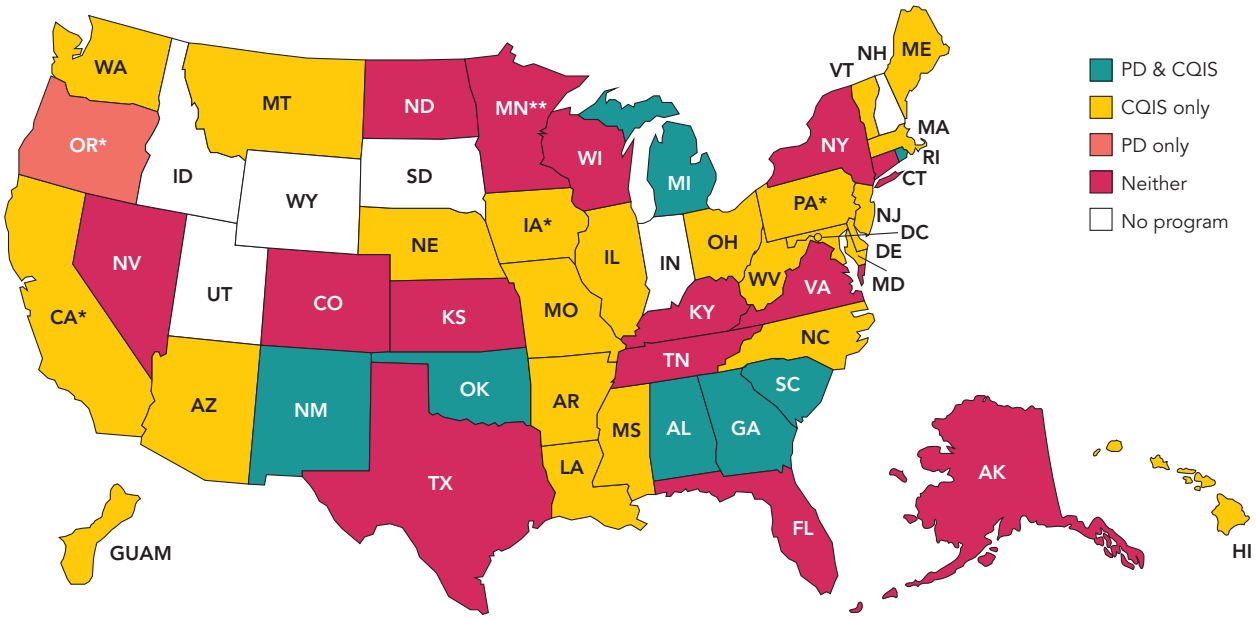
The Professional Development benchmark was met by the fewest programs: only nine (Alabama, Georgia, Michigan, Minnesota Head Start, New Mexico, Oklahoma, Oregon Head Start, Rhode Island, and South Carolina). Thirty-five states met the CQIS benchmark. Figure 7 shows which states met the Professional Development and CQIS benchmarks in 2017-2018.

FIGURE 6: ONLY SEVEN STATES MEET ALL FOUR PROCESS-QUALITY FOCUSED QUALITY STANDARDS BENCHMARKS



* These multi-program states have programs with different quality standards. Data displayed on the map reflect quality standards benchmarks in the largest program in the state.

FIGURE 7: ONLY SEVEN STATES MEET BOTH THE PROFESSIONAL DEVELOPMENT (PD) AND CONTINUOUS QUALITY IMPROVEMENT SYSTEM (CQIS) QUALITY STANDARDS BENCHMARKS



* These multi-program states have programs with different quality standards regarding PD and CQIS. Data displayed on the map reflect quality standards benchmarks in the largest program in the state.

** Minnesota's smaller program meets the PD benchmark, but not CQIS.

RESOURCES: CAN'T KEEP UP

In 2017-2018, 44 states and the District of Columbia spent more than $8.15 billion on preschool, topping the $8 billion mark for the first time. California alone spent more than $1.85 billion, which is over $1 billion more than Texas, which had the next largest investment in state-funded preschool. California's spending on its two programs amounts to nearly one-quarter of all state funding for preschool in the nation. Total state funding for preschool rose by $286 million, adjusted for inflation, a 3.6% increase in spending from 2016-2017. This increase is about 50% larger than last year's 2% increase. Table 6 reports state spending per child and in total, as well as changes in spending from the previous year.

State spending per child was $5,175. Though this is a nominal increase of $168 over last year, it is an $8 decrease when adjusting for inflation, continuing last year's downward trend in real spending. The inflation-adjusted decrease in state spending per child also suggests that states tend to prioritize enrollment expansion over quality.

State spending per child varied widely across the states, with the gap between the highest and lowest even larger than last year. At the high end, the District of Columbia spent $17,545 per child. New Jersey and Alaska also spent more than $10,000 per child. At the low end, North Dakota (in its first year of operation) spent only $777 per child. Nebraska and Kansas also spent less than $2,000 per child and five other states spent less than $3,000 per child (Mississippi, Florida, Massachusetts, Colorado, and South Carolina). This is many times more unequal than state spending on K–12 education.

Many states (including some of those with the lowest state spending per child), rely on federal and local sources to provide additional funds for their preschool programs. As stated above, 2014 federal PDG dollars helped support preschool in 18 states, contributing a total of almost $244 million, including $102 million that supported either new or enhanced seats in state-funded preschool. As this federal grant is ending in 2019, states need to plan to sustain funding through other means in order to continue serving the same number of children.

Some states provide for local education agencies to share preschool costs through a funding formula, as they do for K–12 education—and these states are more likely to provide salary parity for preschool teachers. Funding from all sources is a better indicator of the total resources available to support preschool (though not a better indicator of a state's financial commitment). Unfortunately, not all states can fully, or even partially, report spending on their programs from local and/or federal sources. As a result, the "all-reported" spending per child numbers in Table 6 underestimate total spending by an unknown amount, and meaningful comparisons across states are limited by differences in reporting.

Local and federal funds added more than $1.2 billion to state preschool during the 2017-2018 school year, including approximately $102 million, or 8%, from the 2014 federal PDG. Spending from all reported sources totaled more than $9.3 billion in 2017-2018, an all time high. All-reported funding increased by almost $380 million since the previous year, adjusted for inflation. Non-state funds reported include $504 million in required local funds, almost $245 million in non-required local funds, and $461 million in non-TANF federal funds (including 2014 PDG). All reported spending per child was $5,943, an inflation-adjusted increase of $28 from 2016-2017. Reported local and federal spending added more than $5,000 in Nebraska and Rhode Island and more than doubled the funding per child in Maryland, Oklahoma, Maine, Mississippi, and Nebraska.

FEDERAL PRESCHOOL DEVELOPMENT GRANTS (PDG)

Preschool Development Grants were competitive federal grants awarded to 18 states to (1) build the state's capacity to provide high-quality preschool or (2) to expand access to high-quality preschool for high-need communities. The PDG program was part of the Preschool for All initiative jointly administered by the Department of Education and the Department of Health and Human Services (HHS). In December 2014, 18 states were awarded federal PDG grants. These states received four years of funding and 2017-2018 was the third full school year during which PDG funding was utilized by states. The recent Every Student Succeeds Act moved PDG administration solely to HHS, and the purpose of PDG Birth through Five grants is to support planning rather than jointly fund direct services for children.

In 2017-2018, states used almost $244 million in federal PDG funding. In some states, all PDG funding was used to create new seats in state-funded preschool and/or enhance the quality of (including extending the length of the day) existing state-funded preschool seats. In other states, PDG funding supported enrollment of children in preschool programs outside of state-funded preschool, or in a combination of state preschool and other programs. PDG-funded seats were required to meet 12 quality standards including the provision of a full school day. Many of the required PDG standards align with NIEER's quality standards benchmarks.

In 2017-2018, 42% of PDG funding (approximately $102 million) was used to serve children in state-funded preschool (either through the creation of new seats or enhancing the quality of existing seats). We estimate that federal PDG supported almost 56,000 children in 2017-2018 through either new seats or quality enhancements. Approximately 35,000 of these children were served in state preschool programs. Figure 8 describes PDG funding and the enrollment it supported in each of the 18 states receiving federal PDG grants.

PDG is an example of an effective federal-state partnership that has helped states provide high-quality preschool to more children. Rhode Island and Alabama are two states that used PDG funding to substantially increase enrollment of 4-year-olds while maintaining high quality. And, using PDG funding, Nevada served 90% of children enrolled in state-funded preschool in school-day programs, up from just 40% the previous year. Yet PDG enrollment is set to sunset soon—the 2018-2019 school year is the last year it will support preschool enrollment, and it has not been renewed by the federal government. Of the 18 states with PDG funding, eight reported that they have a plan to sustain PDG funding using state or other sources; nine reported that they are working on a plan, and one reported that they did not have a plan. It remains to be seen how the loss of federal PDG funding will affect access to high quality preschool for children in low-income families.

FIGURE 8: FEDERAL PRESCHOOL DEVELOPMENT GRANT (PDG) ENROLLMENT AND SPENDING

	PDG-SUPPORTED ENROLLMENT					PDG SPENDING		
STATE	Total	Total new seats	Total enhanced seats	New seats in state pre-K	Enhanced seats in state pre-K	Total	Included in state preschool spending*	Plans to sustain funding?
Alabama	15,240	3,954	11,286	3,954	11,286	$18,723,405	$18,723,405	Yes
Arizona	2,872	2,872	0	0	0	$20,000,000	$0	In progress
Arkansas	2,872	1,363	1,509	0	1,509	$15,327,377	$3,758,389	In progress
Connecticut	740	439	301	0	301	$5,262,798	$2,778,620	In progress
Hawaii	259	259	0	0	0	$5,783,584	$0	Yes
Illinois	4,915	2,745	2,170	0	41	$20,986,434	$214,184	Yes
Louisiana	4,907	1,800	3,107	0	0	$9,558,060	$0	In progress
Maine	504	32	472	32	472	$4,069,851	$4,069,851	Yes
Maryland	4,272	1,571	2,701	1,571	2,701	$13,190,793	$13,190,793	Yes
Massachusetts	763	763	0	0	0	$15,000,000	$0	In progress
Montana	1,000	387	613	0	0	$9,958,741	$0	In progress
Nevada	3,197	1,201	1,996	0	1,996	$17,286,600	$7,908,600	In progress
New Jersey	1,929	1,280	649	960	643	$17,199,793	$13,060,968	Yes
New York	2,371	2,371	0	2,371	0	$25,000,000	$25,000,000	Yes
Rhode Island	543	543	0	543	0	$5,898,075	$5,898,075	Yes
Tennessee	5,643	240	5,403	120	4,077	$18,225,394	$1,947,875	In progress
Vermont	448	0	448	0	448	$4,713,681	$4,713,681	No
Virginia	3,450	1,441	2,009	0	2,009	$17,500,000	$1,158,812	In progress
TOTAL	**55,925**	**23,261**	**32,664**	**9,551**	**25,483**	**$243,684,585**	**$102,423,253**	

* Federal PDG funding is included in the total, or all-reported, spending numbers.

Note: Data come from the survey of state preschool administrators and states' PDG Annual Performance Reports. Where possible, PDG funding is reported for the 2017-2018 school year, but some states can only report information for the calendar year.

In some PDG states, NIEER's calculation of state spending per child can be distorted compared to other years by PDG funding. State spending is divided by total enrollment, which includes children supported entirely and/or partially by federal PDG funds. For PDG states, the all-reported spending per child may better represent the level of support in comparison to prior years (before PDG).

PROGRESS TOWARD PRESCHOOL FOR ALL

Four states stand out as leaders in providing universal access to preschool for 4-year-olds: The District of Columbia, Florida, Vermont, and Oklahoma. Each of these four states serve more than three quarters of the state's 4-year-olds in state-funded preschool, and approximately 85% of 4-year-olds across state-funded preschool, preschool special education, and Head Start.

However, that is where the similarities end.

In addition to ranking 1st in access for 4-year-olds, the District of Columbia also provides nearly universal access to preschool for 3-year-olds (ranking 1st in access for 3-year-olds too), serving all children in school-day programs. D.C. also ranks first in state spending per child ($17,545) and all-reported spending per child ($18,580), surpassing the next highest state by more than $4,000 per child. However, D.C. meets only 3 of NIEER's quality standard benchmarks, in large part because public charter schools have authority to set their own standards. More than 50% of children attend D.C. Public Pre-K in public charter schools. The consequences of this for quality are unclear, but it is cause for concern.

Like D.C., Vermont also provides nearly universal access for 3-year-olds, ranking 2nd. However, state-funding supports a part-day program with a minimum of 10 hours per week. Vermont spends $6,622 per child, though this increases to $7,941 when including local and federal funding. An unknown in Vermont is the extent to which most children's participation exceeds the minimum number of hours. The state meets 7 of NIEER's quality standards benchmarks.

Unlike D.C. and Vermont, state funding for preschool in Oklahoma and Florida is for 4-year-olds only. Oklahoma is one of the first states to commit to universal access to preschool for 4-year-olds, doing so in 1980. Nearly 90% of children in preschool attend school-day programs. Oklahoma spends only $3,644 per child but local and federal funding substantially increase this amount to $8,024 per child. Oklahoma meets 9 of NIEER's quality standards benchmarks and a rigorous evaluation has shown it to have positive impacts on children's kindergarten readiness.

Florida serves 4-year-olds with parents choosing either a school-year or summer program. Most children attend the part-day school year program. While Florida's program reaches more than three-quarters of 4-year-olds, resources are limited as the state spends only $2,177 per child with no reported additional local or federal preschool spending. It is therefore unsurprising that Florida meets only 2 of NIEER's quality standards benchmarks. While it is possible that for some children additional funding from the local schools, communities, and other sources enable programs to provide high quality services, it is worrisome that state funding is a small fraction of that in other states offering pre-K for all.

STATES ON THE MOVE

Despite the limited progress that characterizes the nation as a whole, another set of states stand out as "On the Move." These states do not yet provide universal access to 4-year-olds, but have committed to improving access, funding, and/or quality standards.

Alabama has increased enrollment by over 15,000 4-year-olds, or 26 percentage points, since 2002, while increasing standards and then maintaining high quality. The state more than quadrupled enrollment in the last five years, aided in part by a federal PDG grant as well as strong state leadership. Alabama spent $13 million more this year than last year on state preschool, further demonstrating a commitment to increasing access and quality. The state has a sustainability plan in place to maintain enrollment as the federal PDG grant runs out. Alabama is one of three states to meet all 10 of NIEER's quality standards benchmarks, and has conducted evaluations that indicate the program has substantive impacts on long-term achievement and school success.

California began offering Transitional Kindergarten (TK) during the 2012-2013 school year to children born between September 2nd and December 2nd who miss the kindergarten cut off. Enrollment in TK has increased steadily, exceeding 100,000 4-year-olds in 2017-2018. Combined with nearly 139,000 children in California's State Preschool Program, more than 15% of all children in state-funded preschool nationwide are in California. Moreover, the state's investment in preschool has increased—by more than $364 million in the last year, resulting in a more than $1,000 per child increase. California also appears to be moving towards improving program quality, which is greatly needed as the state currently meets just 4.3 of NIEER's quality standards benchmarks.

Illinois has made progress recently after years of stagnation due to budget problems in the state. The Illinois General Assembly appropriated an additional $50 million to the Early Childhood Block Grant which funds Preschool for All in the state. As a result, in 2017-2018, state spending for preschool increased by over $40 million. Illinois served an additional 3,000 children and spending per child increased by $380. Illinois met 8 of NIEER's quality standards benchmarks. Illinois still has a long way to go to reach its goal of serving all 3- and 4-year-olds, a goal originally slated for 2012, but it seems progress has restarted.

Maryland increased spending for the Maryland Prekindergarten Program by $16 million in 2017-2018 resulting in a $500 increase in spending per child. In 2014, the Prekindergarten Expansion Act added $4.3 million annually to increase access for children from families up to 300% FPL. The state has also benefited from a federal PDG award for $15 million per year. More recently, in 2018, the state passed legislation to sustain the federal PDG funding when it runs out. Maryland's Commission on Innovation and Excellence in Education (Kirwan Commission) is finalizing recommendations to expand access to free, full-day preschool to all 3- and 4-year-olds from families up to 300% FPL. Maryland met 7 of NIEER's quality standard benchmarks. Following the Kirwan Commission report recommendation could boost enrollment growth, which has stagnated in recent years.

Massachusetts substantially increased preschool access and funding this year. The state's Chapter 70 program, included in this report for the first time this year, served over 30,000 children in public school-based programs. Enrollment of 3-year-olds in the state increased by 12 percentage points (to 17%) and enrollment of 4-year-olds by 22 percentage points (to 30%). Spending on preschool increased by over $40 million, though average state spending per child declined by more than $1,000. The state's programs met an average of 6.2 of NIEER's quality standards benchmarks. Within the state, Boston is a leader in providing high-quality preschool and the mayor recently announced plans to provide $15 million to provide universal access to high-quality preschool for all 4-year-olds within the next five years.

Minnesota began its Voluntary Pre-Kindergarten (VPK) program in 2016-2017 serving 3,106 4-year-olds during its first year of operation. In 2017-2018, the state began the School Readiness Plus (SRP) program and districts could choose to operate either program. Between SRP and VPK (and the state's supplement to Head Start), enrollment in preschool increased this year by more than 3,000 children. In two years, Minnesota went from serving just 1% of 4-year-olds to 10%. Another 1,000 new seats are allocated for next year. Spending also increased by more than $19 million but spending per child declined slightly. Minnesota met 5.5 of NIEER's quality standards benchmarks. And while VPK teachers are not required to have a BA, they are required to have salary and benefit parity with public K–3 teachers of comparable qualifications.

Montana launched their first state-funded preschool initiative (Montana STARS Preschool Pilot) in 2017-2018, enrolling 306 children. The state spent $2.57 million, or $8,411 per child during the first year of operation and met 6 of NIEER's quality standards benchmarks. An additional 1,000 4-year-olds were enrolled in high-quality preschool in the state through their federal PDG grant. Montana has a long way to go to increase preschool access, spending, and quality, but early childhood education is finally moving forward.

Pennsylvania has four separate state-funded preschool initiatives that together serve 7% of 3-year-olds and 14% of 4-year-olds. Enrollment in preschool increased by 1,694 children, driven by increases for the state's largest, and highest quality program—Pre-K Counts. Spending for preschool increased by almost $31 million, also driven by Pre-K Counts. Before this year's progress, enrollment had been relatively flat for a decade. Pennsylvania met an average of 7 of NIEER's quality standards benchmarks.

Washington has the stated goal of serving all eligible children not served by Head Start in the Early Childhood Education and Assistance Program (ECEAP) by 2022-2023. The state was half-way there by 2016-2017 and served an additional 800 children this year. Though Washington still only serves only 9% of 4-year-olds and 5% of 3-year-olds, the state planned to serve an additional 1,000 children in 2018-2019. Much larger annual enrollment increases will be needed to meet the state's goal for 2022-2023. State spending increased this year by more than $14 million, resulting in a 7% increase in spending per child. Washington met 8 of NIEER's quality standards benchmarks.

TABLE 2: STATE PRESCHOOL ACCESS BY STATE

ACCESS FOR 4-YEAR-OLDS RANK	STATE	PERCENT OF CHILDREN ENROLLED IN STATE PREKINDERGARTEN (2017-2018)			NUMBER OF CHILDREN ENROLLED IN STATE PREKINDERGARTEN (2017-2018)		
		4-year-olds	3-year-olds	Total (3s and 4s)	4-year-olds	3-year-olds	Total (3s and 4s)
1	District of Columbia	85%	73%	79%	7,269	6,063	13,332
2	Florida	77%	0%	38%	173,645	0	173,645
3	Vermont	76%	62%	69%	4,609	3,840	8,449
4	Oklahoma	74%	0%	37%	39,807	0	39,807
5	Wisconsin	68%	1%	34%	46,238	499	46,736
6	West Virginia	67%	5%	36%	13,716	913	14,629
7	Iowa	65%	3%	34%	25,902	1,293	27,195
8	Georgia	61%	0%	30%	80,536	0	80,536
9	New York	51%	2%	26%	117,851	3,721	121,572
10	Texas	49%	8%	29%	198,917	32,568	231,485
11	South Carolina	46%	<1%	23%	27,253	190	27,443
12	Maine	42%	0%	21%	5,551	0	5,551
13	Maryland	38%	5%	21%	27,588	3,574	31,162
14	California	37%	11%	24%	184,816	57,043	241,859
15	Kansas	36%	0%	18%	14,022	0	14,022
16	Nebraska	33%	16%	24%	8,711	4,239	12,950
17	Arkansas	32%	19%	26%	12,261	7,237	19,498
18	Michigan	32%	0%	16%	37,325	0	37,325
19	New Mexico	31%	3%	17%	8,228	891	9,119
20	Louisiana	31%	0%	15%	18,911	0	18,911
21	Connecticut	30%	9%	19%	11,226	3,224	14,449
22	Massachusetts	30%	17%	24%	21,722	12,408	34,130
23	Kentucky	29%	10%	19%	15,910	5,360	21,270
24	New Jersey	28%	20%	24%	29,733	20,951	50,684
25	Alabama	28%	0%	14%	16,051	0	16,051
26	Illinois	27%	22%	24%	41,622	33,318	74,940
27	North Carolina	23%	0%	12%	28,385	0	28,385
28	Colorado	23%	8%	16%	15,324	5,713	21,037
29	Tennessee	22%	<1%	11%	18,024	330	18,354
30	Virginia	18%	0%	9%	17,959	0	17,959
31	Pennsylvania	14%	7%	10%	19,726	9,984	29,710
32	Oregon	12%	8%	10%	5,848	3,616	9,464
33	Ohio	11%	1%	6%	16,176	1,737	17,913
34	Rhode Island	10%	0%	5%	1,080	0	1,080
35	Minnesota	10%	1%	5%	6,964	708	7,672
36	North Dakota	9%	0%	5%	965	0	965
37	Washington	9%	5%	7%	8,019	4,472	12,491
38	Delaware	5%	2%	4%	586	259	845
39	Nevada	5%	1%	3%	1,870	232	2,102
40	Mississippi	5%	0%	2%	1,840	0	1,840
41	Arizona	4%	2%	3%	3,323	1,933	5,256
42	Alaska	3%	0%	1%	315	0	315
43	Missouri	2%	1%	2%	1,666	712	2,378
44	Montana	2%	<1%	1%	265	14	279
45	Hawaii	2%	0%	1%	373	0	373
No Program	Idaho	0%	0%	0%	0	0	0
No Program	Indiana	0%	0%	0%	0	0	0
No Program	New Hampshire	0%	0%	0%	0	0	0
No Program	South Dakota	0%	0%	0%	0	0	0
No Program	Utah	0%	0%	0%	0	0	0
No Program	Wyoming	0%	0%	0%	0	0	0
	50 states + DC	**33%**	**6%**	**20%**	**1,338,127**	**227,041**	**1,565,168***
	Guam	2%	0%	1%	71	0	71

For details about how these figures were calculated, see the Methodology section and Roadmap to the State Profile Pages.

*Nationwide, an additional 12,593 children of other ages were enrolled in state prekindergarten, for a total of 1,577,761 children.

TABLE 3: CHANGE IN PRESCHOOL ENROLLMENT OVER TIME

	ENROLLMENT CHANGES FROM 2001-2002 TO 2017-2018				ENROLLMENT CHANGES FROM 2016-2017 TO 2017-2018			
	Change in 3-year-olds		Change in 4-year-olds		Change in 3-year-olds		Change in 4-year-olds	
STATE	Number	% served	Number	% served	Number	% served	Number	% served
Alabama	0	0.0%	15,295	26.4%	0	0.0%	2,019	3.7%
Alaska*	0	0.0%	315	2.9%	0	0.0%	-43	-0.6%
Arizona	1,933	2.2%	-954	-1.8%	90	0.1%	-119	-0.1%
Arkansas	6,295	16.3%	10,037	26.3%	211	0.4%	167	1.0%
California	46,119	9.3%	140,282	28.6%	2,589	0.5%	3,704	0.6%
Colorado	4,983	7.2%	7,004	8.9%	123	0.2%	-290	-0.2%
Connecticut*	1,688	5.3%	6,809	20.4%	159	0.4%	-333	-0.3%
Delaware	259	2.3%	-257	-2.6%	259	2.3%	-245	-2.1%
District of Columbia	4,938	53.2%	4,258	41.0%	317	7.2%	168	-2.9%
Florida	0	0.0%	173,645	76.7%	0	0.0%	-607	-0.6%
Georgia	0	0.0%	16,923	7.4%	0	0.0%	-338	0.8%
Hawaii	0	0.0%	373	2.0%	0	0.0%	-3	0.0%
Idaho	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Illinois	19,220	13.6%	2,720	5.6%	2,020	1.3%	1,161	1.1%
Indiana	0	0.0%	0	0.0%	0	0.0%	-1,792	-2.1%
Iowa	782	1.9%	24,346	60.7%	97	0.2%	1,025	2.0%
Kansas	0	0.0%	11,792	30.0%	0	0.0%	6,011	15.4%
Kentucky	488	0.4%	3,093	4.8%	57	0.1%	1,778	2.8%
Louisiana	0	0.0%	11,392	19.1%	0	0.0%	-143	-0.2%
Maine	0	0.0%	4,111	32.3%	0	0.0%	409	3.5%
Maryland	2,166	2.9%	9,214	12.4%	0	0.0%	92	0.4%
Massachusetts	2,976	5.3%	12,290	18.3%	8,538	11.8%	15,787	21.8%
Michigan	0	0.0%	10,848	13.2%	0	0.0%	-1,046	-1.1%
Minnesota*	-107	-0.2%	5,694	7.9%	-4	0.0%	3,073	4.2%
Mississippi	0	0.0%	1,840	4.9%	0	0.0%	530	1.5%
Missouri	-1,834	-2.5%	-2,020	-2.7%	-89	-0.1%	-179	-0.2%
Montana	14	0.1%	265	2.1%	14	0.1%	265	2.1%
Nebraska	4,115	15.3%	8,355	31.5%	389	1.1%	375	1.4%
Nevada	121	0.2%	1,549	3.9%	42	0.1%	204	0.5%
New Hampshire	0	0.0%	0	0.0%	0	0.0%	0	0.0%
New Jersey	8,166	8.6%	5,852	7.7%	-752	-0.8%	-1,934	-1.8%
New Mexico	421	1.6%	7,858	29.9%	-201	-0.7%	-1,059	-4.1%
New York	-2,114	-0.7%	54,352	26.5%	274	0.1%	-1,573	-0.6%
North Carolina	0	0.0%	27,145	22.2%	0	0.0%	1,366	1.0%
North Dakota	0	0.0%	965	9.3%	0	0.0%	-13	-0.0%
Ohio	-7,977	-5.2%	2,291	2.5%	1,361	1.0%	610	0.3%
Oklahoma	0	0.0%	13,928	18.8%	0	0.0%	503	1.1%
Oregon*	2,507	5.1%	3,259	6.6%	2	-0.1%	19	0.0%
Pennsylvania*	9,984	6.9%	17,176	12.1%	667	0.4%	882	0.6%
Rhode Island	0	0.0%	1,080	10.0%	0	0.0%	72	1.0%
South Carolina	-160	-0.4%	11,603	16.9%	190	0.3%	3,174	5.7%
South Dakota	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Tennessee	-512	-0.7%	16,266	19.7%	-470	-0.6%	191	0.4%
Texas	12,827	1.9%	71,334	10.2%	4,980	1.1%	2,391	0.0%
Utah	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Vermont	3,471	56.3%	3,989	67.3%	237	1.9%	-87	0.8%
Virginia	0	0.0%	12,081	11.3%	0	0.0%	-64	0.1%
Washington	3,323	3.4%	3,234	2.7%	362	0.3%	438	0.4%
West Virginia	-855	-4.1%	8,631	42.9%	-161	-0.6%	323	2.4%
Wisconsin*	-189	-0.3%	32,734	48.9%	-10	0.0%	-3,043	-3.7%
Wyoming	0	0.0%	0	0.0%	0	0.0%	0	0.0%
United States	**123,047**	**3.0%**	**772,997**	**19.1%**	**21,292**	**0.5%**	**33,827**	**0.8%**
Guam	0	0.0%	71	2.2%	0	0.0%	0	0.0%

* At least one program in these states did not break down total enrollment figures into specific numbers of 3- and 4-year-olds served. As a result, the figures in the table are estimates.

TABLE 4: 2017-2018 ENROLLMENT OF 3- AND 4-YEAR-OLDS IN STATE PRESCHOOL, PRESCHOOL SPECIAL EDUCATION, AND FEDERAL AND STATE HEAD START

	PRE-K + PRE-K SPECIAL EDUCATION				PRE-K + PRE-K SPECIAL EDUCATION + HEAD START††			
	3-year-olds		4-year-olds		3-year-olds		4-year-olds	
STATE	Number enrolled	% of state population	Number enrolled	% of state population	Number enrolled	% of state population	Number enrolled	% of state population
Alabama†	875	1.5%	16,690	28.7%	7,047	11.9%	21,416	36.9%
Alaska*†	409	3.8%	925	8.6%	1,560	14.6%	2,202	20.5%
Arizona	5,108	5.8%	8,064	9.1%	10,083	11.4%	16,903	19.1%
Arkansas	8,995	23.5%	15,709	41.5%	13,203	34.5%	18,971	50.1%
California	72,920	14.7%	198,005	39.8%	109,572	22.0%	234,498	47.1%
Colorado	8,698	12.9%	19,202	28.7%	12,172	18.0%	23,926	35.7%
Connecticut*†	5,130	13.8%	13,359	35.6%	7,198	19.3%	15,281	40.7%
Delaware	866	7.8%	1,431	13.1%	1,702	15.4%	2,259	20.6%
District of Columbia†	6,063	73.2%	7,269	85.0%	6,063	73.2%	7,269	85.0%
Florida*	6,597	2.9%	173,645	76.7%	21,005	9.2%	192,125	84.9%
Georgia†	2,864	2.2%	82,742	62.5%	14,767	11.1%	85,894	64.9%
Hawaii	549	3.0%	1,124	6.1%	1,544	8.5%	2,456	13.3%
Idaho	688	3.0%	1,096	4.6%	1,746	7.5%	2,980	12.6%
Illinois†	34,217	22.2%	46,051	30.0%	45,885	29.8%	59,261	38.6%
Indiana	3,845	4.5%	5,236	6.1%	9,189	10.9%	11,587	13.6%
Iowa†	2,097	5.2%	26,652	66.7%	4,501	11.2%	27,707	69.3%
Kansas	2,473	6.3%	17,524	44.8%	5,014	12.9%	20,382	52.1%
Kentucky†	5,360	9.6%	15,910	28.7%	11,233	20.2%	22,195	40.0%
Louisiana*	622	1.0%	19,565	32.0%	11,180	17.9%	27,144	44.5%
Maine†	496	3.8%	5,939	45.0%	1,497	11.5%	6,150	46.6%
Maryland	4,283	5.8%	29,578	40.3%	8,431	11.5%	33,158	45.2%
Massachusetts†	12,408	17.2%	21,722	29.9%	16,275	22.5%	24,582	33.8%
Michigan†	3,867	3.3%	39,854	34.5%	15,930	13.7%	46,145	39.9%
Minnesota**	3,469	4.8%	11,859	16.6%	8,199	11.4%	16,475	23.1%
Mississippi†	519	1.4%	3,365	9.0%	10,550	27.9%	13,494	35.9%
Missouri	3,765	5.0%	7,358	9.8%	9,754	12.9%	12,706	16.9%
Montana*	102	0.8%	532	4.2%	1,809	14.3%	2,682	21.4%
Nebraska†	4,239	15.8%	8,711	33.0%	5,150	19.2%	9,610	36.4%
Nevada	2,006	5.4%	4,616	12.3%	3,301	8.9%	5,767	15.4%
New Hampshire	852	6.6%	1,141	8.4%	1,380	10.8%	1,790	13.3%
New Jersey†	26,043	24.7%	36,561	34.5%	29,379	27.8%	39,555	37.4%
New Mexico	1,986	7.6%	9,155	34.8%	5,844	22.4%	13,311	50.6%
New York†	19,001	8.2%	127,086	55.0%	37,790	16.4%	138,161	59.8%
North Carolina†	3,472	2.8%	32,442	26.6%	10,927	8.9%	37,673	30.9%
North Dakota*	378	3.5%	1,389	13.4%	1,358	12.7%	2,650	25.5%
Ohio	6,349	4.5%	22,514	15.9%	20,237	14.3%	37,841	26.8%
Oklahoma	693	1.3%	39,807	74.4%	8,767	16.5%	45,780	85.6%
Oregon*	5,752	12.1%	8,385	17.7%	8,275	17.4%	12,057	25.4%
Pennsylvania*	17,323	12.1%	29,711	20.7%	27,996	19.5%	43,376	30.2%
Rhode Island	667	6.1%	1,834	17.0%	1,592	14.6%	2,929	27.1%
South Carolina	1,383	2.3%	27,370	46.5%	8,015	13.6%	31,332	53.2%
South Dakota	371	3.0%	698	5.7%	2,115	16.9%	2,684	21.9%
Tennessee†	2,285	2.8%	19,806	24.2%	8,851	10.8%	24,710	30.2%
Texas	38,466	9.4%	203,738	50.6%	68,046	16.7%	235,328	58.4%
Utah	2,333	4.6%	3,511	6.8%	4,420	8.7%	6,352	12.3%
Vermont	3,840	61.6%	4,609	75.9%	4,253	68.2%	5,161	85.0%
Virginia*	3,589	3.5%	21,630	21.2%	8,931	8.7%	28,082	27.5%
Washington	7,445	8.1%	11,965	13.0%	11,947	13.0%	18,095	19.7%
West Virginia†	913	4.5%	13,716	67.1%	2,680	13.3%	14,067	68.8%
Wisconsin**	2,921	4.3%	46,238	68.1%	9,290	13.7%	50,907	75.0%
Wyoming	847	11.5%	1,120	15.1%	1,483	20.1%	1,897	25.6%
United States	**350,438**	**8.7%**	**1,468,155**	**36.7%**	**659,137**	**16.5%**	**1,758,960**	**44.0%**
Guam	39	1.2%	90	2.8%	177	5.5%	486	15.0%

* These states serve special education children in their state pre-K programs but were not able to provide the number of children for at least one of their programs. Estimates were used based on the average percent of special education students in state pre-K across all programs and enrollment numbers for each program.

** These states serve special education children in their state-funded Head Start pre-K programs but were not able to provide the number of children. Estimates were used based on the percent of children with IEPs in Head Start in the state as reported by the PIR.

† At least one program in these states was able to report the number of children enrolled in state pre-K and Head Start. Information was used to estimate an unduplicated count of Head Start enrollment.

†† Totals can overestimate public enrollment in state pre-K, pre-K special education, and Head Start as some or all of Head Start children may be served in a state's pre-K program and many states could not report this information.

For details about how these figures were calculated, see the Methodology section and the Roadmap to the State Profile Pages.

TABLE 5: 2017-2018 STATE PRESCHOOL QUALITY STANDARDS

STATE/ PROGRAM	Early learning & development standards	Curriculum supports	Teacher has BA	Specialized training in pre-K	Assistant teacher has CDA or equiv.	Staff professional development	Class size 20 or lower	Staff-child ratio 1:10 or better	Vision, hearing, & health screening & referral	Continuous quality improvement system	**New Quality Standards Checklist Sum 2017-2018**
Alabama	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	**10**
Alaska	✔	✔			✔						**3**
Arizona	✔	✔								✔	**3**
Arkansas	✔	✔		✔	✔		✔	✔	✔	✔	**8**
California CSPP	✔	✔		✔				✔	✔	✔	**6**
California TK		✔	✔								**2**
Colorado	✔	✔		✔			✔	✔			**5**
Connecticut CDCC	✔	✔		✔			✔	✔			**5**
Connecticut SR	✔	✔		✔			✔	✔			**5**
Connecticut Smart Start	✔	✔	✔	✔			✔	✔			**6**
Delaware	✔	✔		✔			✔	✔	✔	✔	**7**
District of Columbia		✔							✔	✔	**3**
Florida	✔						✔				**2**
Georgia	✔	✔	✔	✔	✔	✔			✔	✔	**8**
Hawaii	✔	✔	✔				✔	✔	✔	✔	**7**
Illinois	✔	✔	✔	✔			✔	✔	✔	✔	**8**
Iowa Shared Visions	✔	✔		✔			✔	✔	✔		**6**
Iowa SWVPP	✔	✔	✔	✔			✔	✔	✔	✔	**8**
Kansas Preschool Pilot	✔	✔	✔					✔			**4**
Kansas State Pre-K	✔	✔	✔					✔			**4**
Kentucky	✔	✔	✔	✔			✔	✔	✔		**7**
Louisiana 8(g)	✔	✔	✔	✔			✔	✔		✔	**7**
Louisiana LA 4	✔	✔	✔	✔			✔	✔	✔	✔	**8**
Louisiana NSECD	✔	✔	✔	✔	✔		✔	✔	✔	✔	**9**
Maine	✔	✔	✔	✔	✔		✔	✔	✔	✔	**9**
Maryland	✔	✔	✔	✔				✔	✔	✔	**7**
Massachusetts UPK	✔	✔		✔			✔	✔	✔	✔	**7**
Massachusetts Chapter 70	✔	✔	✔	✔					✔	✔	**6**
Michigan	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	**10**
Minnesota HdSt	✔	✔		✔	✔	✔	✔	✔	✔		**8**
Minnesota VPK/SRP	✔	✔					✔	✔	✔		**5**
Mississippi	✔	✔	✔	✔	✔		✔	✔	✔	✔	**9**
Missouri	✔	✔	✔	✔			✔	✔	✔	✔	**8**
Montana		✔	✔	✔			✔	✔		✔	**6**
Nebraska	✔	✔	✔	✔	✔		✔	✔		✔	**8**
Nevada	✔	✔	✔	✔			✔	✔			**6**
New Jersey Abbott	✔	✔	✔	✔			✔	✔	✔	✔	**8**
New Jersey ECPA	✔	✔	✔	✔			✔	✔	✔	✔	**8**
New Jersey ELLI	✔	✔	✔	✔			✔	✔	✔	✔	**8**
New Mexico	✔	✔		✔	✔	✔	✔	✔	✔	✔	**9**
New York	✔	✔	✔	✔			✔	✔	✔		**7**
North Carolina	✔	✔	✔	✔			✔	✔	✔	✔	**8**
North Dakota	✔		✔								**2**
Ohio	✔	✔		✔					✔	✔	**5**
Oklahoma	✔	✔	✔	✔		✔	✔	✔	✔	✔	**9**
Oregon HdSt	✔	✔		✔	✔	✔	✔	✔	✔		**8**
Oregon Preschool Promise	✔	✔		✔			✔	✔			**5**
Pennsylvania RTL	✔			✔			✔	✔			**4**
Pennsylvania HSSAP	✔			✔	✔		✔	✔	✔		**6**
Pennsylvania K4 & SBPK	✔		✔						✔		**3**
Pennsylvania PKC	✔	✔	✔	✔			✔	✔	✔	✔	**8**
Rhode Island	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	**10**
South Carolina	✔	✔		✔		✔	✔	✔		✔	**7**
Tennessee	✔	✔	✔	✔			✔	✔	✔		**7**
Texas	✔		✔	✔					✔		**4**
Vermont	✔	✔		✔			✔	✔	✔	✔	**7**
Virginia	✔	✔		✔			✔	✔	✔		**6**
Washington	✔	✔		✔	✔		✔	✔	✔	✔	**8**
West Virginia	✔	✔	✔	✔	✔		✔	✔	✔	✔	**9**
Wisconsin 4K		✔	✔	✔							**3**
Wisconsin HdSt	✔	✔		✔	✔		✔	✔	✔		**7**
TOTAL	**57**	**55**	**36**	**50**	**17**	**9**	**46**	**49**	**42**	**35**	
Guam	✔	✔		✔			✔	✔		✔	**6**

TABLE 6: PRE-K RESOURCES PER CHILD ENROLLED BY STATE

STATE	Resource rank based on state spending	State $ per child enrolled in preschool	Change in state per child spending from 2016-2017 to 2017-2018 Adjusted dollars	Total state preschool spending in 2017-2018	Change in total state spending from 2016-2017 to 2017-2018 Adjusted dollars	State reported non-state funds	All reported $ per child enrolled in preschool
District of Columbia	1	$17,545	-$35	$236,712,885	$6,821,142	Yes	$18,580
New Jersey	2	$13,018	$356	$659,789,000	-$15,986,421	Yes	$13,275
Alaska	3	$10,159	$4,380	$3,200,000	$1,131,301	No	$10,159
Oregon	4	$9,658	-$203	$91,524,958	-$1,717,995	No	$9,658
Washington	5	$8,854	$332	$110,594,841	$10,960,166	No	$8,854
Montana	6	$8,411	$8,411	$2,573,914	$2,573,914	Yes	$8,496
Pennsylvania	7	$7,865	$361	$240,085,217	$23,741,761	No	$7,865
California	8	$7,655	$1,113	$1,854,832,577	$313,106,275	Yes	$7,835
Connecticut	9	$7,612	-$473	$111,027,561	-$8,455,029	Yes	$9,727
Delaware	10	$7,277	-$377	$6,149,300	-$211,224	No	$7,277
Hawaii	11	$6,964	$87	$2,597,734	$11,861	No	$6,964
Vermont*	12	$6,622	$274	$58,370,955	$1,601,891	Yes	$7,941
New York	13	$6,553	-$111	$796,699,144	-$22,195,309	Yes	$6,801
Michigan	14	$6,534	-$40	$243,900,000	-$8,377,783	No	$6,534
West Virginia	15	$6,508	-$240	$98,278,800	-$3,095,056	Yes	$9,640
Minnesota	16	$6,293	-$219	$48,282,734	$18,304,678	Yes	$7,333
New Mexico	17	$5,845	$632	$53,302,160	-$804,649	No	$5,845
Rhode Island	18	$5,778	$494	$6,240,000	$913,563	Yes	$11,239
Arkansas	19	$5,529	-$131	$114,000,000	-$812,767	Yes	$9,070
North Carolina	20	$5,428	-$62	$154,072,222	$5,726,682	Yes	$8,505
Alabama	21	$4,826	$74	$77,462,050	$10,785,777	Yes	$7,491
Louisiana	22	$4,739	-$129	$89,613,418	-$3,131,792	Yes	$4,830
Tennessee	23	$4,635	-$149	$85,062,422	-$4,098,484	Yes	$6,022
Illinois	24	$4,606	$235	$346,097,978	$31,330,320	Yes	$5,219
Missouri	25	$4,555	$762	$10,832,676	$795,572	No	$4,555
Kentucky	26	$4,514	-$363	$96,011,951	$1,226,477	Yes	$8,412
Georgia	27	$4,411	-$52	$355,281,106	-$5,665,217	No	$4,411
Arizona	28	$4,054	$341	$21,307,301	$1,682,864	No	$4,054
Nevada	29	$4,025	$1,349	$8,738,875	$3,733,788	Yes	$7,668
Ohio	30	$4,001	-$136	$71,672,000	$5,713,617	No	$4,001
Maryland	31	$3,963	$386	$124,726,542	$12,481,963	Yes	$8,166
Wisconsin**	32	$3,920	$22	$191,269,229	-$11,322,655	Yes	$6,077
Virginia	33	$3,848	-$129	$69,097,643	-$2,579,233	Yes	$6,089
Oklahoma	34	$3,644	-$158	$145,038,018	-$4,395,047	Yes	$8,024
Texas	35	$3,559	-$419	$823,908,971	-$67,736,584	Yes	$3,612
Maine	36	$3,420	-$150	$19,316,515	-$104,126	Yes	$7,216
Iowa***	37	$3,354	-$96	$86,997,650	$327,735	Yes	$3,505
South Carolina*	38	$2,819	-$253	$77,572,655	$3,603,184	Yes	$3,071
Colorado	39	$2,535	-$332	$54,374,180	-$7,633,514	Yes	$4,240
Massachusetts	40	$2,195	-$1,208	$82,931,298	$39,867,097	Yes	$2,929
Florida	41	$2,177	-$184	$379,969,502	-$31,389,754	No	$2,177
Mississippi	42	$2,161	-$997	$3,976,431	-$160,966	Yes	$5,774
Nebraska	43	$1,779	-$235	$24,796,908	-$1,118,482	Yes	$6,899
Kansas	44	$1,332	-$938	$18,682,109	$494,628	No	$1,332
North Dakota	45	$777	$777	$750,000	$750,000	No	$777
Idaho	No Program	$0	$0	$0	$0	NA	$0
Indiana	No Program	$0	-$5,818	$0	-$10,425,638	NA	$0
New Hampshire	No Program	$0	$0	$0	$0	NA	$0
South Dakota	No Program	$0	$0	$0	$0	NA	$0
Utah	No Program	$0	$0	$0	$0	NA	$0
Wyoming	No Program	$0	$0	$0	$0	NA	$0
50 states + DC		**$5,175**	**-$8**	**$8,157,721,430**	**$286,268,527**		**$5,943**
Guam		$5,112	-$99	$362,973	-$7,014	No	$5,112

For details about how these figures were calculated, see the Methodology section and Roadmap to the State Profile Pages.

*Vermont could not break out the state, local, and federal spending (other PDG) from the total amount reported. Therefore, the portions of total spending attributable to state, local, and federal sources were estimated based on K-12 spending.

** Wisconsin 4K could not break out the state and local spending from the total amount reported. Therefore, the portions of total spending attributable to state and local sources were estimated based on information from 2016-2017..

***1,510 5-year-olds and children with instructional IEPs were served in Iowas' SWVPP program but were funded by sources not reported by the state. Similar to prior years, these children were removed from the per-child spending calculations.

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