



**natural start**  
alliance



## Nature Preschools and Forest Kindergartens 2017 NATIONAL SURVEY

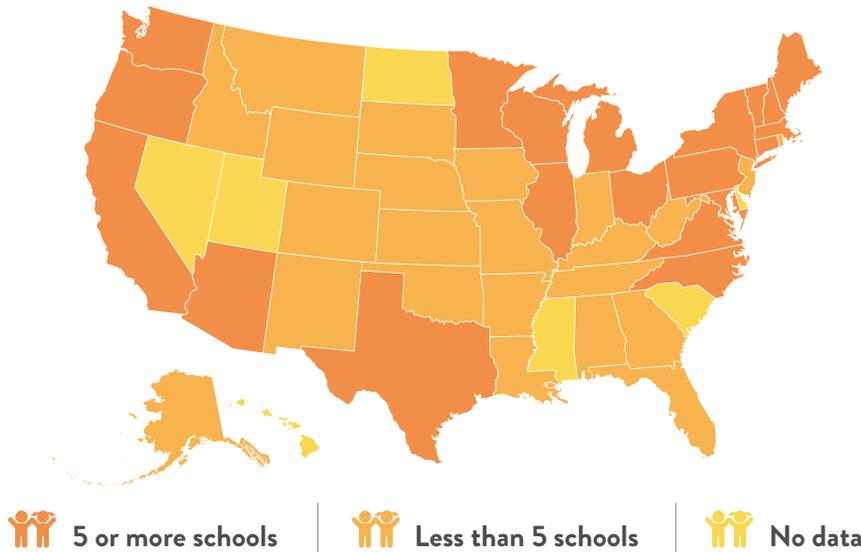
Nature-based preschools and kindergartens continue to rise in popularity in the United States. A national survey of nature-based early childhood educators conducted in 2017 identified more than 250 nature preschools and forest kindergartens operating across the country. The programs serve approximately 10,000 children every year, and eight out of ten programs report that they started a waiting list in the previous twelve months. However, the survey also suggests that the nature-based programs do not reflect the cultural and linguistic diversity of our nation.

The survey was jointly conducted by the Natural Start Alliance, the Eastern Region Association of Forest and Nature Schools, the Northern Illinois Nature Preschools Association, and the Washington Area Nature Preschools Association.

Suggested citation: North American Association for Environmental Education (NAAEE). (2017). *Nature preschools and forest kindergartens: 2017 national survey*. Washington, DC: NAAEE.

*Washington Nature Preschool Association*

# Nature preschools and forest kindergartens in the United States



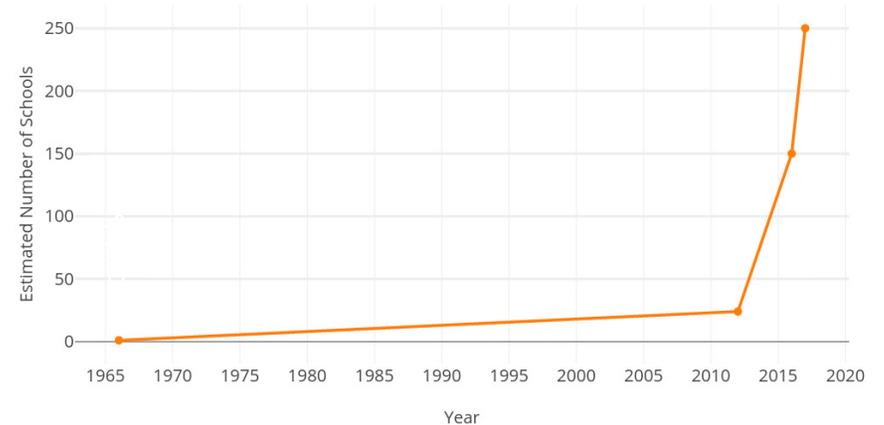
An increasing number of educators, parents, and researchers across the United States are planning, running, and learning from early childhood education programs that put nature at the heart of the curriculum.

Nature preschools and forest kindergartens have the same child development goals as more traditional schools, but are committed to accomplishing those goals through experiences in nature. They also have an added goal of helping children develop a sense of wonder and care for the natural world.

These programs operate in a variety of settings, from traditional schools and early childhood learning centers to nature centers and botanic gardens. Some take place entirely outdoors in urban parks and other green spaces. See the sidebar on page 6 for a definition of nature preschools.

Nature preschools and forest kindergartens provide hands-on, experiential learning; significant time spent playing and learning outdoors; and all the developmental benefits of spending time in nature. Play and learning in nature helps promote children's physical, cognitive, and social-emotional development, and natural outdoor classrooms provide sensory-rich, ever-changing spaces ripe for exploration and discovery.

## Estimated number of nature-based preschools and forest kindergartens in the United States by year<sup>1</sup>



Recent research confirms the benefits of environmental education for learners in K-12 settings, including improving academic performance, enhancing critical thinking skills, and developing personal growth, life-building skills, confidence, autonomy, and leadership<sup>2</sup>. In the pre-K years, environmental education is focused on play and learning in nature to build a foundation for environmental literacy.

**As of 2017, at least 250 nature preschools and forest kindergartens operate in 43 states.** Many are concentrated in the Pacific Northwest and California, the Upper Midwest, the Mid-Atlantic, and New England. Although previous national surveys employed different methodologies, the data suggests that the number and rate of growth of nature preschools and forest kindergartens in the United States have greatly increased in the last five years.

<sup>1</sup> Data based upon Bailie, P.E. (2012). *Connecting children to nature: A multiple case study of nature center preschools*. Lincoln, NE: University of Nebraska-Lincoln Theses, Student Research, and Creative Activity; Merrick, C. (2016). *Nature-based preschools take the national stage*. Washington, DC: North American Association for Environmental Education. Available at <http://naturalstart.org/feature-stories/nature-based-preschools-take-national-stage>

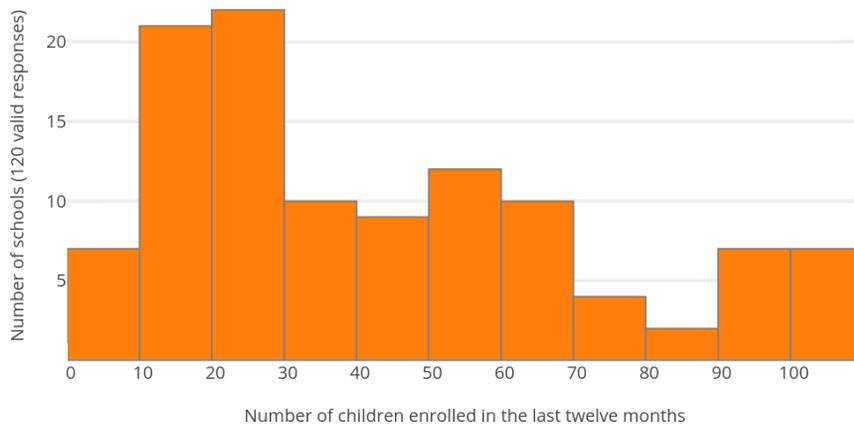
<sup>2</sup> North American Association for Environmental Education (NAAEE). (2017). *Stanford analysis reveals wide array of benefits from environmental education*. Washington, DC: NAAEE. Available at [https://cdn.naaee.org/sites/default/files/eeworks/files/k-12\\_student\\_key\\_findings.pdf](https://cdn.naaee.org/sites/default/files/eeworks/files/k-12_student_key_findings.pdf)

# Students



The classroom sizes of nature preschools and forest kindergartens vary significantly. Some schools serve fewer than ten students over the course of a full year, and some serve more than 100. The median reported number of students served across all schools is 39. This suggests that approximately 10,000 children enroll in a nature preschool or forest kindergarten program every year in the United States. Eight out of ten schools reported that they had to start a waiting list in the previous twelve months.

## Number of children enrolled in nature preschool or kindergarten programs in total



The nature-based programs, however, do not fully reflect the diversity of our communities in the United States. For example, only 3% of students in nature preschools and forest kindergartens were reported to be African American and 7% to be Hispanic, while the latest U.S. Census indicated that 15% of all American children under five were African American and 25% were Hispanic.

## Children enrolled in nature preschools or kindergarten programs by race, ethnicity, or origin (some children belong to more than one category)

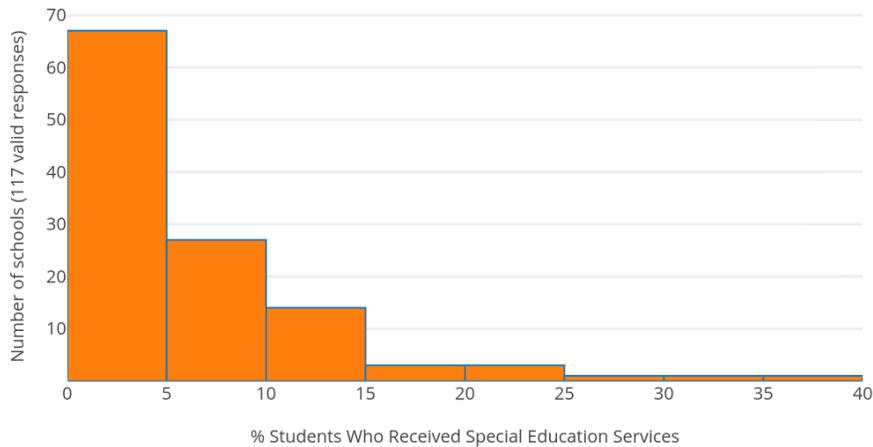
	Average (mean) reported percentage
White	83%
Hispanic, Latino, or Spanish Origin	7%
Asian	6%
Black or African American	3%
Middle Eastern or North African	1%
American Indian or Alaska Native	1%
Native Hawaiian or Other Pacific Islander	<1%
Other Race, Ethnicity, or Origin	1%

## Students, cont.

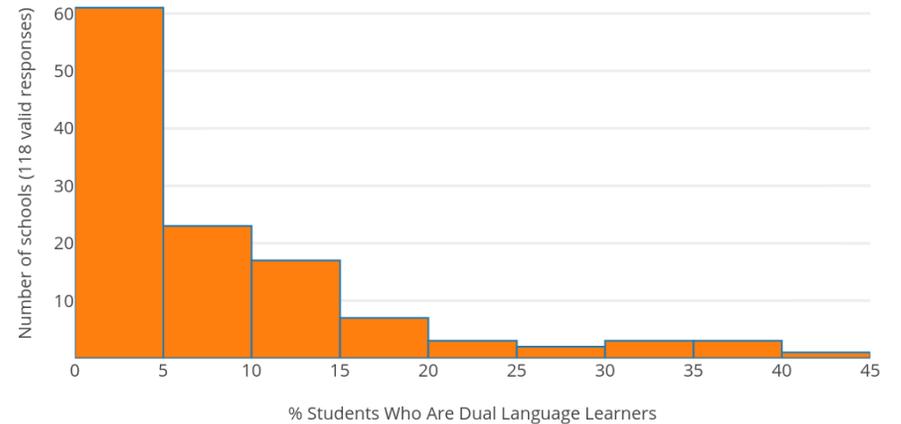


The majority of schools reported having less than 5% of students that received special education services or were dual language learners. In the American education system as a whole, 13% of students receive special education services<sup>3</sup>, and almost a fifth of all American children live in a household where English is not the primary language.<sup>4</sup>

**Percentage of the total children enrolled in nature preschool or kindergarten programs that receive special education services**



**Percentage of the total children enrolled in nature preschool or kindergarten programs that are dual language learners**



<sup>3</sup> U.S. Department of Education. (2017). *The condition of education 2017*. Report number: NCES 2017-144. Washington, DC: U.S. Department of Education

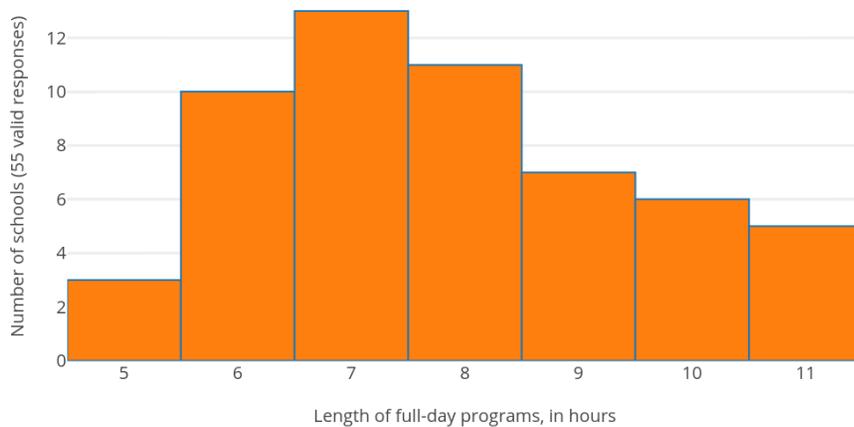
<sup>4</sup> U.S. Census Bureau. (2004). *Children and the households they live in: 2000*. Report Number: CENSR-14. Washington, DC: U.S. Census Bureau

# Programs



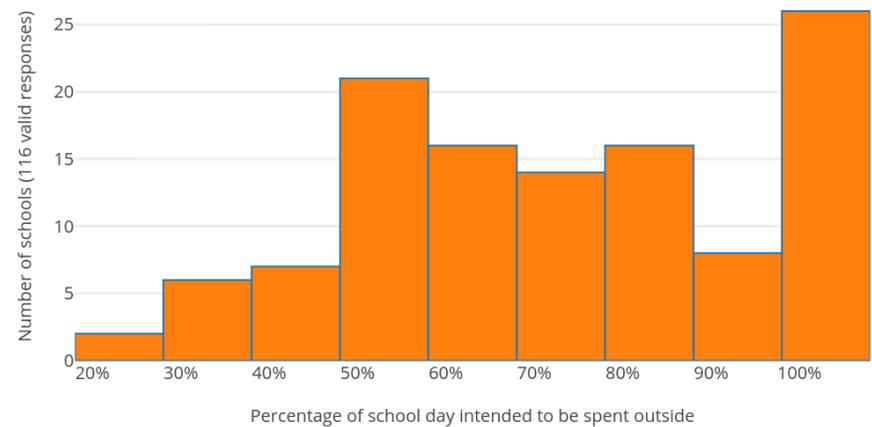
The great majority of schools (84%) reported offering half-day programs. Nearly half of schools (46%) reported offering full-day programs. The length of full-day programs ranged from five to eleven hours, with a median reported length of eight hours.

## Length in hours of full-day programs



The percentage of the school day intended to be spent outside varies widely from program to program, from 25% to 100% (in other words, from a quarter of the school day to the entire school day). On average across all programs and all times of year, students and teachers spend about three quarters of each school day outside.

## Percentage of the school day intended to be spent outside





## What is a Nature Preschool?

The Natural Start Alliance defines nature preschools as schools that use nature as the organizing principle for their programs. Nature preschools require their teaching staff to have skills and experience in both early childhood education and environmental education.



**A nature preschool program uses the natural world to support goals that address both child development** (in all domains, including cognitive, physical, social, emotional, aesthetic, and spiritual) **and the development of an ecological identity or environmental ethic.** Nature preschools often allow the children’s interests and curiosity to guide the day’s activities and inform the curriculum. A significant portion of the school day in nature preschools is spent outside. Forest kindergartens are a type of nature preschool that takes place entirely outdoors.

## Programs, cont.



Most nature preschools and forest kindergartens use a self-developed or emergent curriculum, which is consistent with a general preference for child-directed and open-ended activities in many nature-based early childhood education settings. For example, the discovery of a plant or animal that elicits children’s curiosity on a daily nature walk becomes an opportunity for further inquiry, observation, or care for that plant’s or animal’s needs or habitat on following days.

### Percentage of nature preschool or kindergarten programs using each kind of curriculum (some programs use more than one kind)

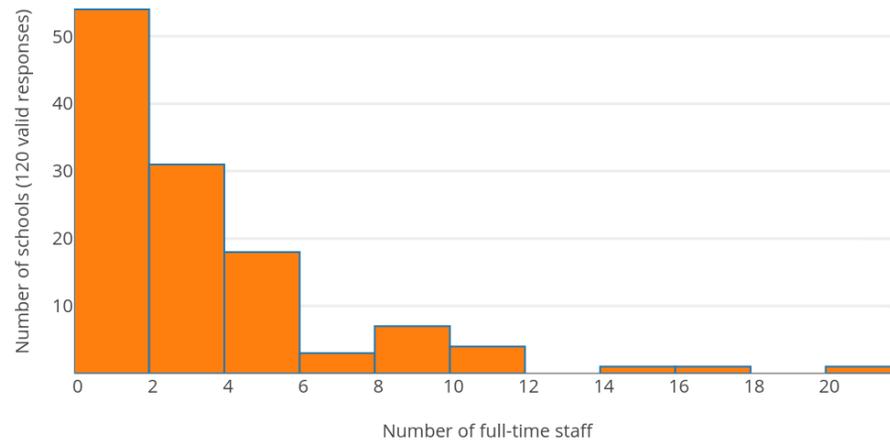
Self-developed curriculum or framework	73.1%
Established curriculum with adaptations for local school setting	16.0%
No curriculum, entirely exploratory	16.0%
Established or required curriculum	9.2%
Other	32.8%

Most write-ins for “Other” were “Emergent curriculum.”

## Educators

The survey responses suggest that approximately 1,500 full-time and part-time staff work in a nature preschool or forest kindergarten setting in the United States. On average, the schools reported employing three full-time staff and four and a half part-time staff over the course of twelve months. While only 11% of schools have no full-time staff and 14% have no part-time staff, the majority of schools are small operations run by just a few staff members.

**Number of full-time educators and other staff (including administrators) that worked in nature preschool or kindergarten programs in the last twelve months (including year-round and/or 10-month full-time staff)**

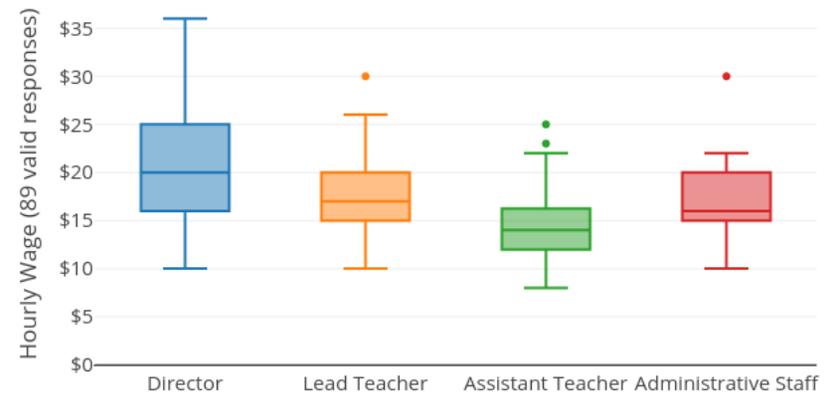
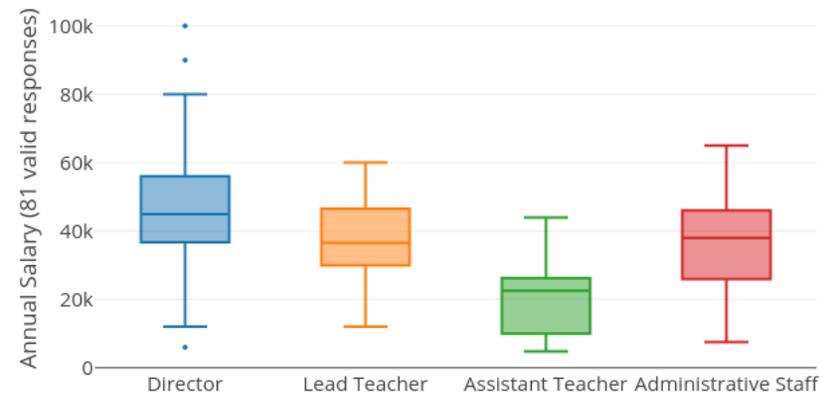


## Educators, cont.

The median annual salary for lead and assistant teachers in nature preschools and forest kindergartens in the United States is \$30,000. This figure is comparable to the median salary for preschool teachers across all settings, student age ranges, and sectors, reported by the U.S. Departments of Education and Health and Human Services as \$28,570 in 2016. However, it falls well short of the annual salary for all kindergarten teachers in the U.S., reported as \$51,640.<sup>5</sup> The median wage of lead and assistant teachers in nature preschools and forest kindergartens paid on an hourly basis is \$15/hour.

### Median and interquartile ranges of hourly wage or annual salary paid to staff in nature preschool or kindergarten programs

		Median Reported Wage or Salary
Director	Hourly Wage	\$20/hour
	Annual Salary	\$45,000/year
Lead Teacher	Hourly Wage	\$17/hour
	Annual Salary	\$36,500/year
Assistant Teacher	Hourly Wage	\$14/hour
	Annual Salary	\$22,500/year
Administrative Staff	Hourly Wage	\$16/hour
	Annual Salary	\$38,000/year



Boxes represent interquartile ranges (middle 50% of responses). Dots are outliers.

<sup>5</sup> U.S. Department of Health and Human Services. (2016). *High-quality early learning settings depend on a high-quality workforce*. Washington, DC: U.S. Department of Health and Human Services.



## How the Survey was Conducted



In July 2017, the Natural Start Alliance, the Eastern Region Association of Forest and Nature Schools, the Northern Illinois Nature Preschools Association, and the Washington Area Nature Preschools Association combined their membership databases into one list of 261 schools. A 22-question survey was emailed to the main contact at each school. Respondents were instructed to fill out just one survey per institution. Two follow-up emails were sent to those who had not responded. The survey was completed by 121 respondents, a 47% response rate. Six schools were unreachable and were not included in the final count of 255 nature preschools and forest kindergartens.

Photo credits: Fiddleheads Forest School, Natural Beginnings Early Learning Program, and The Nature Preschool at Irvine Nature Center.



## About the survey authors:

naturalstart  
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The **Natural Start Alliance** is a national coalition of educators, researchers, and parents who help young children connect with nature and care for the environment. Natural Start is a project of the North American Association for Environmental Education. [naturalstart.org](http://naturalstart.org), [naaee.org](http://naaee.org)



The **Northern Illinois Nature Preschools Association** is a professional collaborative that promotes, supports, and enhances nature-based early childhood education. [www.ninpa.org](http://www.ninpa.org)



The **Eastern Region Association of Forest and Nature Schools** is a non-profit organization that provides services, support, and inspiration to early childhood professionals to advance the field of nature-based early childhood education and encourage life-long appreciation for our natural world. [www.erafans.org](http://www.erafans.org)

*Washington Nature Preschool Association*

The **Washington Area Nature Preschools Association** is a regional collaborative developed to support nature-based and outdoor early childhood education and teachers while working to meet the goals of connection, professional development, resource sharing, community participation, research, and improving preschool education. [www.wanpa.org](http://www.wanpa.org)