

S

Science

T

Technology

E

Engineering

M

Math







Afterschool and summer programs provide hands-on learning opportunities and a natural space for students to explore, learn, and grow. These programs spark students' interest in STEM and computer science<sup>1</sup> subjects, expose them to future careers, and support school-day learning, all while developing a new generation of problem solvers. But, inequities exist and too many young people are missing out.

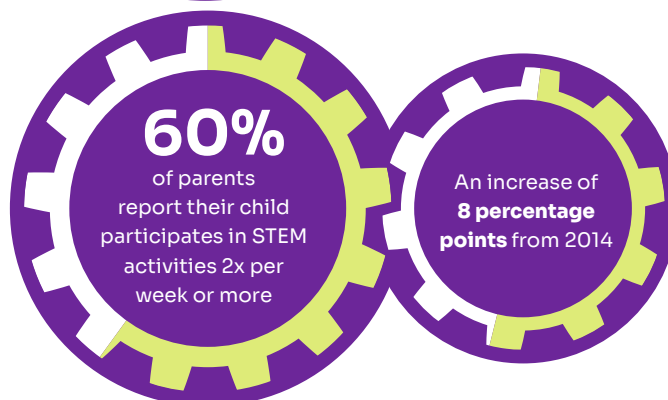
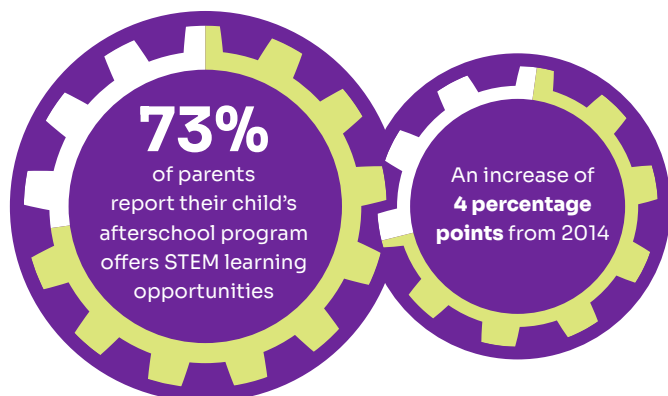


## Opportunities for STEM learning are on the rise in afterschool programs

STEM learning is becoming a larger part of the offerings provided by afterschool programs nationwide. Parents are more likely to report that their child's afterschool program provides STEM learning opportunities, with 73% of afterschool programs providing STEM compared to 69% in 2014. STEM learning is also happening more frequently (at least two times a week) and with more variety of offerings provided in afterschool programs.

### Afterschool programs offer an increasing variety of activities

		2014	2020
	Technology and engineering	30%	39%
	Science learning	46%	49%
	Math activities	60%	62%
	Computer science	N/A	41%



## Computer science in afterschool

Parents report their child's afterschool program offers computer science activities, including computer coding and video game development. Computer science

GRADE LEVEL	COMPUTER SCIENCE
K–5 <sup>th</sup>	37%
6 <sup>th</sup> –8 <sup>th</sup>	48%
9 <sup>th</sup> –12 <sup>th</sup>	47%

offerings are more common for middle and high school students, with almost half of parents of middle and high schoolers reporting their child's program offers computer science as part of its afterschool offerings.

<sup>1</sup> The 2020 America After 3PM survey was the first time that computer science was included as an option for parents to select when identifying different types of STEM activities in their child's afterschool program.

## Parents recognize the value of STEM learning in afterschool

Parents see afterschool programs as a place where kids engage with STEM, sparking life-long connections and curiosity in STEM subjects and putting them on a path to careers in STEM fields.

**More parents report that STEM and computer science are important in the selection of their child's afterschool program and seek out STEM learning when selecting an afterschool program.**

2014 2020

Parents reporting they agree that afterschool programs help children gain interest and skills in STEM



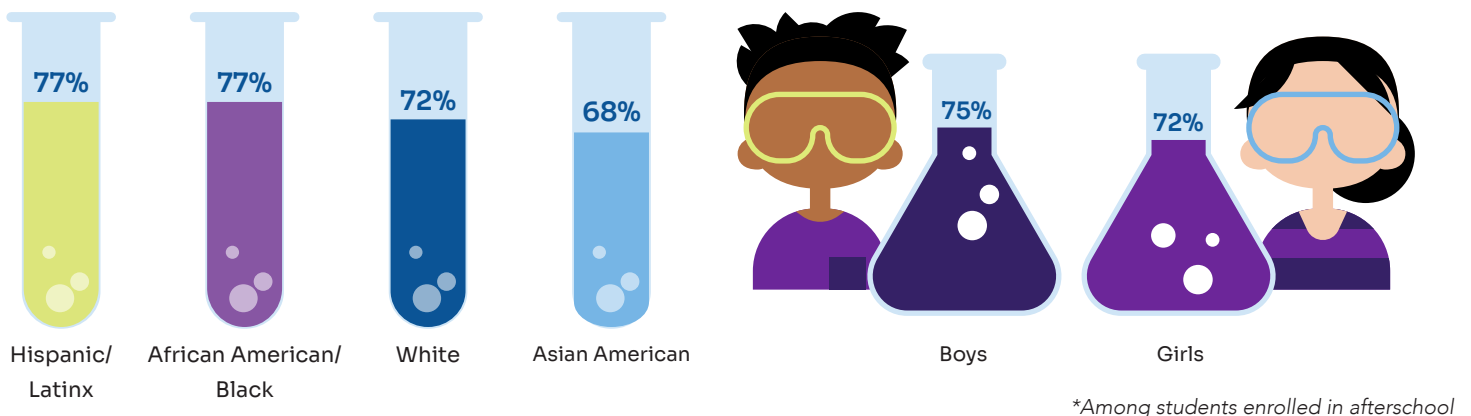
Parents reporting that STEM and computer science learning opportunities are important when choosing an afterschool program



## Afterschool programs reach populations traditionally underrepresented in STEM

Women and people of color are underrepresented in STEM professions. Parents of Black and Latinx students report that their child's afterschool program offers STEM learning at higher rates than parents of White students. Girls have opportunities to participate in STEM learning at similar rates to boys.

**Availability of afterschool STEM learning by ethnicity and gender\***



## STEM learning in the time of COVID-19

**Afterschool and summer programs continue to offer STEM learning opportunities**

A survey conducted in early 2021 found that 76 percent of afterschool programs were providing STEM learning opportunities, which is similar to the rates of STEM offerings before the pandemic. A June 2021 survey found that 83 percent of summer programs were physically open this year, a nearly 70 percent increase from 2020, with 72 percent offering STEM learning opportunities.

Afterschool programs offering STEM learning opportunities during the pandemic



Summer programs offering STEM learning\*



\*Among programs operating during summer 2021

Source: Afterschool Alliance. (2021). [Afterschool in the Time of COVID-19 Surveys](#).

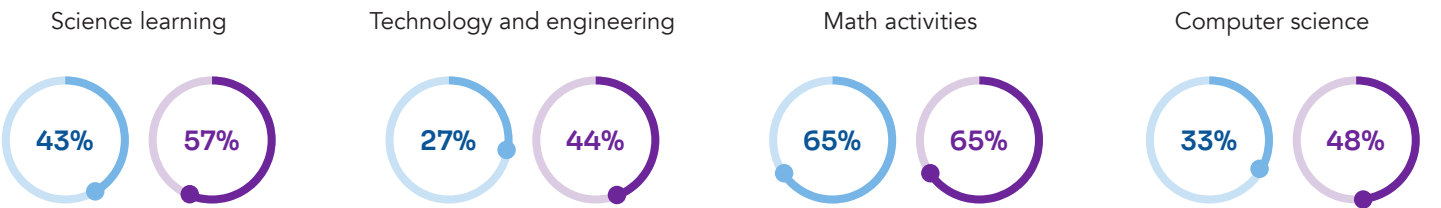
## But opportunities are not evenly distributed to all families

Gaps in the variety and frequency of STEM programming exist between families with lower incomes and higher incomes. Students from families in the highest income bracket have greater variety of STEM offerings in their afterschool programs, particularly in technology and engineering, science learning opportunities, and computer science activities. Students from families in the highest income bracket are also more likely to participate in a STEM activity at least twice a week.

### Kids from families with low incomes are more likely to miss out:

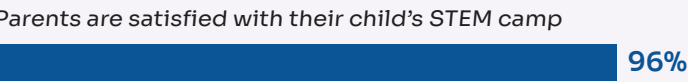
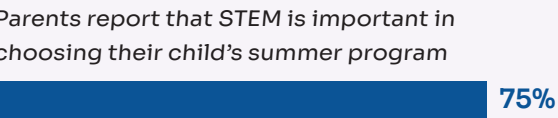


Afterschool opportunities in:



## Summertime STEM

### Parents value the STEM learning opportunities their children receive during the summer



### Nearly 2 million kids participate in summer STEM camps

But barriers exist and children from higher income households are **3x more likely** to participate in a summer STEM camp than children from households with lower incomes. STEM camps are the most expensive summer offering for families.

Voluntary summer programs (different from summer school or summer specialty camps)	Summer Non-STEM specialty camps or programs (e.g., arts, sports, drama, etc.)	Summer STEM camps
\$164.70*	\$216.10*	\$317.10*

\*Average weekly cost

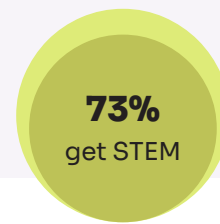
## Fewer students benefit from STEM learning due to increased barriers to afterschool participation

10.2 million  
kids in afterschool



2014

7.8 million  
kids in afterschool



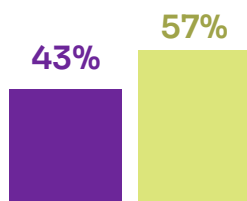
2020

### Barriers to participation reported by parents:

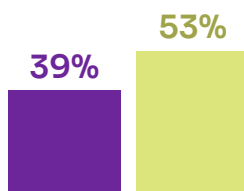
2014 2020



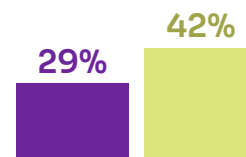
Programs are  
too expensive



Transportation issues,  
no safe way to and  
from program



Lack of available  
programs



## Parents support greater investment in afterschool and summer programs

87%

of parents favor public funding of afterschool programs to expand opportunities for kids in underserved communities

88%

of parents favor public funding for summer learning opportunities

Public funding brings greater opportunities for students to explore hands-on STEM learning in their afterschool programs.

Afterschool and summer STEM learning offer unique benefits and reach youth traditionally underrepresented in STEM, but millions are missing out. Help us ensure all children have access to afterschool and summer STEM learning.

### About the survey

America After 3PM is a national survey of parents or guardians of school-aged children, screening 31,055 households and having 14,393 households completing in-depth interviews via an online survey using a blend of national consumer panels. At least 200 households completed interviews in every state and Washington, D.C., between January 27 and March 17, 2020. Where the minimum could not be met, supplemental telephone interviews were conducted. Data were collected by Edge Research on behalf of the Afterschool Alliance. The percentages and projected numbers in America After 3PM are based on survey responses from parents. Projections for child-level data represent the 57.4 million children and youth in the United States based on numbers from the Census Bureau's October 2018 Current Population Survey.

The America After 3PM special report, *STEM Learning in Afterschool on the Rise, But Barriers and Inequities Exist*, is based on research commissioned and funded by Overdeck Family Foundation. Overdeck Family Foundation was founded in 2011 by John and Laura Overdeck with the goal of providing all children the opportunity to unlock their potential. They focus exclusively on enhancing education, funding efforts both inside and outside of school in the areas of early childhood, informal STEM education, and K-9 programs that include supporting educators and student-centered learning environments.

For additional information about America After 3PM, visit: [afterschoolalliance.org/aa3pm](https://afterschoolalliance.org/aa3pm).

Data from this special report is based on the 2020 America After 3PM survey results, made possible with the support of the New York Life Foundation, Overdeck Family Foundation, The Wallace Foundation, the S.D. Bechtel, Jr. Foundation, Altria Group, the Walton Family Foundation, and the Charles Stewart Mott Foundation.



Afterschool Alliance

The Afterschool Alliance is working to ensure that all children and youth have access to quality afterschool programs.