



Afterschool STEM Takes Off

**Programs Offer More STEM Than Ever,
But Too Many Young People Still Miss Out**

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Afterschool Alliance

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Photo credit: The STEM Connection

Introduction

Science, technology, engineering, and math (STEM) have shaped daily life for far longer than we tend to assume. The reliance on these fields feels modern, but human beings have sought to understand the world around us and put that understanding to use since the dawn of civilization. Agriculture arose from close observation of seasons, soils, and seeds: knowledge refined and passed down across generations, an early illustration of the scientific method. The wheel, one of the most consequential inventions in human history, was a feat of engineering: shaping, balancing, and mounting a load so it could turn freely. The Industrial Revolution of the 1700s, powered by the invention of the steam engine, accelerated the role of STEM in our modern economies and daily lives. Our dependence on these fields has grown with every decade since, as new discoveries turn into applications we now use without a second thought. Google Maps would not work without Einstein's understanding of relativity. Smartphone alarms with more computing power than NASA used for the first moon landing wake us up. Weather apps draw on scientific models running on supercomputers to guide us on what to wear and know when to seek shelter.

We are now entering a modern era of space exploration that will lead to new knowledge and create entirely new industries. And the rapid spread of artificial intelligence (AI) is putting a spotlight on a question that has been building for decades: What does it take to thrive in a world built on STEM? AI offers us powerful new tools and capabilities ranging from the routine, like AI assistants and notetakers, to more complex tasks, like data and image analysis that enable cancer tumors to be identified in very early stages. These tools are now everywhere and easy to use, which has turned them into black boxes we use without recognizing we are even using them or rely on without understanding

them well. That ease makes it tempting to assume the underlying knowledge matters less. But the opposite is true. Just as reading is essential to comprehend text and be a productive worker and citizen, STEM literacy is no longer optional. It is the foundation beneath nearly all jobs, from the nurse reading a bank of monitors to the farmer interpreting data from field sensors, and it is just as essential for the citizenry weighing a public health claim or judging the data behind a ballot measure. The question facing young people is not whether they will need to be STEM-literate, but how much fluency they will need to responsibly create the knowledge and tools that shape their world and to question and use them wisely.

Afterschool programs are an excellent setting for building this kind of fluency. There is a natural fit between the focus on positive youth development in afterschool, inspiring joy in learning, and the mindset needed in STEM fields—being curious, working in teams, and learning to communicate. Freed from the constraints of the school day, afterschool programs let young people engage with STEM in a way that is hands-on, collaborative, and driven by their curiosity.

Young people working on robots not only learn the engineering and coding behind a working machine, but also learn to divide up tasks, troubleshoot when the design fails, and try again. A team investigating the water quality of a local creek begins to understand the science of sampling and analysis alongside the notion of following the data to ask the next question. A project to design a solution for a neighborhood problem, whether it is a safer crosswalk or a community garden's irrigation, builds technical skills while connecting it to a purpose students can see and care about.

In each case, content knowledge and durable skills like collaboration, problem-solving, and persistence are not learned separately—they develop together, through the context of the STEM project. The afterschool field recognizes this synergy and enthusiastically embraces STEM as an essential element of programs.

There is significant research showing the importance of informal STEM learning and afterschool programs in helping young people develop an interest in STEM and gain the skills and confidence to contribute to these fields.^{1,2}

The Afterschool Alliance began collecting data on opportunities for youth to engage with STEM in afterschool programs in the 2014 *America After 3PM* survey. In the ensuing decade, STEM learning in afterschool has expanded dramatically, with a record 92% of parents now reporting that their child's afterschool program offers these opportunities. This did not happen by chance: It is due to the hard work of advocates who made a sustained effort to highlight the potential of afterschool programs to engage and inspire youth in STEM, to afterschool and summer programs demonstrating what high-quality STEM engagement looks like and can achieve, and to both public and private funders who invested

steadily in this work. Ten years later, afterschool programs are considered a crucial part of the STEM education system. Parents also continue to value these opportunities, seeing them as increasingly important for preparation for work and life as children get older.

But even as parents increasingly want afterschool STEM opportunities for their children, the barrier remains whether they can access programs at all in their community: Parents of 29.6 million kids want afterschool access, but 22.6 million still don't have it. Given the prevalence of STEM in afterschool programs now, it is imperative that we increase access to afterschool programs so that all children can experience STEM learning that will prepare them for life and the workforce.

This edition of the *America After 3PM* STEM special report highlights where we have made progress and where work remains to be done. It offers hope that inclusive policies and investments can indeed make a difference and move the needle for young people. It should serve as a call to action for policymakers to ensure that afterschool and summer programs are both publicly funded at the levels needed **and** included in all relevant STEM education legislation and policies as an integral part of the STEM learning ecosystem. We hope it also serves as an affirmation for philanthropy, advocates, and afterschool program practitioners that their investment and hard work is paying off.



STEM in afterschool has become nearly universal and parents value STEM when choosing their child's afterschool program

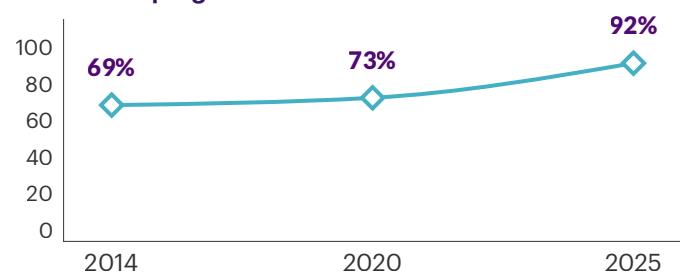
- ▲ A record 92% of parents report that their child's afterschool program offers STEM learning opportunities—up from 69% in 2014.
- ▲ Seventy-seven percent of all parents and 82% of parents with a child in an afterschool program that offers STEM agree that these programs help children gain interest and skills in STEM.
- ▲ Approximately 2 in 3 parents with children in afterschool programs (65%) value STEM when selecting an afterschool program for their child.
- ▲ The prevalence of STEM in afterschool is similar for children across income levels. But low-income children experience fewer STEM offerings per week, and they are far less likely to access afterschool programs in the first place.

Afterschool programs have become a key venue for science, technology, engineering, math, and computer science (STEM) learning, meeting young people where they already are—in school buildings, community centers, libraries, and clubs across the country.* This proximity to families and communities is one of the afterschool field's greatest strengths, and it points to a significant opportunity: Deeper partnerships with STEM-rich institutions such as science centers, museums, and universities could extend the reach of those organizations and bring their expertise and high-quality resources directly to the young people who stand to benefit most. The emphasis on hands-on exploration, relationships with caring adults, and developing durable skills like teamwork and critical thinking are hallmarks of high-quality afterschool programs and exactly what young people need to thrive in STEM careers. Parents make this connection too, as approximately 2 in 3 say STEM is an important factor when choosing a program for their child, and a majority report satisfaction with what their child's program delivers.

The growth has been truly remarkable. In 2014, when *America After 3PM* first began tracking parent awareness of STEM in afterschool, 69% of parents reported their child's program offered these opportunities.^{3,4} Today, that figure is 92%—a transformation that reflects years of sustained effort by programs, practitioners, advocates, and funders alike (see Figure 1). As a result, 6.4 million children out of the nearly 7 million children in afterschool programs today are engaging with STEM through afterschool.[†]

Figure 1. Afterschool STEM availability has increased

Percentage of parents reporting that their child's afterschool program offers STEM:



* The *America After 3PM* survey defined an afterschool program as “a program that a child regularly attends that provides a supervised, enriching environment in the hours after the school day ends (typically around 3 p.m.). These programs are usually offered in schools or community centers and are different from individual activities like sports, special lessons, or hobby clubs and different from childcare facilities that provide supervision but not enrichment.”

† To determine whether an afterschool program offered STEM learning opportunities, this report uses the 2025 *America After 3PM* survey question on parent satisfaction with STEM learning in their child's afterschool program. Parents rated their satisfaction on a five-point scale, with the additional options of selecting “My child's program does not offer this” or “Don't know/NA.” A respondent was classified as their child having STEM learning opportunities available in their program if one of the top five boxes was selected. This method differs from previous surveys, which had one question on the availability of activities and offerings and one on satisfaction with them.

6.4M


Number of youth participating in afterschool programs that offer STEM

Yet, the story is not one of uniform progress. STEM has become nearly universal within afterschool programs, but afterschool programs themselves remain out of reach for too many families. A child cannot benefit from what a program may offer if they cannot access a program at all. The sections that follow examine what parents value, what children are experiencing, and where the gaps remain.

STEM in afterschool has become widespread

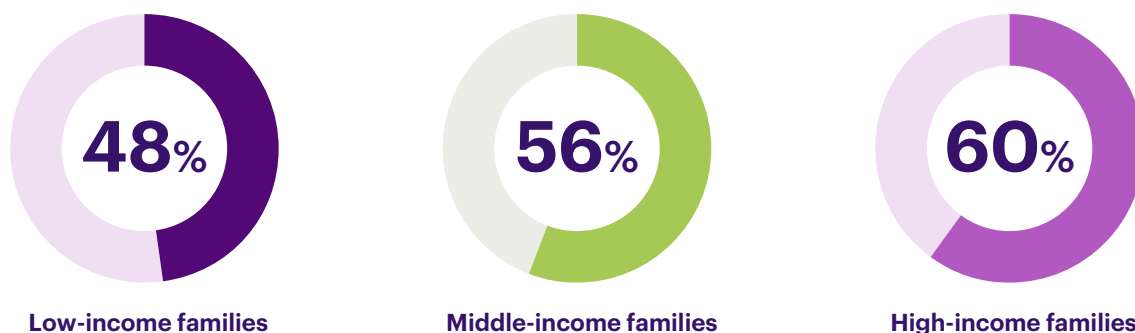
The 2025 *America After 3PM* survey finds that 92% of parents report their child's afterschool program offers STEM learning opportunities, a record high and a significant leap from 69% in 2014.⁵ This means that for the vast majority of children enrolled in an afterschool program today, STEM is part of their experience. Among children with STEM as part of their afterschool program, a majority (54%) have multiple opportunities to engage with STEM at least two to three times a week.

Importantly, regardless of income levels, once a child is enrolled, access to STEM programming is largely available. But equity in access does not yet mean equity in exposure: Low-income families are significantly less likely to report that their child has access to STEM learning activities multiple times a week (48%) compared to middle-income (56%) and high-income (60%) families (see Figure 2). For children who could most benefit from consistent STEM engagement, frequency remains a persistent gap.

The *America After 3PM* surveys have tracked STEM participation by gender since 2014. The underrepresentation of women in STEM fields, especially in the physical sciences, computer science, and engineering, is well documented.⁶ But afterschool programs are a space where parents report similar rates of STEM opportunities for boys and girls: 69% for both in 2014, 75% versus 72% in 2020, and 93% versus 91% in 2025. The steep rise across these years reflects the broader expansion of STEM availability in afterschool programs since 2020, and at every point, the rates for boys and girls have moved in near lockstep. These nearly identical rates suggest that afterschool programs are continuing to create an inclusive entry point to these fields regardless of gender.

Figure 2. Low-income families report their child participates in STEM activities less frequently than high-income families

Percentage of parents with a child in an afterschool program reporting that their child has access to STEM learning at least 2-3 days per week:





of all parents agree that afterschool programs help children gain interest and skills in STEM

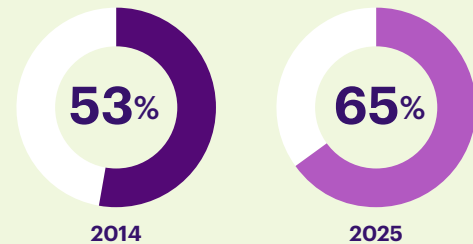
Parents value STEM and are satisfied with what programs deliver

STEM has become a meaningful factor in how parents choose an afterschool program for their child. More than 3 in 4 parents (77%) agree that afterschool programs can help children gain interest and skills related to STEM, up from 65% in 2014. Nearly 2 in 3 parents (65%) say STEM is important in their afterschool program selection, considerably higher than the 53% in 2014. And programs are delivering: A majority of parents (61%) report satisfaction with the STEM offerings in their child's program.

Native American (73%), Black (70%), Hispanic (70%), and Asian American (68%) families all place greater importance on STEM in their selection than White families (62%)—a pattern consistent with findings from the 2021 *America After 3PM* STEM report. Satisfaction rates follow a similar pattern, with Black (67%), Hispanic (68%), and Native American (69%) families reporting higher satisfaction than White families (60%). Asian American families are a notable exception, reporting the lowest satisfaction rates (53%) of any group; this finding warrants further exploration beyond what this survey can tell us.

There is a small but consistent gender gap for STEM as a priority when choosing afterschool programs. Parents of boys are somewhat more likely to say STEM is important (67%) than parents of girls (62%), even though the availability of STEM in afterschool programs is nearly identical for both boys and girls. This suggests that while programs are succeeding in making STEM available to girls, the perception that STEM is especially important for boys may persist among some parents.

PARENTS PRIORITIZING STEM WHEN SELECTING AN AFTERSCHOOL PROGRAM HAS INCREASED

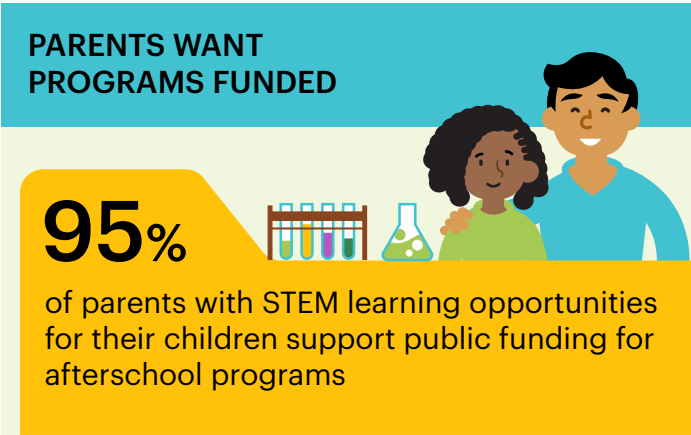


INSIGHT FOR PROGRAMS

While dissatisfaction with STEM programming is extremely low, nearly a quarter of parents indicate that they are neutral or uncertain about their satisfaction level. This level of uncertainty is higher than what parents report for other offerings they prioritize—such as opportunities to interact with peers or physical activity—and is more comparable to what they express about music, tutoring, or wellness activities. For programs, this points to a straightforward opportunity: Clearer communication about topic-specific offerings, such as STEM, may help more parents recognize and value what their child is already experiencing.



Photo credit: NASA/Charles Beason



STEM learning happens where young people are

STEM programs in afterschool reach young people across a wide range of community settings. Parents report that programs that include STEM are most commonly run by public schools (41%), followed by Boys & Girls Clubs (22%), city or town facilities (16%), libraries (15%), private schools (14%), YMCAs (14%), community-based nonprofits (13%), childcare centers (13%), science centers and museums (9%), and religious organizations (9%) (see Figure 3). This breadth reflects one of the afterschool field’s core strengths: the ability to meet families where they are, in the places they already know and trust.

Expanding partnerships between STEM-rich institutions and the organizations already delivering afterschool programming at scale represents a natural next step. Schools and community-based organizations have demonstrated both the commitment and the reach to deliver STEM where young people already are—and science centers, museums, and others with deep STEM expertise have this ready-made network of trusted community partners through which to extend their impact. Bringing these two worlds together more intentionally could deepen the quality and range of STEM experiences available to young people, particularly those in communities where access to such institutions is limited.

Figure 3. Afterschool STEM is offered across the community

Percentage of parents with a child in an afterschool program that offers STEM reporting where the program takes place:



Recommendations

- 1. Increase funding for afterschool programs, with targeted investment in underserved and rural communities.** Access remains the central barrier—a child cannot benefit from STEM programming offered in afterschool if they are not in an afterschool program. Policymakers should increase public funding for afterschool programs in all communities so that all families have access to the programs and all children can benefit from the opportunities they provide.
- 2. Ensure afterschool programs are included in legislation focused on the STEM fields.** Policymakers should ensure afterschool and summer programs are included as eligible partners in all relevant STEM legislation and funding streams that target education and training in those fields. Funding should prioritize both availability and dosage, ensuring children have opportunities to engage with STEM consistently rather than occasionally.
- 3. Incentivize partnerships between community-based afterschool programs and STEM-rich institutions.** Science centers, museums, and universities have expertise and resources that most afterschool programs cannot replicate on their own. Intentional partnerships—supported by funders and policymakers—could meaningfully expand the quality and range of STEM experiences available to young people.
- 4. Support programs in communicating clearly with families about their STEM offerings.** Nearly a quarter of parents report being neutral or uncertain about their satisfaction levels with the STEM programming in their child's afterschool program. Helping programs develop straightforward, accessible ways to share more details of the content areas they offer could increase parent awareness, engagement, and confidence in the varied programming that afterschool delivers.



STEM in afterschool is not a monolith: A deeper look at the subjects that make up “STEM”

- ▲ There has been a dramatic growth in availability of individual STEM subjects, with computer science, technology, and engineering nearly doubling in the past five years.
- ▲ Science and math outpace computer science, technology, and engineering on availability, parent importance, and satisfaction; this pattern holds consistently across income, race, and gender.
- ▲ There is a notable gender gap in the importance parents ascribe to computer science, technology, and engineering with parents of boys prioritizing them more than parents of girls.
- ▲ AI increases the importance of STEM proficiency.

“STEM” has become a familiar shorthand in education policy, program design, and public discourse, but it encompasses several distinct fields that young people, parents, programs, and policymakers view and experience very differently. The fields are grouped together for good reason as they are deeply interconnected: Science and math are not only intertwined but also drive engineering and technology, while engineering and technological advances in turn enable new scientific discovery. They also draw on a common set of durable skills like observation, reasoning, and problem-solving as well as communication and collaboration.

But treating the subjects as a single category can conflate very different activities and opportunities. A program where kids extract DNA from a strawberry, one where children work out optimal growing conditions in a community garden, and one that offers coding and robotics are all “STEM programs,” yet they deliver very different experiences and reach families with very different expectations. The 2025 *America After 3PM* survey examined the five subjects individually: science, technology, engineering, math, and computer science, allowing for a more nuanced picture of how availability, parent priorities, and satisfaction vary across them. The findings make a compelling case for moving beyond the umbrella term: Now that we can see where the gaps exist by subject, income, race, and gender,

we are better positioned to target investment, design more responsive programming, and have more precise conversations about where the real opportunities and challenges in afterschool STEM engagement lie.

Availability of the individual STEM subjects in afterschool has increased

Since 2014, *America After 3PM* has tracked parent awareness of STEM offerings in their child’s afterschool program. The 2014 survey asked about science and math but combined engineering and technology into a single category. The 2020 survey added computer science alongside science and math, while still keeping engineering and technology together. The 2025 survey expanded this tracking to examine each subject individually (science, technology, engineering, math, and computer science), allowing a detailed picture of how each is represented across programs and how parents think about them differently.

As discussed above, these subjects are interconnected and are rarely learned in isolation. But the survey asked parents about each one separately, using illustrative examples to make the distinctions concrete. This allows us to see how available each subject is and how parents’ awareness of them differs.

The growth in availability across all subjects has been dramatic. Parents report that math (87%) and science (85%) are the most widely available, but engineering (81%), technology (77%), and computer science (77%) are also present in a large majority of programs. This is a striking shift from a decade ago when just 30% of parents reported engineering and technology (combined) as available in their child's program (see Figure 4).

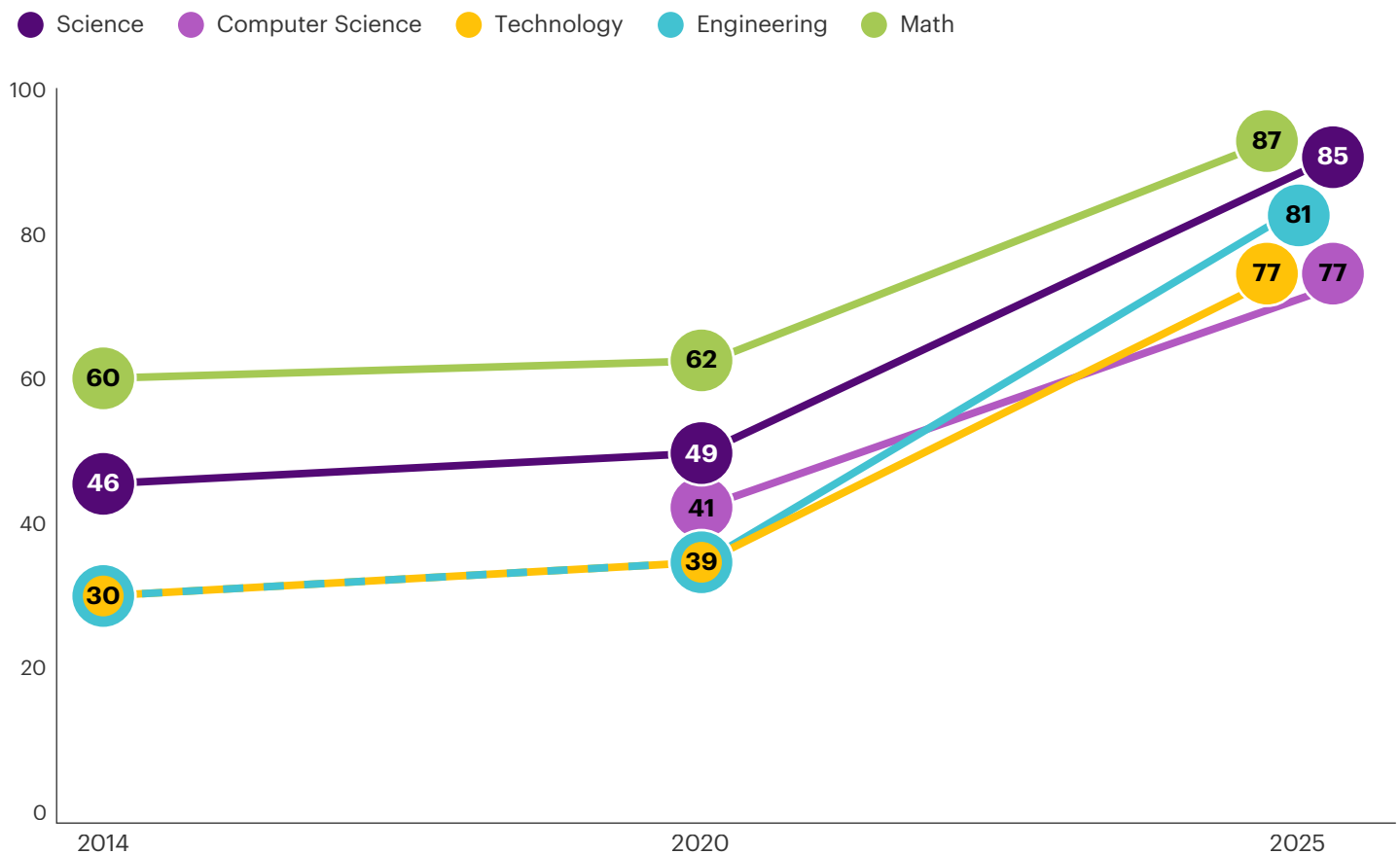
This breadth of availability holds across income levels. Families at all income levels report similar access to each subject, reinforcing a finding from the previous section: Once children are in a program—regardless of income level—they can access STEM learning opportunities. The persistent barrier is getting into a program in the first place.

Availability of STEM overall is also largely consistent across genders, though boys have a slightly higher likelihood than girls of having access to computer science (79% vs. 76%), technology (79% vs. 75%), and engineering (82% vs. 79%). This pattern mirrors the findings in the 2021 report and carries forward into how parents value these subjects.

Black, Native American, and Hispanic families report the highest availability across all STEM subjects. Technology stands out as the subject with the most variation by race: It is available to 68% of Asian American families and 76% of White families compared to at least 80% for the other groups.

Figure 4. STEM subject availability has grown

Percentage of parents reporting their child's afterschool program offers STEM subjects:*



*The 2014 and 2020 surveys asked about technology and engineering activities as a single combined answer option.

Parents place top value on science and math

Parents make clear distinctions between the individual subjects that make up “STEM.” While 65% of parents say that STEM overall is an important factor in selecting an afterschool program, science (73%) and math (71%) rank considerably higher than computer science (58%), technology (60%), and engineering (60%). Math and science are the subjects that are most available and the ones parents value most.

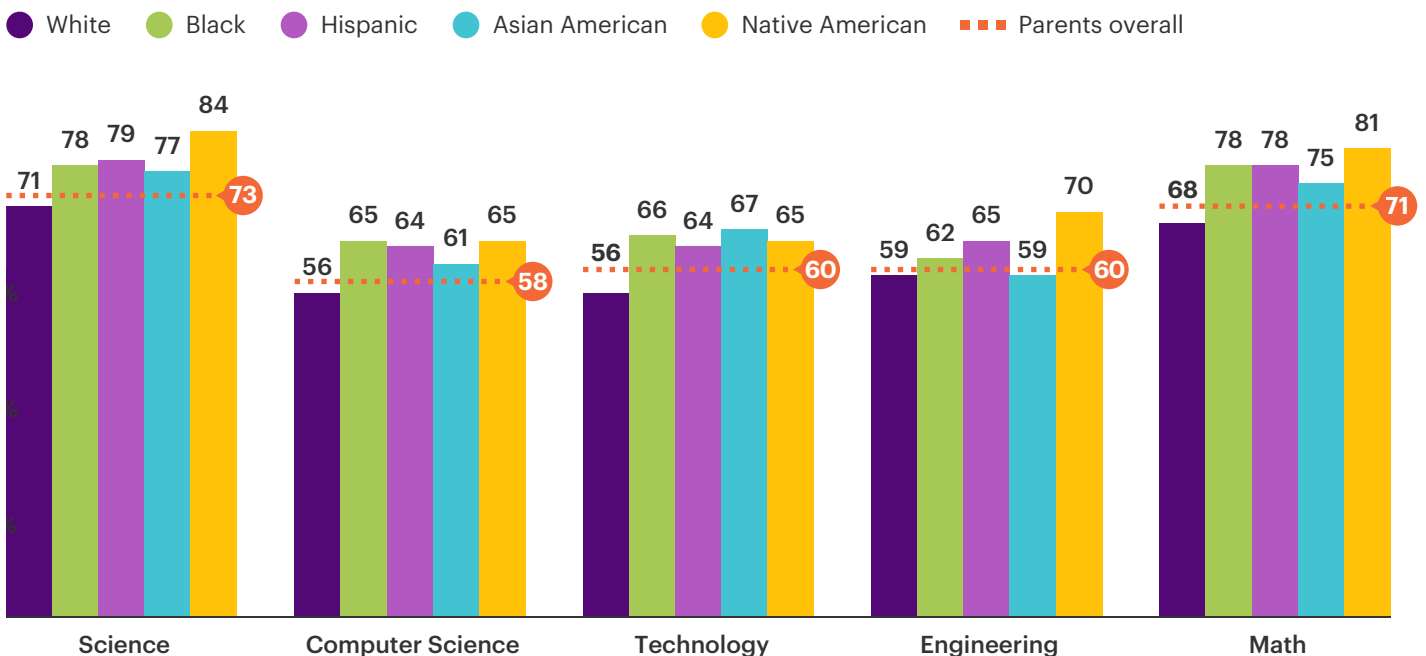
This pattern holds across all income levels, with science and math consistently at the top. Higher-income families

place somewhat more importance on computer science (61%), technology (62%), and engineering (64%) than lower-income families (56%, 57%, and 59% respectively), though the gap is modest.

Across racial groups, science and math are universally the top priorities. Black, Hispanic, Asian American, and Native American families are more likely than White families to say all STEM subjects are important in their program selection. White and Asian American families share a lower preference for engineering (59%) compared to other groups (see Figure 5).

Figure 5. Importance of STEM subjects in parent selection of afterschool programs overall and by race

Percentage of parents reporting STEM subjects were extremely or somewhat important in their afterschool program selection:



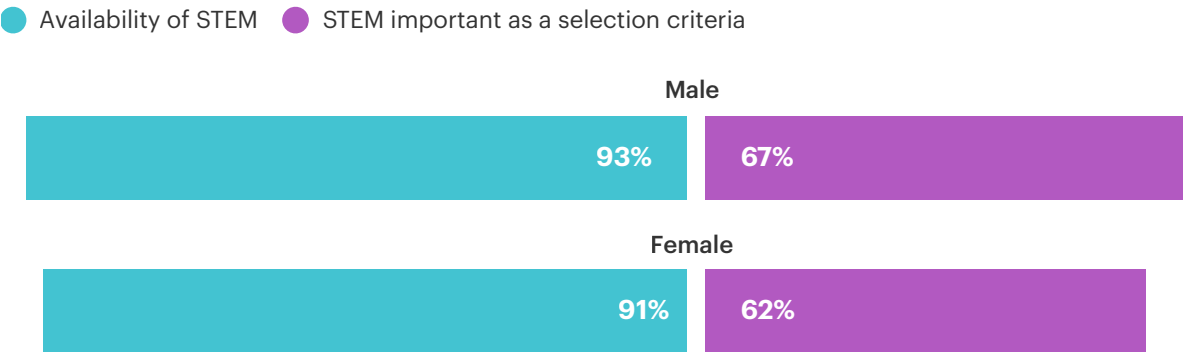
The gender gap in these data is worth close attention. Parents of boys place considerably higher importance on computer science (63%), technology (63%), and engineering (63%) than parents of girls (53%, 56%, and 58% respectively). Given that parents reporting availability of these subjects is already slightly lower for girls than boys, the combination of decreased access and lower parental priority points to where gender equity efforts in STEM may need to be focused (see Figure 6).

Parent satisfaction mirrors the importance hierarchy

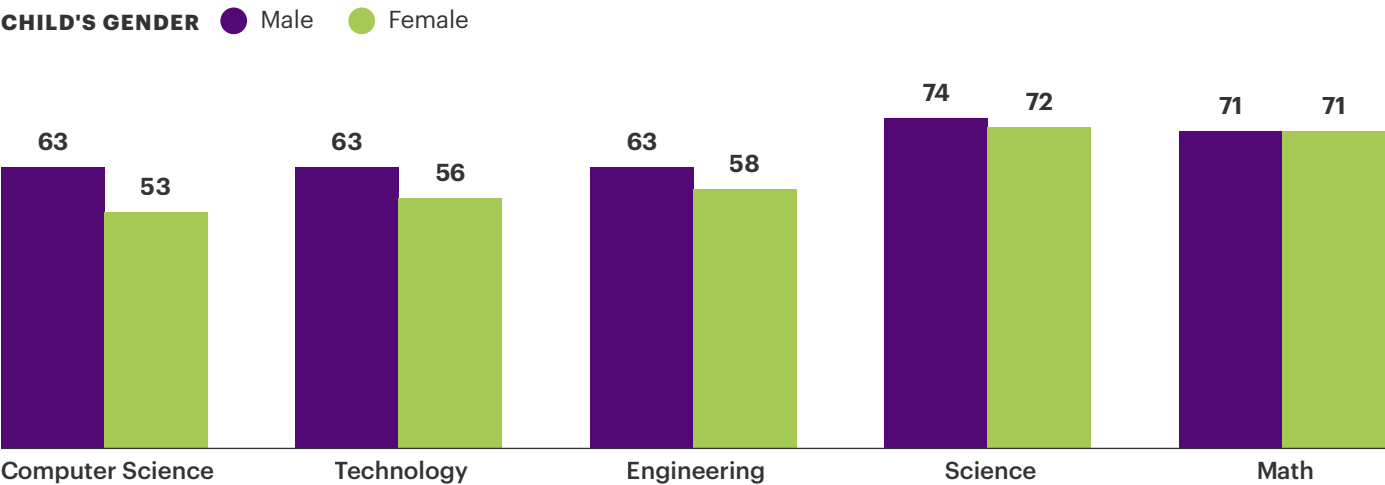
Satisfaction with individual STEM subjects follows the same pattern as importance. Among parents whose child’s afterschool program offers STEM, satisfaction is highest for math (69%) and science (66%) and noticeably lower for technology (56%), computer science (57%), and engineering (58%). The subjects parents value most, math and science, are the ones most widely available and the ones with the highest levels of satisfaction.

Figure 6. Parents of boys and girls report nearly identical afterschool STEM availability but have different STEM subject priorities for boys versus girls

Percentage of parents reporting they have a child in an afterschool STEM program:



Percentage of parents reporting STEM subjects as extremely or somewhat important in selection of afterschool program based on child's gender:



Satisfaction is largely consistent across income levels, with one exception: Higher-income families reporting that their afterschool program offers technology activities are more likely to report satisfaction than lower-income families (62% vs. 54%). This may suggest that lower-income families have higher expectations or the quality or depth of technology programming may vary more by income compared to other STEM subjects.

Across racial groups, science and math again top the satisfaction rankings. Black, Hispanic, and Native American families report higher satisfaction across all subjects than White and Asian American families. Asian American families report the lowest satisfaction rates of any group for every

subject, especially for computer science (50% compared to an average of 61% for the other races), technology (47% vs an average of 60%), and engineering (47% vs an average of 63%). As with the overall satisfaction finding flagged in the previous chapter, this pattern warrants deeper exploration than this survey data alone can provide.

The gender pattern for satisfaction parallels the pattern for importance. Parents of boys report slightly higher satisfaction than parents of girls for computer science (59% vs. 55%), technology (57% vs. 54%), and engineering (60% vs. 57%). Lower parental priority, lower availability, and lower satisfaction for girls in these three subjects together point to a consistent and compounding gap.

AT A GLANCE

STEM and gender differences



- Access is equitable.** Parents report that afterschool programs offer boys and girls STEM opportunities at nearly identical rates (93% and 91% in 2025). This is an improvement from earlier years, when availability grew faster for boys.
- There is a gap in STEM priorities for girls.** Parents of boys place higher importance on STEM as a priority overall when choosing afterschool programs compared to parents of girls (67% compared to 62%). Parents of boys also place a higher importance on computer science, technology, and engineering (63% across all three) than parents of girls (53%, 56%, and 58%, respectively).
- Targeted interventions are needed.** The priority is to sustain the broad access that is already engaging girls in STEM, while paying closer attention to computer science, technology, and engineering, where a gap persists.



Scientific Adventures for Girls

Berkeley, California

Founded in 2014 and based in Oakland, California, Scientific Adventures for Girls (SAfG) delivers year-long, hands-on STEM afterschool programs to girls across 25 elementary schools in Oakland, Richmond, San Pablo, El Sobrante, Berkeley, and Emeryville. During the 2025–2026 school year, SAfG served nearly 900 girls, offering 27 hours of STEM education over 27 weeks.

The program's curriculum rotates through different immersive science themes, such as biomimicry and the science of slime. Each unit is taught through hands-on projects and activities designed to spark genuine curiosity. A signature element of the program is the integration of female STEM role models—volunteer professionals who reflect the girls' own backgrounds and show them firsthand that STEM careers are within reach. More than 80% of students said it was exciting to meet women working in STEM careers, such as climate change scientists.

SAfG serves a community that too often goes unseen in STEM: Approximately 90% of participants are girls of color, and over 85% qualify for free or reduced lunch. Survey data from 2024–2025 shows the program is working, as 83% of girls say they get excited about STEM, 81% want to do more science because of SAfG, and 80% want to come back next year.



Photo credit: Scientific Adventures for Girls

To help sustain interest, family engagement is woven throughout, with weekly teacher communications, monthly newsletters, at-home projects, and seven Family STEAM Nights each year.

Recommendations

- 1. Maintain core investments in science and math.** Science and math are widely available in afterschool programs, and parents are largely satisfied with what programs deliver. It is critical to maintain investments in these core subjects as they are foundational for making progress in any STEM field, even as new scientific and technological advances are made. Understanding and applying new scientific discoveries and developing new technologies, including AI, rests on a robust understanding of scientific principles and math proficiency.
- 2. Increase targeted investments in computer science, technology, and engineering programming.** Additional attention is needed to address the real gaps in computer science, technology, and engineering offered in afterschool programs, where availability, parent priority, and satisfaction all lag. Funders and policymakers should direct additional resources toward these subjects intentionally, including through relevant STEM subject-specific legislation that addresses engagement and education in those fields. The funding should include professional development for program staff and partnerships with technical experts and industry partners who can help programs deliver higher-quality experiences.
- 3. Disaggregate STEM in grantmaking, reporting, and policy.** Treating STEM as a single category obscures the real gaps. Requesting reports on individual STEM subjects can offer a more accurate picture of what is actually being delivered and where investment is having the most impact. For example, parents of girls place significantly lower priority on computer science, technology, and engineering than parents of boys, but parents of girls also show lower availability and satisfaction in these same areas. Low-income families indicate lower satisfaction than high-income families with technology programs. A better understanding of investments, programming, and impact is essential to determine how to address these gaps.

THE AI PARADIGM SHIFT AND THE NEW DEMANDS ON STEM LEARNING

The arrival of ChatGPT in December 2022 felt like a sudden insertion of artificial intelligence into daily life, but AI research had been underway for decades, and earlier versions of AI were already in widespread use. But ChatGPT marked a paradigm shift: It ushered in an era in which powerful large language models (LLMs) are now deployed seemingly everywhere, reshaping what people need to know to use these tools well.

But this technology presents a paradox. Rather than lessening the need for human knowledge, it actually raises the bar. Using AI effectively requires the expertise to direct it well and, critically, the judgment to discern whether its outputs are plausible and accurate. The implications for education are profound. Far from reducing what students must learn, AI increases the onus on educators to prepare young people more robustly: to build the deep content knowledge, critical thinking, and discernment that will allow them to harness AI as a tool rather than outsource their thinking to it. An AI-enabled world does not lower the bar for scientific and mathematical literacy; it actually raises the bar. Evaluating whether an AI's answer is plausible requires the quantitative reasoning to sense when a number is off, the scientific grounding to spot a flawed claim, and the computer science literacy to understand what these systems can and cannot do. These are not skills AI replaces; they are the skills that make AI truly useful. Building them takes time, practice, and space to explore, the kind of hands-on, inquiry-driven learning that STEM programs in afterschool are well positioned to provide.

And programs are responding to this need. A survey of afterschool program providers conducted in fall 2025 showed that AI use is growing among program providers. In the fall 2024 survey, only 38% of providers reported they used AI in some capacity in their program. This number grew to 53% in 2025, including 15% of programs who report they are teaching their students how to use AI tools.⁷



Better Than School (BTS)—Newton's Thinkers

Prince George's County, Maryland



Photo credit: Better Than School

Better Than School (BTS) is an education organization in Prince George's County, Maryland, that operates Newton's Thinkers, a year-round afterschool and summer program funded through the 21st Century Community Learning Centers (21st CCLC) federal program. Serving students in grades K-5 Monday through Thursday and on select Saturdays, across multiple school sites, BTS blends STEM enrichment, academic support, and career pathway exploration to open doors for students who need it most.

Students engage in project-based learning experiences, including 3D printing, architectural design, engineering challenges, robotics, and drone piloting. Field trips bring learning to life, from aviation and natural history museums to glass blowing studios and working farms. BTS intentionally ties each experience to real careers in fields like health sciences, environmental science, digital media, and architecture, so students can

see a direct line between what they're doing after school and where they could go in life.

In the summer, BTS runs A Summer Without Walls, a six-week program that offers immersive experiences where students as young as kindergarten-age can design 3D cities, explore culinary arts, and take on science challenges in a hands-on, low-pressure environment.

BTS also hosts math battles annually, a 21st CCLC site competition that brings friendly academic rivalry and community energy to math skill-building.

To support the programs, BTS operates a train-the-trainer model, in which high school and college students enrolled in STEM programs are recruited as "champions," serving as near-peer mentors who lead programming and deepen their own mastery by teaching it. Many were Newton's Thinkers participants themselves.

HOMESCHOOL PARENTS SEEK OUT STEM PROGRAMMING IN AFTERSCHOOL

Across every measure in the analysis of afterschool STEM data, including participation, importance, satisfaction, and subject availability, homeschooling families stand apart from families with children in public or private schools. They are more likely to have their child participate in afterschool STEM, more likely to say STEM subjects are important when selecting a program, and more satisfied with what programs deliver. Because the number of homeschooling families in the survey is small, these findings should be interpreted with caution and are not a basis for firm conclusions. Still, the consistency of the pattern across every dimension examined here makes it worth noting and worth exploring in future research with a larger sample.

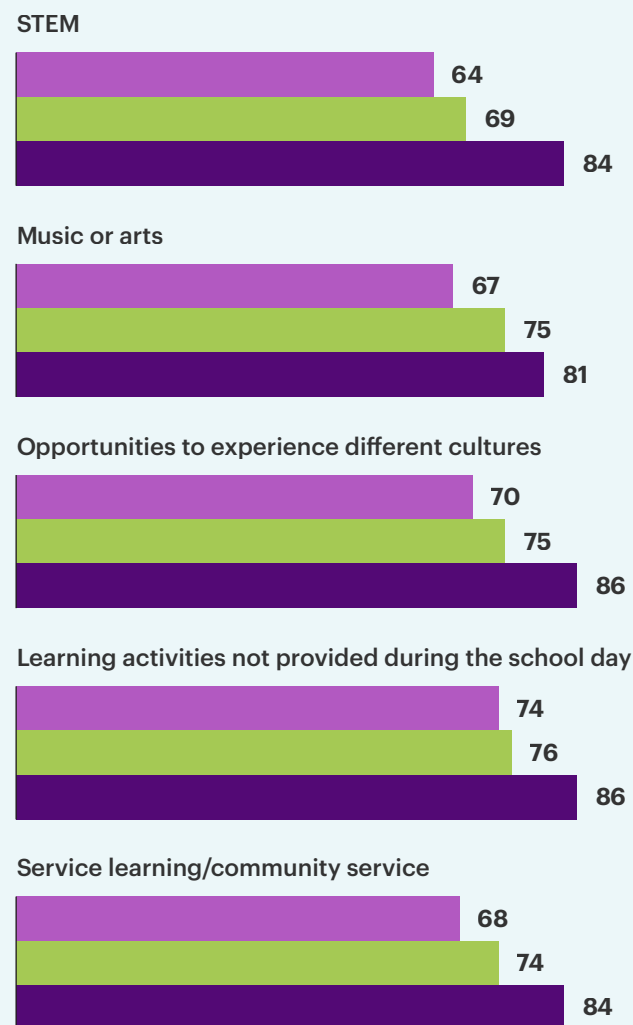
One thought that may help explain the pattern: Homeschooling families who enroll their children in afterschool programs may be doing so with a degree of intentionality, seeking topics and experiences they can't easily offer at home. Figure 7 shows some of the elements of programming, including STEM, that homeschool parents actively prioritize. This is in contrast to the lower priority they assign to elements of programming such as building confidence (90% for public school parents vs. 78% for homeschool parents) or a sense of belonging (89% vs. 76%). Both public and homeschool parents assign a similar priority for the importance of developing durable skills like communication, teamwork, critical thinking, leadership, and entrepreneurship (87% for public school parents and 88% for homeschool parents). It is likely that parents of homeschool youth are actively seeking afterschool programming they believe their kids would benefit most from and perhaps feel least prepared to deliver.

If homeschool parents are actively seeking out STEM-focused programming, higher rates of participation, stronger subject-level importance ratings, and greater satisfaction would likely follow as seen in the *America After 3PM* data. This suggests that afterschool programs offering STEM that intentionally recruit and design for homeschool children and youth may find a ready and engaged community of families.

Figure 7. Homeschool parents highly value STEM when selecting an afterschool program for their child

Percentage of parents reporting that the following topics are extremely or somewhat important when selecting an afterschool program:

Public school Private school Homeschool



Rural parents value STEM but face big gaps in afterschool STEM access

- ▲ A majority of rural parents say STEM is an important priority when selecting an afterschool program for their child, but rural families face significant barriers accessing quality STEM programming.
- ▲ Rural parents are less likely to report that their child's afterschool program offers STEM activities than urban parents; and rural families living more than 30 miles from a metro area face the steepest gaps in availability, frequency, and satisfaction across every STEM subject.
- ▲ The data suggests an appetite for science learning that programming could tap to meet the needs of rural parents.

The term “rural” most often brings to mind a vision of farms and agricultural land, but it actually encompasses a strikingly diverse set of communities that range from farmland to deserts and mountainous regions that cannot sustain agriculture. Rural is also defined in more than one way: The U.S. Census Bureau classifies it by low population and housing density, counting about 66 million people, roughly 20% of the population, while definitions built on county economic ties count closer to 46 million, roughly 14% of the population.⁸ By either measure, the contexts, conditions, needs, and opportunities behind that single label vary enormously from one rural community to the next.

This diversity is why afterschool programs matter so much in rural America: They can tailor their offerings to the particular community they serve. And rural communities bring distinct strengths to STEM learning, from familiarity with the natural world to hands-on experience with the land, tools, and industries that shape daily life.⁹

Yet rural families also face real barriers. Poverty rates tend to be higher, resources and partners are harder to access, and outcomes lag behind urban areas. Rural families also face persistent barriers to afterschool participation—there are fewer afterschool providers and transportation can be challenging. And when it comes to STEM, those barriers are compounded by a supply gap that leaves rural children with fewer opportunities than their suburban and urban peers.



Photo credit: Children Learning through Outdoor Experiences (ChLOE) Media

Rural parents value STEM but experience uneven supply

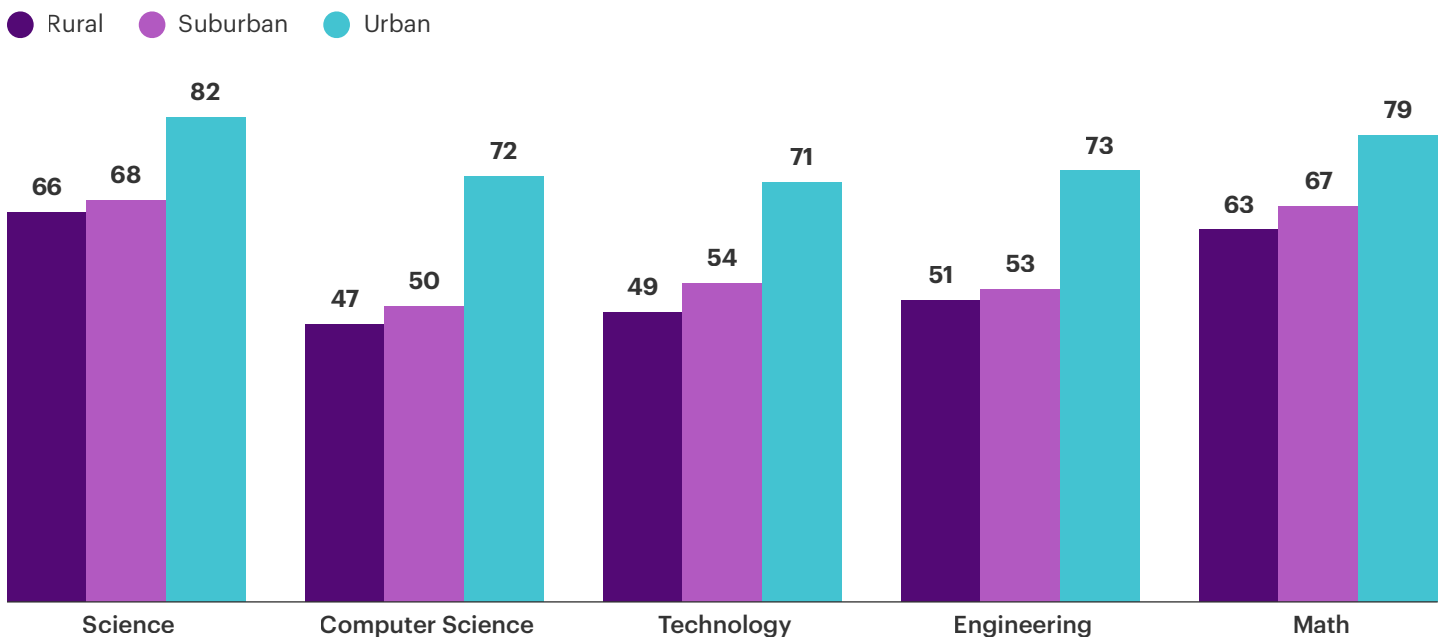
More than half of rural parents (55%) say STEM is an important priority when choosing an afterschool program. That number is lower than the 75% of urban parents who say the same, and the gap is widest for computer science (47% rural vs. 72% urban), technology (49% vs. 71%), and engineering (51% vs. 73%) (see Figure 8). Whether this gap reflects a genuine difference in priorities or simply more limited exposure to quality STEM programming is difficult to determine from the data alone. What is clear is that rural parents are not indifferent to STEM.

Science is a case in point. Rural parents rate science as an important priority at 66%, the highest rating for any STEM subject in rural communities. Rural children often grow up with close hands-on relationships with the natural world that their urban peers may not share, and this connection to science could be reflected in what rural parents want in their children's programs.

Overall, 88% of rural families report that STEM activities are available in their child's program, compared to 96% of urban families. However, that aggregate figure understates the subject-level gaps, particularly for technology and computer science. Rural parents report far less availability of both subjects than urban parents: Eighteen percent of rural parents say their child's program does not offer computer science, compared to 8% of urban parents, and 22% report that technology is not offered, versus 9% of urban parents. Science and math, the subjects rural parents prioritize most, are also missing more frequently: Eleven percent of rural parents say their child's program does not offer science, and 8% report it does not offer math, compared to 6% and 4% of urban parents, respectively.

Figure 8. Families living in urban areas prioritize STEM more than those in rural and suburban areas

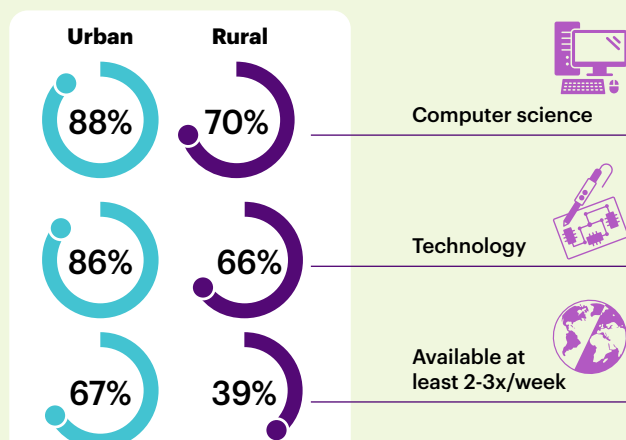
Percentage of parents reporting STEM as extremely or somewhat important in afterschool program selection, by community type:



Frequency compounds the availability gap. Rural parents are significantly less likely to report that their child participates in STEM activities at least two to three times per week: 39% of rural parents, compared to 67% of urban and 47% of suburban parents.

Differences in satisfaction rates follow a pattern similar to availability. Rural parents report a satisfaction rate of 50% for STEM overall, compared to 73% among urban parents, with the largest gaps in technology (43% rural vs. 70% urban) and computer science (46% vs 72%).

RURAL PARENTS REPORT FAR FEWER STEM OPPORTUNITIES



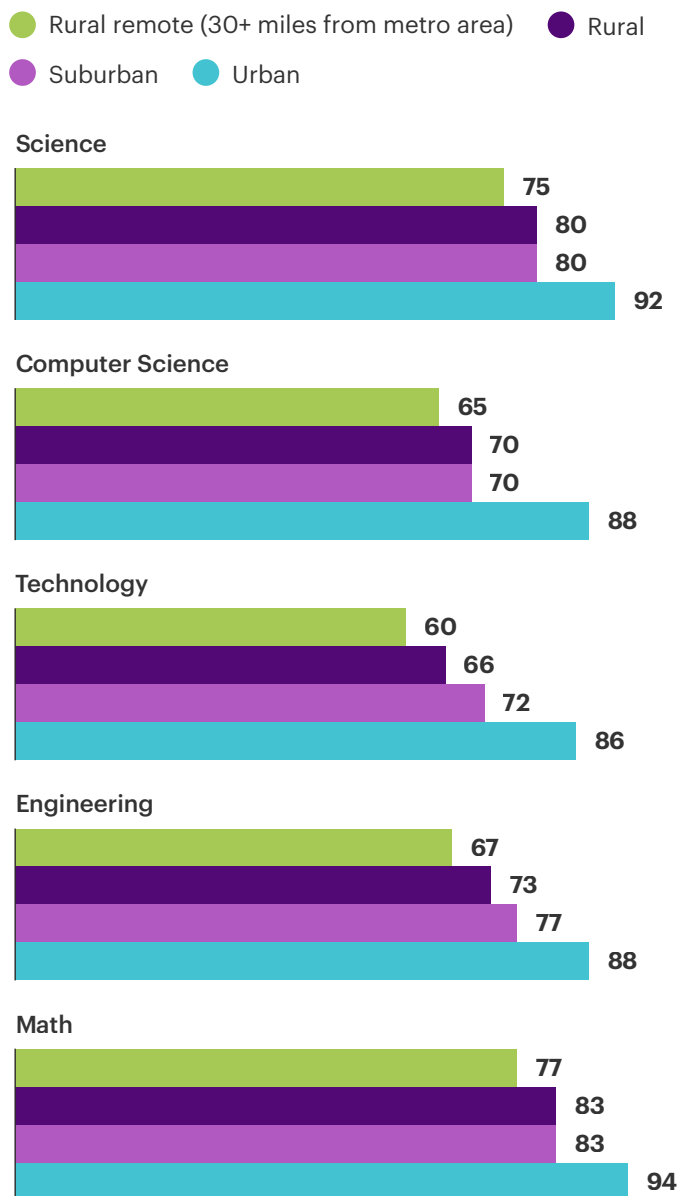
Distance increases disadvantage

Within rural communities, geographic isolation creates an additional layer of inequity. Families living more than 30 miles from a metro area report decreased availability of and satisfaction with all components of STEM. Overall STEM availability once the child is in a program drops to 85% for this group, compared to 90% for rural families living closer to metro areas (and 96% for urban areas). Science availability falls to 75%, compared to 83% for rural families with better access to metro areas (see Figure 9). Overall STEM satisfaction drops to 42%, with technology the lowest at 34%.

The pattern is consistent across every subject and every measure. For the most geographically isolated rural families, parents report less availability of and lower satisfaction with STEM in afterschool compared to those closer to metro areas.

Figure 9. Families in urban areas have more access to afterschool STEM than those in rural and suburban areas

Percentage of parents reporting they have a child in an afterschool program that offers STEM, by community type:



Where STEM is offered in rural afterschool programs

In rural communities, afterschool STEM is most likely to be delivered through public schools. Rural and urban families with children engaged in STEM learning in afterschool report public school-based programs at nearly the same rate (43% and 40%, respectively), but rural families are substantially less likely to report that their child is in a program offered by every other leading provider, including Boys & Girls Clubs, parks and recreation departments, libraries, childcare centers, private schools, and museums and science centers. The widest gap between rural and urban families with afterschool STEM is participation in museums and science center programs (2% vs. 15%, see Figure 10). These STEM-rich providers are often more prevalent in higher population density areas, leaving rural families to rely on schools for STEM access far more than urban families do.

Additional priorities for rural parents

Rural parents also look beyond individual subjects to what comes next. Sixty-six percent value service learning and community service. Sixty-five percent consider college and career exploration important, and a majority (58%) view work-based learning experiences such as internships and apprenticeships as important. Higher still, 85% place importance on opportunities to develop communication, teamwork, critical thinking, leadership, and entrepreneurship skills (see Figure 11). Rural parents are clearly focused on preparing their children for work and adult life, and this presents an opportunity to position STEM programs as vehicles to deliver on those priorities.

Rural parents report strong satisfaction with opportunities to build skills like communication, teamwork, critical thinking, and leadership (81%, all), and more moderate but still majority satisfaction with college and career exploration (58%) and work-based learning experiences (54%). These findings point to a STEM gap rooted in supply rather than demand—one that targeted investment can close.

Figure 10. Where afterschool STEM happens depends on community type

Percentage of parents with a child in an afterschool program that offers STEM reporting where the program takes place, by community type:

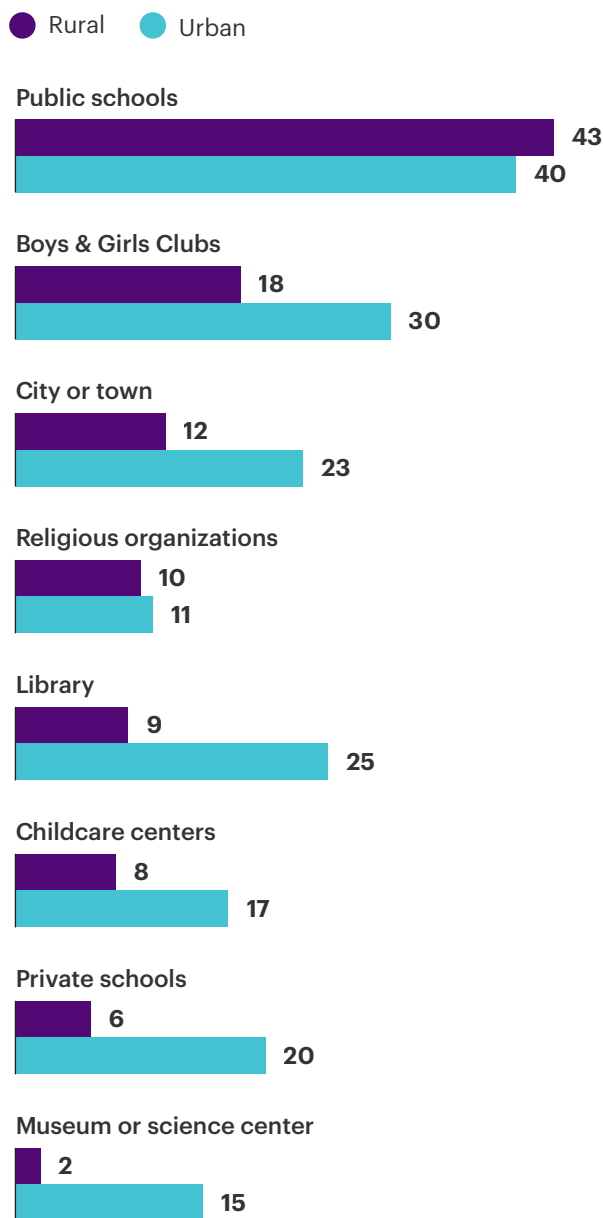
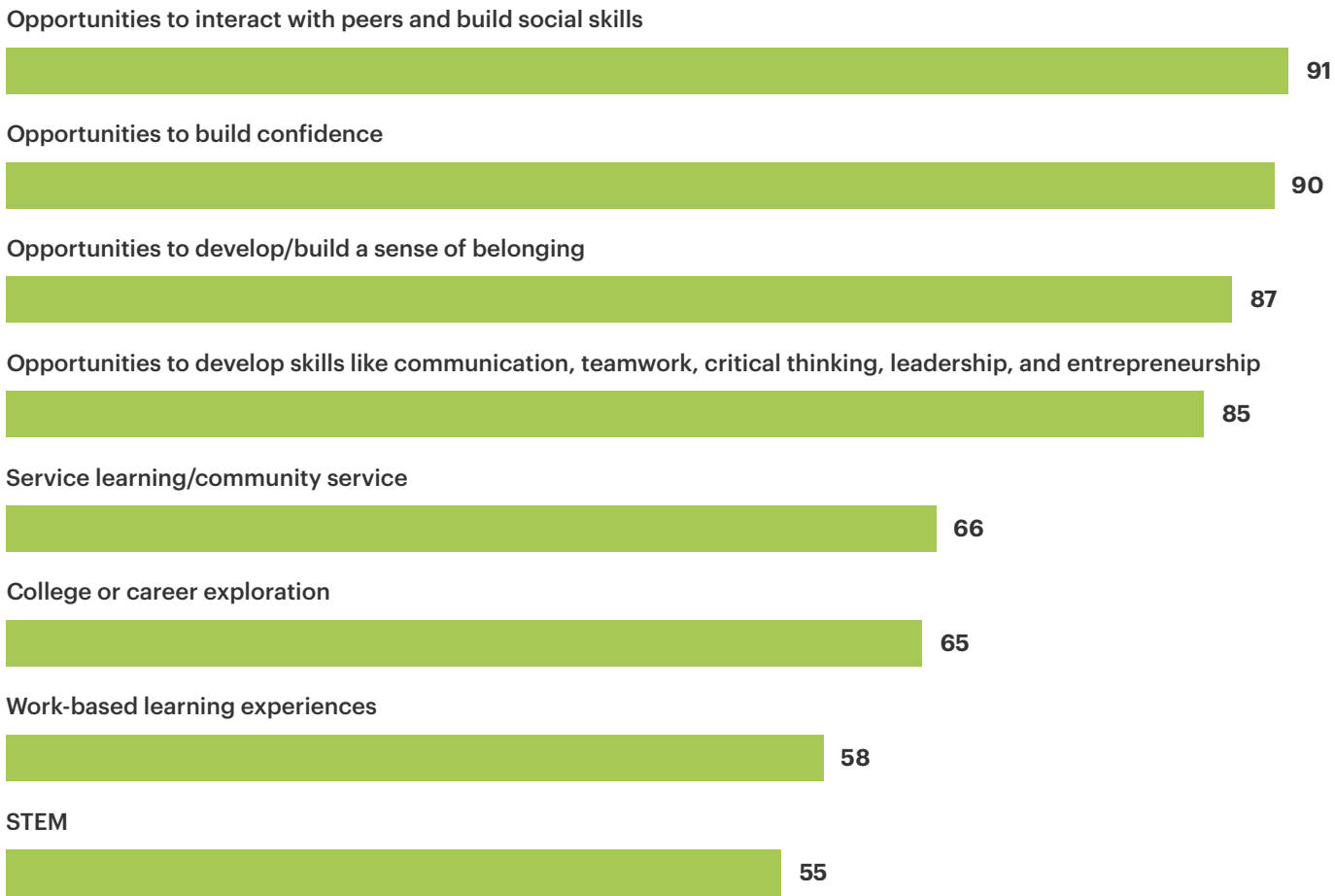


Figure 11. Rural families prioritize opportunities to build future-oriented skills when selecting an afterschool program

Percentage of parents in rural communities reporting the following topics as extremely or somewhat important in their afterschool program selection:



AI TOUCHES RURAL AREAS TOO

AI is becoming ubiquitous across nearly every sector of the economy, not just in traditional science and technology hubs. Agriculture is a clear example: Farmers increasingly use AI tools to monitor crop health, detect pests and disease, and guide decisions about water, nutrients, and harvesting at the level of a single field or patch of soil. But the same shift is reaching other parts of rural economies. In healthcare, AI paired with telemedicine is helping bridge the distance between rural patients and specialists, supporting earlier diagnosis and ongoing care for people who might otherwise travel hours to reach a provider. Small and medium-sized manufacturers, many of them in rural areas, are adopting AI tools to maintain equipment and increase productivity; and the workers running these operations increasingly need to blend traditional manufacturing know-how with digital skills like data analysis and interpreting AI-generated insights. Across all of these, the skills to understand and work alongside these technologies are quickly becoming as relevant in rural communities as in any city. Preparing young people for an AI-enabled economy is not just an urban concern; it is a national one, and afterschool programs that build STEM and AI literacy have a role to play in every geography.^{10, 11, 12}

Recommendations

1. **Increase investment in afterschool and summer programs serving rural communities**, with particular attention to the most geographically isolated families, for whom transportation, staffing, and infrastructure present structural barriers that go beyond per-pupil funding.
2. **Expand STEM-specific funding and support for rural programs**, prioritizing the subjects with the greatest opportunity for growth, including science, technology, and computer science.
3. **Support greater virtual, hybrid, and mobile programming models** that can reach families in communities where in-person STEM infrastructure is limited or absent.
4. **Encourage universities, science centers, industry partners, and other STEM-rich institutions to develop place-based and career-connected programming** that reflects the industries and environments rural communities know well, including agriculture, environmental science, energy, and advanced manufacturing.
5. **Ensure that rural communities are explicitly included in STEM equity frameworks and funding priorities** at the federal and state levels, alongside urban communities with high unmet demand for afterschool and summer programs.



Photo credit: NASA/Charles Beason



Boys & Girls Club of the Flathead Reservation and Lake County

Ronan, Montana

The Boys & Girls Club of the Flathead Reservation and Lake County brings daily STEM programming to K-12 students across three afterschool and summer club locations in the Mission Valley of northwestern Montana.

A dedicated STEM coordinator cycles through all three clubs each week, working with two age groups per day to deliver hands-on programming that keeps students engaged and coming back. Students learn basic coding and problem-solving using OzoBots, Sphero Bolts, and small drones and explore astronomy through a mobile planetarium and smart telescope. Logic challenges, brainteasers, and puzzles round out the experience, sharpening critical thinking skills in ways that feel more like play than instruction. In addition to a teen entrepreneurship project, the club also runs a LEGO FIRST robotics group and, in partnership with CodeGirlsUnited, offers a coding class for girls in grades 4–8.

What keeps students coming back is the technology itself and the freedom to explore it. Many students finish a STEM lesson and immediately ask if they can keep going and build something of their own.



Photo credit: Boys & Girls Club of the Flathead Reservation and Lake County

The program was made possible in part through support from the local tribal council, which recognized early on the importance of STEM access for tribal youth and helped fund the STEM coordinator position. In a rural area where such resources can be hard to come by, the club's commitment to hands-on, technology-rich programming is helping ensure that geography is no barrier to a young person's STEM future.



Children Learning through Outdoor Experiences (ChLOE)

Multiple locations; headquartered in Knoxville, Tennessee



Photo credit: Children Learning through Outdoor Experiences (ChLOE) Media

Children Learning through Outdoor Experiences (ChLOE) is a national network connecting young people to STEM through hands-on learning in outdoor and agricultural settings. Working in partnership with 4-H and university extension programs, ChLOE delivers enrichment experiences during afterschool hours, weekends, and summer camps. ChLOE uses agriculture and natural resources as the vehicle for STEM learning aligned to state and national education standards.

Students in ChLOE programs don't just read about ecosystems. They roll over fallen logs to investigate soil health and biodiversity, wade into streams with dip nets to assess water quality, and fly drones to solve real agricultural challenges. Older students explore connections between AI and food production through weekend residential

camps, examine cybersecurity concepts in agricultural contexts, and use livestream data to build mathematical models tied to an active environmental restoration project in their own community.

Programs are led by educators with expertise in both agriculture and science instruction and are intentionally designed to complement what students are learning in school. At partner sites like Lone Oaks Farm in west Tennessee, students return year after year, building knowledge and observing real change in the natural world around them.

For young people in rural communities, ChLOE's programs offer rare access to hands-on STEM exploration and a direct connection between the land they live on and the science that explains it.

STEM and older youth: Future preparation top of mind for parents

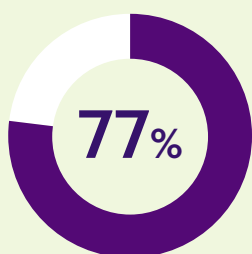
- ▲ Parents of teens are focused on preparation for what comes next: college and career readiness, real-world work experience, academic support, community engagement, and durable skills.
- ▲ Parents of older youth prioritize the STEM fields that are commonly seen as most marketable: computer science and technology.

As children get older, they have many options for how they might spend their time outside of school. A majority of middle school and high school youth engage in organized sports, art or music lessons, and clubs focused on specific hobbies or interests such as chess and robotics. Many high school students also undertake paid employment, apprenticeships, and internships during the afterschool hours. Consequently, they participate in afterschool

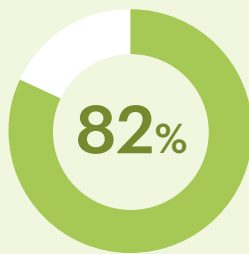
programs as defined by the *America After 3PM* survey[‡] at lower rates compared to elementary school students.[§]

But parents of youth in middle school and high school who participate in afterschool programs highly value STEM as an option, especially for certain subjects that may contribute to their future career and workforce skills. These parents strongly agree that afterschool programs help their children gain interests and skills related to STEM.

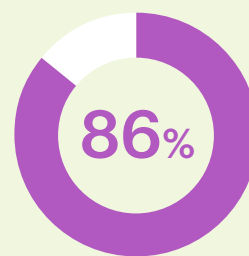
PARENTS WITH A CHILD IN AN AFTERSCHOOL PROGRAM AGREE THAT AFTERSCHOOL HELPS CHILDREN GAIN STEM INTEREST AND SKILLS, AND THIS AGREEMENT RISES AS CHILDREN GET OLDER



Parents of elementary schoolers



Parents of middle schoolers



Parents of high schoolers

[‡] The *America After 3PM* survey defines an afterschool program as one that children attend regularly and provides a supervised, enriching environment in the hours after the school day ends (typically around 3 p.m.). Individual activities like sports, special lessons, or hobby clubs and childcare facilities that provide supervision but not enrichment are not included in this definition.

[§] Although older youth participate in afterschool programs at lower rates than younger children, almost half of afterschool program participants are middle and high schoolers: Among children who participate in afterschool programs, 55% are in elementary school, 21% in middle school, and 24% in high school. The unmet demand for afterschool programs is also high across grade levels: Among elementary school students not in an afterschool program, 58% would be enrolled by their parents, as would 49% of middle school students and 38% of high school students not in an afterschool program.

Parents of older youth prioritize STEM, especially computer science and technology

Parents of teenagers who participate in afterschool programs show a shift in priorities as their children get older—they value programs that prepare their children for the future. Overall, 69% of parents of high schoolers say STEM is an important factor when selecting an afterschool program, compared to 62% of elementary school parents. But the aggregate number understates what’s happening beneath the surface.

Computer science tells the clearest story about this shift. Just over half of elementary school parents (53%) say computer science is an important selection criterion. By high school, that figure climbs to 68%, a 15-point increase. The degree to which it is a priority rises too: Forty-one percent of high school parents say computer science is extremely important, compared to 25% of elementary school parents. Technology follows nearly the same trajectory, rising from 55% among elementary school parents to 69% among parents of high schoolers (see Figure 12). This upward trend is notable because computer science and technology are two of the subjects that have been most closely associated with the modern workforce and economic opportunity. Science and math, by contrast, are relatively stable across grade levels, suggesting parents view them as foundational at every age, rather than as skills that become more urgent as children get older.**

Availability of and satisfaction with computer science and technology in afterschool increase with grade level

Parents report that STEM opportunities in their child’s afterschool program dips modestly from elementary (93%) to high school (89%). All STEM subjects are available across grade levels, although the availability is not uniform across subjects or grade levels. Math and science lead availability overall at 87% and 85%, respectively. Computer science and technology, the two subjects parents of older youth are prioritizing, are also the two subjects where availability rises most noticeably with grade level. Computer science availability climbs from 75% among parents of elementary students to 82% for parents of high schoolers; technology follows a nearly identical path, from 74% to 81%. In this respect, programs appear to be responding to the demand signaled by families of older youth.

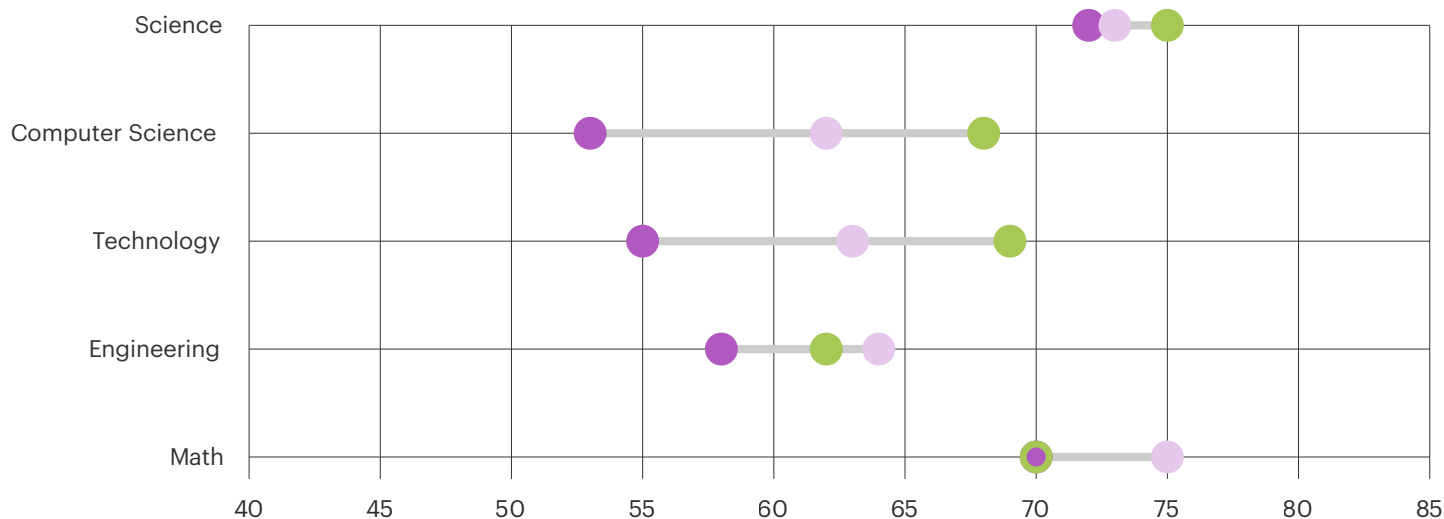
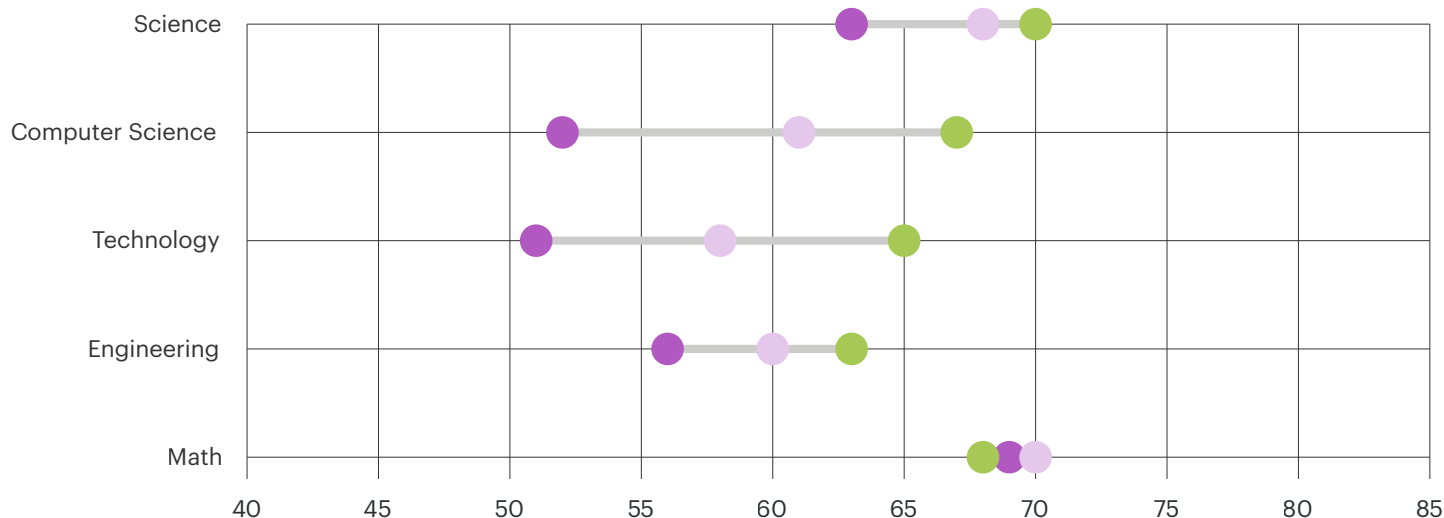
While the overall STEM availability drops slightly for high school students, programs serving middle school and high school students offer STEM activities more frequently than those serving elementary students. About 6 in 10 parents of high school and middle school youth (63% and 58%, respectively) report that their child participates in STEM activities at least two to three times a week compared to 49% of elementary school families. Older youth may be a smaller share of afterschool STEM participants, but they are not disengaged.

Parents of teens are paying attention to STEM in their child’s afterschool program. Overall satisfaction with STEM programming rises steadily from elementary school through high school—from 58% among parents of elementary schoolers to 66% among parents of high schoolers. High school students’ parents are more satisfied with science (70%) compared to elementary school (63%). Satisfaction with math is essentially flat across all the grades, averaging 69%. Computer science and technology—the two areas parents of older youth prioritize—show the sharpest gains in satisfaction, with computer science climbing from 52% to 67% and technology from 51% to 65% for elementary school versus high school (see Figure 12).

Even with rising satisfaction, there may be opportunity for growth when it comes to meeting the priorities of parents of older youth. Although overall STEM satisfaction improves, there are some slight gaps between what parents say matters most and their satisfaction levels with those topics, particularly for science and technology, where there is a 5- and 4-percentage-point gap for parents of high school age children.

A RAPIDLY SHIFTING AI LANDSCAPE

Parents responded to the *America After 3PM* survey in early 2025. There has been a tremendous shift in the landscape since then with the rapid advance and deployment of AI tools in the workplace. What remains true is that the foundational knowledge in the STEM subjects, including computer science, is critical for AI development, and significant expertise in these subjects will be required for roles in this fast-changing technology sector. But parents might view these topics differently today and may provide different responses to questions about their expectations for what afterschool programs must do to prepare their children for an AI-enabled world.

Figure 12. Parents of older youth want STEM and are more satisfied with STEM than parents of elementary-age children**GRADE OF CHILD IN AFTERSCHOOL** ● K-5 ● 6-8 ● 9-12**Percentage of parents reporting STEM is extremely or somewhat important in their child's afterschool program selection:****Percentage of parents reporting they are extremely or somewhat satisfied with STEM in their child's afterschool program:**

** The lower figures for the importance of computer science and technology among younger children's parents may reflect more than a difference in priorities: For this age group, some parents may weigh engaging with computer science and technology against concerns about screen time and online safety. This may ease as children grow older and parents begin to weigh those factors against their importance in preparing their children for the workforce.

Parents of older youth want to prepare them for next steps

In addition to these STEM topics, parents of teens also highly value college and career exploration: Eighty-one percent of high school parents consider it important compared to 64% of middle school parents; and 75% of high school parents consider work-based learning (including internships and apprenticeships) as important compared to 63% of middle school parents. The survey did not gather this data from parents of elementary school students.

Approximately 90% of parents of children at all ages value the important role afterschool programs play in building good social skills, confidence, and developing a sense of belonging. High school parents also highly prioritize the importance of durable skills such as communication, teamwork, critical thinking, and leadership, with 91% rating it as extremely or somewhat important compared to 89% of middle school parents and 84% of elementary school students (see Figure 13).

On a related note, parents also value service learning opportunities with the priority on this issue increasing as

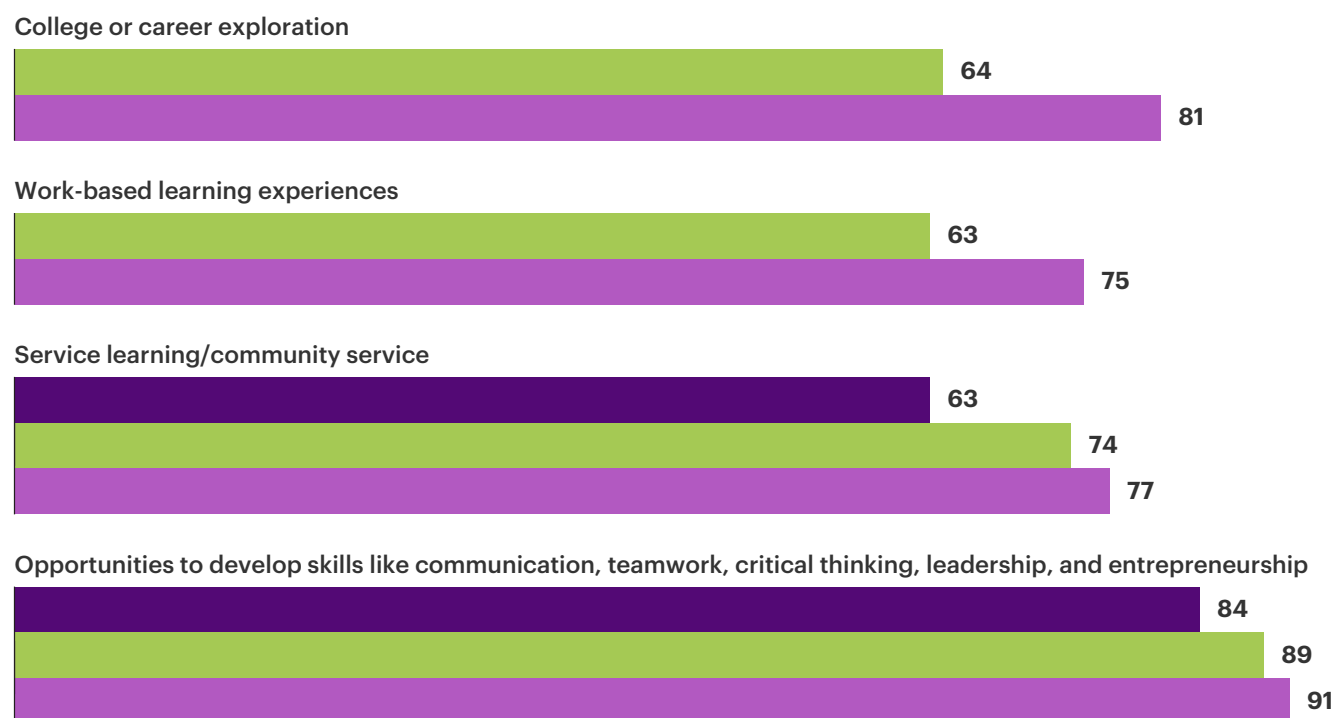
children get older, reaching a high of 77% for parents of high school students compared to 63% and 74% of parents of elementary and middle schoolers, respectively. Within the high school findings, the priority on service learning increases to 82% for 11th graders and 83% for 12th graders. Parent satisfaction with the service learning opportunities mostly aligns with the importance of this issue for them. Sixty-one percent of elementary school parents, 68% of middle school parents, and 78% of high school students are satisfied. At a more granular level, the satisfaction rises to 81% for 11th graders and 85% for 12th graders. Community-centered STEM projects in afterschool can help to meet the service-learning expectations that many high schoolers encounter.

That parents of older youth are more likely—and more intensely likely—to prioritize computer science and technology, as well as topics that focus on preparing youth for work and life, is not a coincidence; it signals the expectations parents have as they look ahead to the next steps for their child.

Figure 13. Parents prioritize future-oriented skills and opportunities as youth get older

Percentage of parents reporting the following factors as extremely or somewhat important in their selection of afterschool programs:

● K-5 ● 6-8 ● 9-12



Parents of older youth desire service learning opportunities, college exploration, and work-based learning, all of which share something in common: They are applied, future-oriented, and relational. Taking into account that these parents also prioritize STEM and specific subjects important in today's economy, families of teenagers are sending a consistent and clear signal about their hopes for how afterschool programs prepare their children for the workforce and life as an engaged member of their community.

This presents an opportunity for the field to design and implement more STEM programming in afterschool for teens that are rooted in real-world contexts, whether through community engagement projects or workplace internships. Showing how STEM fields can be applied to tackle problems teens care about can demonstrate the relevance of these fields in everyday life and increase interest in STEM fields among a broader group of youth.



Recommendations

1. **Invest in, facilitate, and incentivize partnerships to better serve older youth**, especially through career-connected learning, and offer more high-quality programs in computer science and technology.
2. **Address and remove the logistical barriers that keep teens out of workplace and community-based learning.** Because high school interns are minors, employers face legitimate child-protection concerns, and without clear guidance, many opt not to host teens at all. Other barriers include issues related to liability and time by trained staff to mentor and supervise youth, while also keeping up with maintaining their regular daily operations. Furthermore, school day schedules leave little room for youth to spend meaningful time during work hours with employers or mission-based organizations tackling the issues they care about. Policymakers and school leaders can ease both: clear policies that protect minors while giving employers a workable framework, paired with more flexible scheduling that lets teens learn outside the school building.
3. **Anchor STEM learning in the issues facing teens' own communities**, positioning these fields as tools for addressing problems young people already care about. When young people apply STEM skills to issues they care about, they are likely to show up more, stay engaged longer, and build real capability while creating change in their own communities. This kind of STEM-informed changemaking does double duty: It can deepen programming for older youth and equip them with durable skills they will carry forward while engaging them with their communities.



Gary Comer Youth Center

Chicago, Illinois

Located on the South Side of Chicago, the Gary Comer Youth Center (GCYC) is a comprehensive out-of-school time hub serving young people across five core program areas: academic success, arts and technology, culinary arts and nutrition, sports and leadership, and urban agriculture. Open year-round, six days a week, GCYC curates a physically and psychologically safe environment where youth discover their strengths. The youth then intentionally link these experiences to future careers and fields of study. In 2026, GCYC celebrated 20 years and over 14,000 young people served.

At the heart of GCYC's model is a commitment to youth voice and meaningful leadership. Participants don't just attend programs; they shape them.

The Youth Center encourages me to step up and build skills around collaboration and problem-solving. I speak up now about the stuff I care about, and I'm actually heard. With [leadership roles] in the program, I've stepped up despite my anxiety, and I've grown as a person.

— Tatianna, 18, two years at GCYC

For high school youth and young adults, the youth and young adult employment program offers a three-tier progression: the first two being foundations and exploration (grades 9–12) and the third is pathways, which offers two-year, U.S. Department of Labor-recognized apprenticeships in urban farming and culinary arts for ages 16–24.



Photo credit: Gary Comer Youth Center

Each of these are paid opportunities allowing youth participants to earn while they learn.

The GCYC is also home to the Best Buy Teen Tech Center, a free drop-in space for teens 13–18 years old. In the summer of 2026, it anchored a tech pre-apprenticeship for 30 young people, covering data science, AI, cybersecurity, and quantum computing, with partners including United Airlines, Xchange Chicago, Best Buy, Girl Security, and UChicago Data Science for All. Four additional programs will serve nearly 100 youth across podcasting, videography, animation, microelectronics, and robotics for youth ages 14–24.

In agriculture, GCYC recently launched its Food Sovereignty Hub, featuring a FarmBox hydroponics container farm, a four-season greenhouse, and an upgraded farmer's market plaza. Each of these initiatives provides experiential learning opportunities for youth while connecting agricultural education to civic-mindedness as the young people work to strengthen their local food systems. These programs empower and inspire youth through food, agriculture, and community leadership.



Boys & Girls Clubs of Western Pennsylvania—AI Pathways Institute

Western Pennsylvania



Photo credit: Boys & Girls Clubs of Western Pennsylvania

The Boys & Girls Clubs of Western Pennsylvania (BGCWPA) is one of the largest out-of-school time providers in the Pittsburgh region, serving more than 12,000 youth annually across Allegheny, Beaver, Fayette, and Somerset Counties. Founded in 1888, BGCWPA has long offered safe spaces, caring mentors, and life-changing programs and in recent years has made a deliberate push to bring cutting-edge STEM programming to the teens and older youth who need it most.

At the center of that effort is the Artificial Intelligence Pathways Institute (AIPI) Activation Camp, a free, three-week summer program for rising 9th–12th-grade students. The camp gives participants a hands-on foundation in what AI is, how it works, and how it's already shaping their everyday lives, from streaming platforms to robotics. Students explore real-world applications of AI through experiential learning, culminating in a competition day that features robotics challenges and AI-generated music creation. All students in the program are exposed

to STEM career opportunities, and all participants reported learning a new technique or skill.

First piloted by BGCWPA in 2019, AIPI has since grown into a national program that connects high school students underrepresented in STEM with modern computing and artificial intelligence. The approach is working as students leave with not just technical knowledge, but a new mindset about what they're capable of. BGCWPA has served over 400 students in the program since its inception.

As one youth participant put it: "What I took from this is that you really have to look at something before saying you can't do it. Because sometimes, all you need is to try."

BGCWPA's investment in AI and STEM programming reflects a broader commitment: ensuring that every young person in Western Pennsylvania, regardless of background, has access to the skills and opportunities that will define tomorrow's workforce.

Parents prioritize social and durable skills development over specific content areas, offering an opportunity to contextualize and position STEM more expansively

- ▲ Parents' top priorities for program selection center on safety, logistics, and durable skill development; STEM content areas rank lower but are on par with other content areas as well as college/career exploration and work-based learning.
- ▲ The durable skills parents most want, such as teamwork, critical thinking, and communication, also receive high satisfaction ratings, suggesting afterschool programs are delivering on these priorities.
- ▲ These skills are gaining new economic urgency as AI reshapes the labor market. The human-centered capabilities afterschool programs develop are increasingly what employers want.
- ▲ STEM is not in competition with these priorities; it is a vehicle for fostering them while also developing the content knowledge and skills needed for life and work today.

When parents choose an afterschool program for their child, they want their child to be safe, to feel like they belong, to build friendships, and to develop the confidence and skills to navigate an increasingly complex world. These priorities are remarkably consistent across income levels, geographies, and backgrounds. Understanding where STEM fits within this hierarchy and how it connects to what parents most want will help to make the case for high-quality STEM programming in afterschool even more compelling.

Parent priorities for their child's afterschool program

Parents seek afterschool programs for their children for a variety of reasons. Safety, caring staff, and convenient hours form the foundation; these are the baseline conditions any family requires before considering other factors. But parents are also looking for more: Opportunities to build confidence, develop friendships, and grow social skills rank among the highest priorities, with at least 9 in 10 parents rating each as extremely or somewhat important. These are central to what parents expect their child's afterschool program to deliver.

Specific content areas, including STEM, rank lower in this hierarchy. STEM as a whole is rated extremely or somewhat

important by 65% of parents, approximately 25 percentage points below the top-tier priorities. Individual STEM subjects track closely with other content areas, including music and art (68%), college or career exploration (73%), and work-based learning experiences (69%) (see Figure 14).



Contextualizing and positioning STEM within the landscape of priorities

Within this set of priorities, one category stands out for what it reveals about both parent values and program performance. The durable skills parents most want for their children, such as communication, teamwork, critical thinking, and leadership, are not only rated as extremely or somewhat important by 87% of parents, they are also among the highest-rated areas of satisfaction, with 82% of parents reporting programs are delivering on them. This is a compelling alignment and suggests that afterschool programs are already doing very well at something parents care deeply about (see Figure 14).

This is especially noteworthy as what parents want for their children and what a changing economy demands today are converging. The durable skills that rank highest in parent priorities (communication, teamwork, critical thinking, and leadership) are the same capabilities employers increasingly cite as essential in an AI-enabled workplace. Afterschool programs, rooted in a positive youth development framework, are already delivering on both counts and are very well positioned to support youth in the new landscape.

But durable skills do not develop in the abstract. They emerge when young people work together to solve a problem, test a hypothesis, debug a circuit, or design a solution to a real-world challenge. Content is not in competition with the skills parents want: It is the context in which those skills are built. STEM programming, done well, is a powerful vehicle for developing exactly the capabilities parents prioritize.¹³ A child learning to code is also learning to persist through failure. A team engineering a bridge is also learning to think critically, communicate, and collaborate. And when young people apply STEM skills to real challenges in their own communities—whether through service learning or civic engagement projects—the connection between content and skills becomes even more tangible. Learning that is grounded in place and purpose embodies interdisciplinary engagement, which is essential for high-quality learning, and reflects how work is conducted in the real world.

The skills and the content are inseparable, and STEM programs in afterschool can help young people gain both the content knowledge and the durable skills they need to thrive in the modern world.

Against this backdrop, parent satisfaction with specific STEM activities points to both progress and opportunity. Math activities rank highest in satisfaction at 69%, followed by science learning at 66%. This is on par with other activities like tutoring (66%) or enrichment areas like music and arts (69%). Satisfaction is lower for technology (56%), engineering (58%), and computer science (57%), suggesting these subjects may be less consistently delivered or less visible to parents in their current form. Taken together, STEM satisfaction trails the high marks programs receive for durable skill outcomes. Although this gap is similar to other activities and content areas asked about in the survey, it presents an opportunity for growth for the afterschool field, highlighting the importance of drawing connections between content and the development of skills.

The combination of robust content knowledge that allows youth to distinguish fact from fiction coupled with durable skills is the essential currency needed to navigate work and life and is even more critical in an AI-enabled world. Supporting program design that develops rigorous STEM content knowledge and technical skills alongside durable skills and investing in staff capacity to do this intentionally and visibly will help youth gain the diverse but connected competencies they will need in the modern world. This approach will continue to meet parents' priorities while making the connection to the content clearer.

Figure 14. Parents prioritize and are satisfied with opportunities to build durable skills more than content-specific opportunities in their child's afterschool program

Percentage of parents reporting the following factors as extremely or somewhat important in their selection of afterschool programs and that they are extremely or somewhat satisfied with the offering:

● Extremely/somewhat important ● Extremely/somewhat satisfied

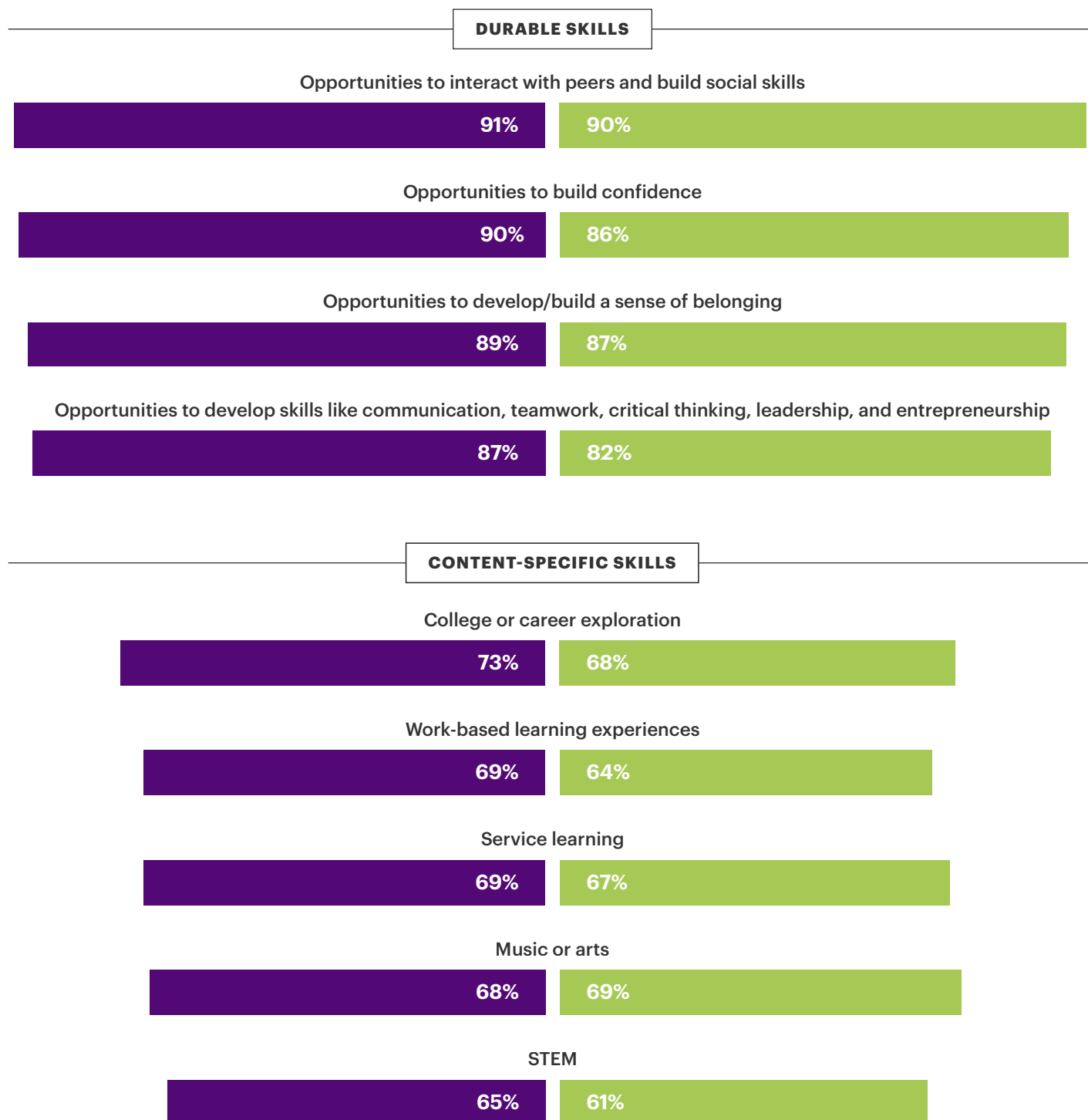




Photo credit: Jasmine Shah, for Gary Comer Youth Center

Recommendations

- 1. Help programs articulate the connection between STEM content and the skills parents most want.** Parents place a higher priority on safety, belonging, and durable skills development than on STEM when choosing their child's afterschool program. But afterschool STEM can deliver on all of those priorities when programs make the connection explicit. Program and curriculum designers should support providers in communicating clearly with families about how STEM builds the confidence, teamwork, and critical thinking they are already seeking. This will build support among both parents and policymakers.
- 2. Invest in professional development that equips staff to deliver STEM as a context for whole-child development and position afterschool as an AI-era institution.** Afterschool programs are already developing the human capabilities that matter most to parents as well as employers. Investments in professional development that helps staff intentionally link STEM programming to durable skills-building and community-connected learning will increase recognition of the afterschool field as an institution uniquely suited to this moment as youth navigate an AI-enabled world.



Sawhorse Revolution

Seattle, Washington

What does it look like when young people are trusted to build the world around them? That has been the question at the heart of Sawhorse Revolution, a Seattle-based out-of-school time program. Founded as a summer camp in 2010 to reclaim hands-on learning for a generation losing that access, Sawhorse teams students with professional carpenters and architects to complete real community projects. Since its founding, Sawhorse Revolution students have completed 83 projects and engaged more than 1,700 young people. From pioneering Seattle's first tiny homes for people experiencing homelessness to building boats that clean up a local Superfund river site, young people are creating genuine community impact and engaging in authentic STEM learning along the way.

At Sawhorse, every community project is a classroom that spans disciplines. Roof slopes and building measurements teach math, architecture and design reinforce engineering concepts, and history grounds students in community need and context. But it is not only the content that students walk away with. The skill that surprises young people most is communication. Whether collaborating on a design, coordinating a team lift, or problem-solving mid-build, clear and consistent communication proves as essential as any tool on the job site. Students discover that construction is, at its core, a deeply human and relational endeavor and they leave with the ability to listen, advocate, and work through challenges together, skills that carry far beyond the worksite.



Photo credit: Christina Marie Hicks, for Sawhorse Revolution

The model is deliberately collaborative and intergenerational: Youth work alongside adult mentors, sharing the labor and the learning. Participants receive stipends and are trusted with real tools and real decisions—an act of respect that keeps them coming back.

One participant states, “I used to think of Sawhorse as an afterschool program that I just did like my other activities, with my friends, but this program made me realize it is so much more. The things we do together actually benefit others and can be passed down to other generations. I’ve seen the [value] of collective community work. That feels like something grand to me.”

As Executive Director Sarah Smith puts it: “The world needs repair, needs people who care about it, needs people who have the skills to see problems and fix them.” Sawhorse Revolution is building those people.

SUMMER HIGHLIGHT

Families place high value on summer STEM, yet those who want it most have the least access

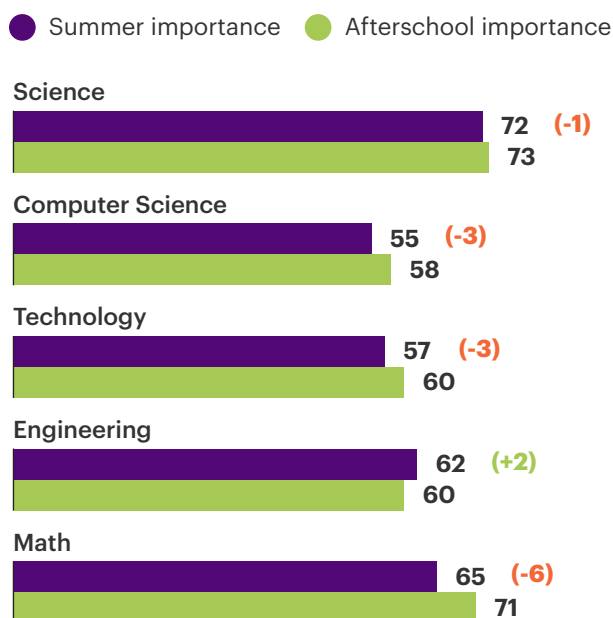
- ▲ Parents have different expectations for summer: Experiences that get children outdoors, active, social, and off screens top the list, and STEM ranks lower as a summer priority than during the school year. But science holds steady, perhaps fitting the hands-on learning approach that parents value.
- ▲ Demand for summer STEM is strongest among those least likely to have access to it. Black, Hispanic, Native American, low-income, and urban families rate summer STEM as most important and are the groups most concerned about summer learning loss. Yet children in low-income families participate in STEM camps at a fraction of the rate of their higher-income peers.
- ▲ Families who find a summer STEM camp are overwhelmingly satisfied (97%), but cost is steep: More than 2 in 5 (45%) pay more than \$200 per week, and free programming has declined since 2019.
- ▲ Support for public investment is near-universal: Ninety-five percent of parents with a child in a summer STEM camp favor public funding for summer learning programs in communities with few opportunities for young people.

The summer priority landscape looks different from afterschool in important ways.¹⁴ Parents are looking for experiences that will get their children outdoors and active, reduce their screen time, and build relationships. The most important factors parents are seeking from their child's summer program are dominated by experiential and developmental outcomes: social skills (94%), less screen time (94%), building confidence (94%), developing peer relationships (93%), access to physical activity (92%), and being outdoors (88%). All of these outcomes rate even higher for summer than they do for afterschool programs during the year. Safety and caring staff remain at the very top (96% for both), also higher than afterschool.

Academics and STEM are secondary considerations. The data suggest that most parents see summer as a time for holistic growth and active engagement, and not just an extension of the academic school year. While there is a modest decline for most STEM topics compared to their priority for afterschool programs, the priority for math dips more (by 6 points) from 71% in afterschool programs to 65% during the summer (see Figure 15).

Figure 15. STEM importance for summer activities compared to afterschool programs

Percentage of parents reporting STEM as extremely or somewhat important when selecting their child's afterschool program compared to their summer experience:



Who takes part in summer STEM activities?

Sixteen percent of households with a child in a structured summer experience report that at least one of their children attended a summer STEM camp. Because households often include multiple children, the child-level figure is smaller: Three percent of children in summer programs, or roughly 360,000 of the 12 million children in structured summer experiences, took part in a STEM camp. Both figures are essentially unchanged from the summer of 2019. There are differences in participation rates by age, race, and community type, as well as income level (see Figure 16).

Household income makes a significant difference in whether children participate in a summer STEM camp or not. Twenty percent of high-income households with a child in a summer program say their child was in a STEM camp, compared to 11% of low-income families. At the child level within these families, the gap is even starker: Seven percent of high-income children participated in a STEM camp, compared to 4% of middle-income and just 1% of low-income children.

Figure 16. STEM Camps by the Numbers

2.9 weeks
Average number of weeks during the summer

5.1 hours
Average hours per day

\$301
Average cost per week

Participation

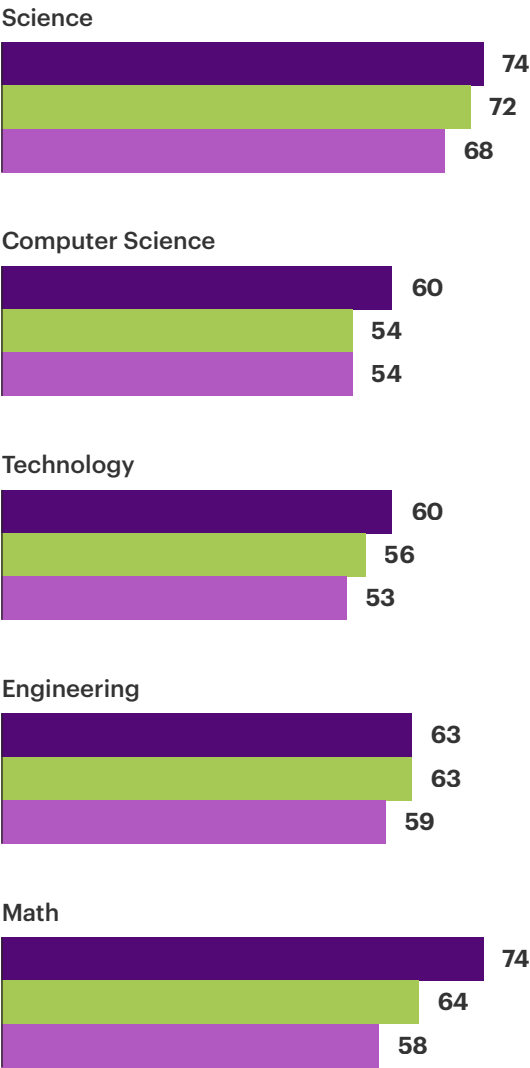
- Elementary schoolers: **17%**
- Middle schoolers: **17%**
- High schoolers: **14%**
- Low-income: **11%**
- Middle-income: **17%**
- High-income: **20%**
- Rural households: **12%**
- Suburban households: **16%**
- Urban households: **19%**
- White: **16%**
- Black: **14%**
- Hispanic: **18%**
- Asian American: **24%**
- Native American: **24%**



Figure 17. Low-income parents want STEM to be a part of their child's summer experience more than high-income parents

Percentage of parents reporting STEM as extremely or somewhat important when selecting their child's summer program, by income level:

- Low-income families
- Middle-income families
- High-income families

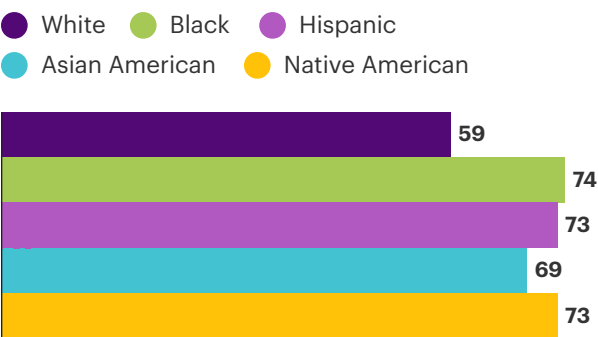


STEM is a less important priority in the summer, but summer learning loss is a concern for some communities

The importance families place on STEM learning during the summer varies across grade bands and communities. In an interesting reversal from parents' priority on STEM for afterschool programs, younger kids' parents prioritize summer STEM more than parents of older youth. This is the opposite of the afterschool pattern, where parents of students in older grades valued STEM more on average. Summer also reveals an income divide that is absent during the school year. Where family income made almost no difference in the importance parents place on afterschool STEM, lower-income families place greater importance on summer STEM than higher-income families (see Figure 17). Black and Hispanic parents also desire summer STEM opportunities for their kids more than White parents (see Figure 18).

Figure 18. Parents want STEM to be a part of their child's summer experience, but there are differences by race

Percentage of parents reporting STEM as extremely or somewhat important when selecting their child's summer program, by race:



While STEM may not be a very high priority for summer, preventing summer learning loss is clearly a concern for some parents and registers as an issue they are looking to address. There is a significant racial difference in this expectation as Black (87%), Native American (84%), and Hispanic (81%) families consider it much more important than Asian American (71%) or White families (68%). Lower-income families are also more likely to value keeping their children from losing academic ground over the summer. Seventy-four percent of low-income families say math activities are important to them for the summer, compared to 58% of high-income families. Summer math appears to be most important for Black (79%) and Native American (83%) families, showing an 18-point and 22-point gap respectively with White families (61%). This points to an opportunity to frame summer STEM engagement as opportunities to both provide enjoyable hands-on and fun experiences for kids while also helping to combat summer learning loss.

Almost all parents (97%) with children in summer STEM camps are satisfied with their child's experience and 95% of them favor public funding for summer learning programs for all kids.

Cost of summer STEM

Cost remains a substantial consideration for families with a child in a summer STEM camp. Forty-five percent of families of all income levels report paying more than \$200 per week. Costs vary by community type: Roughly half of suburban and rural families (51% and 50%, respectively) pay more than \$200 per week, compared to 27% of urban families, with more urban families reporting moderate weekly costs. Compared to the summer of 2019, the average weekly cost of a STEM camp declined slightly, from \$317 to \$301, making STEM camps a rare structured summer activity to see a drop in cost. At the same time, free STEM camps have become less common: Six percent of families reported that their child's camp was free in 2024, down from 11% in 2019.



97%

of parents are satisfied with their child's summer STEM camp experience



95%

of parents with a child in a summer STEM camp favor public funding for such programs in communities that have few opportunities for children and youth

Summer STEM camps occur across the community

While public school buildings were the most commonly reported location for afterschool programs, summer STEM camps are spread across the community more widely. Sixteen percent of parents of children in summer STEM camps reported their program took place at a museum or science center, compared with 9% of parents of children in school-year afterschool programs. Colleges and universities were also a common setting for summer STEM camps, reported by 22% of parents (see Figure 19).[¶]

Figure 19. Top 5 locations for summer STEM camps

Percentage of parents reporting where their child's summer STEM camp takes place:

1	Public or private school	30%
2	College or university	22%
3	Community-based organization	19%
4	Museum or science center	16%
5	City or town (parks and recreation departments)	15%

Recommendations

1. **Policies should direct summer funding to the communities where demand for STEM most outpaces access.** The families who place the highest importance on summer STEM—low-income, Black, and Hispanic families—are among the least likely to have a child in a STEM camp. They are also the groups most concerned about summer learning loss. Dedicated summer learning funding streams can close a gap that families themselves have identified.
2. **Treat affordability as the central lever.** With nearly half of families (45%) paying more than \$200 per week and free programming shrinking, public and private investment in scholarships, sliding-scale fees, and free community-based offerings will reach the families currently priced out, particularly given that high satisfaction suggests the program model works once families get in the door.
3. **Design summer STEM around what parents want from summer.** Science holds its importance through the summer, while math drops, which points to programs needing to be hands-on, outdoors, social, and screen-free. Programs that lead with the experiential character of STEM, rather than its academic utility, are meeting parents where they are while still delivering the learning-loss protection that many families, especially Black, Hispanic, and Native American families, are explicitly seeking.



[¶] The summer and afterschool surveys asked about program location differently; colleges/universities were not an answer option in the afterschool questionnaire, so the two cannot be directly compared.



The STEM Connection—Summer Camps

Indianapolis, Indiana

The STEM Connection (TSC) offers summer STEM experiences in nature, connecting learning to the living world. Set at Moore Road Farm in Indianapolis, Indiana, TSC offers six weeks of summer camp programming for students in kindergarten through 9th grade, using the farm's river, forest, fields, and garden as a living classroom where STEM comes to life in ways no textbook can replicate.

Each week of camp is designed around state academic standards, but the experience goes well beyond what students encounter during the school year. Activities are hands-on and inquiry-driven, and every single one carries a literature connection, weaving storytelling and language arts into the outdoor exploration. The result is programming that is rigorous, interdisciplinary, and genuinely memorable.

What keeps campers coming back is the feeling of belonging from the moment they enter the farm. Small group sizes, genuine relationships with caring adults, and time spent in nature all create the kind of environment where young people feel safe to explore, ask questions, and take risks. TSC serves around 9,500 participants annually, with a deliberate focus on reaching those underrepresented in STEM careers, including through its STEM Future Leaders program, which builds leadership and employability skills, offers service learning, and connects students with real STEM career professionals. Additionally, high school and young adult participants can qualify for paid summer internships.



Photo credit: The STEM Connection

TSC also offers high-impact year-round programs, including field trips and “reverse field trips,” where facilitators travel to schools to lead activities. TSC breaks down barriers and extends learning through hands-on activities in STEM kits.

Conclusion and reflections

The picture of STEM programming in afterschool that emerges in this report is one of astonishing growth. Public and private investment in this issue ramped up substantially beginning approximately 15 years ago. A few years later, in 2014, *America After 3PM* began asking parents about STEM opportunities in their child's afterschool program, and 69% reported such opportunities. That figure now stands at 92%, a record high representing an estimated 6.4 million children and near universal adoption of STEM in afterschool today.

This growth shows what can result when a concerted effort is made to support the afterschool field to deliver content-specific programming. It is evidence of the nimble and responsive nature of the afterschool field: when supported to take on a new priority, it can work wonders. Some afterschool programs have offered, or even focused on STEM for several decades, but the larger field took on an entirely new content area and made it nearly universal. And it did this without losing the hands-on learning and strong youth-adult relationships that make afterschool distinct. That capability, the ability to adopt and scale what young people need, is itself one of the most important findings of this report.

But this very real progress is not evenly shared. A major barrier remains access to afterschool programs in the first place—more than 3 in 4 kids whose parents want them in an afterschool program are missing out entirely. Low-income families are especially unable to enroll their kids, and these children miss out on the plethora of benefits that afterschool programs provide, including STEM engagement.

As this report shows, STEM is now largely available once a child gets into a program: Children across income levels, races, grades, and gender all have opportunities to engage with STEM. But there are some very real differences in the STEM experiences for some groups. Rural parents report the least availability and satisfaction with what they can access, especially parents who live more than 30 miles from a metro area. They are not indifferent to STEM and demonstrate eagerness to ensure their children are prepared for the future.

Breaking down the findings by the component subjects of STEM—science, technology, engineering, math, and computer science—provides us with valuable information to examine needs and opportunities at a deeper level. Computer science, technology, and engineering trail science and math on every measure: availability, parent priority, and satisfaction. For girls, there is a lower parental emphasis on these subjects—an issue to pay attention to.

Examining the experiences of older youth is also revealing. As children move toward decisions about college and career, their parents increasingly prioritize the applied, future-oriented opportunities that connect learning to life: computer science and technology, but also work-based learning, career exploration, service learning, and the durable skills of communication, teamwork, and problem-solving. The slight gaps between the importance parents place on these topics and their satisfaction with their child's experience points to an area of potential growth. There is a clear need for more programs for teens that are rooted in real-world experiences, both for career preparation and for life as an engaged citizen.

Summer sharpens some of these dynamics and also shows some interesting differences with programs during the school year. Parents look for summer experiences that get children outdoors, active, social, and off screens; STEM ranks lower as a summer priority than during the school year. Those who place the highest importance on summer STEM—low-income, Black, and Hispanic families—are also those most concerned about summer learning loss and least likely to have a child in a summer STEM camp. Availability of programs and cost are the barriers: Fifty-one percent of the children whose parents want a summer program cannot access one, and 45% of families pay more than \$200 a week even as free programming has grown scarcer. Ninety-seven percent of parents who can enroll their child in a summer STEM camp are satisfied, underscoring the need to tackle these barriers.

Taken together, these findings tell a story of what is possible when there is commitment to supporting the afterschool field to deliver on targeted issue areas. The positive youth development approach of afterschool programs lends itself beautifully to engaging youth successfully in content areas. The sustained advocacy, funding, and support for STEM program implementation over the past 15 years have led to a remarkable achievement—a nearly universal adoption of STEM programming in afterschool. We must maintain this

momentum in a landscape where AI is spreading rapidly and there is a shift to increased state investments in both education broadly as well as afterschool.

The growing use of AI is increasing the need for STEM literacy rather than decreasing it. Knowing whether to trust what an AI tool produces, whether a number is plausible, a claim is sound, a method is appropriate, requires exactly the content knowledge and reasoning that these tools appear to make effortless. AI does not replace STEM literacy but instead raises the premium on it. Those who can think deeply about AI, understand how it works, and contribute to developing its new capabilities in a thoughtful manner will pull far ahead of those who can only use what others are producing. This makes the gaps we have identified even more consequential. STEM literacy and proficiency have been the currency needed to participate in the modern world and economy for several decades now. But in an AI-enabled economy, those without this currency risk being priced out entirely. STEM literacy has become the foundational literacy young people need to navigate work, citizenship, and daily life; the children in families with the least access are at risk of being left even further behind. The case for closing these gaps is no longer only about equity of access. It is about whether every young person is equipped for an AI-enabled world.



Photo credit: Scientific Adventures for Girls



Photo credit: Sawhorse Revolution

It is encouraging that policymakers have recognized afterschool programs for their power to engage young people in these critical fields and are including it in legislation and funding priorities. We must maintain this momentum and continue our advocacy to increase access to afterschool programs and continually improve the quality of STEM offerings within programs. The policies and funding that built up STEM in afterschool at the national level are now also visible at the state level. A growing number of states are creating dedicated funding streams for afterschool and summer learning.^{15,16} Additionally, state competency frameworks like “Portrait of a Graduate” are reframing the outcomes that matter, prioritizing the durable, applied competencies, critical thinking, collaboration, problem-solving, and communication that high-quality STEM is built to develop.^{17,18} These frameworks describe, almost exactly, what afterschool already does. The opportunity now is to make that connection not only explicit in policy and funding but also to ensure it becomes standard so that afterschool is routinely included as an integral part of the STEM learning ecosystem.

Realizing that opportunity will take deliberate choices. Policymakers can ensure afterschool and summer programs are funded at the levels the demand warrants and also

written into the STEM research and education legislation and frameworks now taking shape. Funders can direct resources where the gaps are widest: rural and low-income communities, the subjects that lag, and the partnerships that bring the expertise of museums, universities, and industry to the programs families already trust. Programs and their partners can keep doing what this report shows they do well, while improving their offerings to meet the gaps and making the connection between STEM content and the skills parents most want unmistakable to families and policymakers alike.

The story of the past 15 years is one of a field that was asked to do something new and did it, thoroughly and well. The 6.4 million children engaging with STEM in afterschool today are the evidence. The task ahead is not to prove the model works; families who find their way to these programs have already told us it does. The task is to ensure that every young person, in every community, can get through the door and that the opportunity waiting on the other side prepares them for the world they now live in and will need to shape. The afterschool field has shown the will and the ability to step up. The work now is to make sure the investment, the policy, and societal will are there to maintain and accelerate this progress.

WHAT TO WATCH

Existing funding streams and bills in progress

Funding and support for STEM programs in afterschool come from a wide variety of sources across the federal government. While not comprehensive, the following list describes some key existing funding streams and bills worth keeping an eye on.

Existing funding streams:

21st Century Community Learning Centers (21st CCLC)

This program is the only federal funding stream dedicated to supporting local school- and community-based afterschool and summer learning programs. It supports nearly 10,000 local programs serving almost 1.4 million children nationwide, and 90% of 21st CCLC programs offer STEM learning.

[View Resource ↗](#)

Student Support and Academic Enrichment Grants

This grant program permits states and districts with the flexibility to provide well-rounded education programs, including STEM and computer science, to some of our most under-resourced students both inside and outside the classroom.

[View Resource ↗](#)

NASA's Office of STEM Engagement

This NASA office plays a major role in helping students from all backgrounds pursue successful STEM research and careers. It serves as a key partner for many afterschool programs, which often use NASA's space exploration mission as a hook to spark youth interest in STEM fields. Through these partnerships, the office helps translate that initial curiosity into lasting engagement with science and technology.

[View Resource ↗](#)

National Science Foundation's (NSF) Directorate for STEM Education (EDU)

EDU's programs support STEM education at all educational levels and in a variety of settings, including in afterschool. It is instrumental in advancing research and practice in afterschool STEM education. EDU historically housed NSF's *Advancing Informal STEM Learning (AISL)* program, which played a critical role in advancing our understanding of STEM learning in out-of-school time environments and led to a broad range of supports, including research providing insights into effective program design; how to document and measure program impact; innovations to test new professional development models that reach afterschool STEM educators in rural areas; and exploring community-centered interdisciplinary approaches to program implementation, just to name a few. These investments improved programming and seeded partnerships between communities and STEM-rich institutions such as science centers and universities.

[View Resource ↗](#)

National Oceanic and Atmospheric Administration's (NOAA) Office of Education

NOAA's STEM education initiatives, including the Bay Watershed Education and Training (B-WET) program, provide hands-on, place-based environmental and ocean science learning experiences for students, including through afterschool and summer programming, across coastal and inland communities.

[View Resource ↗](#)

WHAT TO WATCH

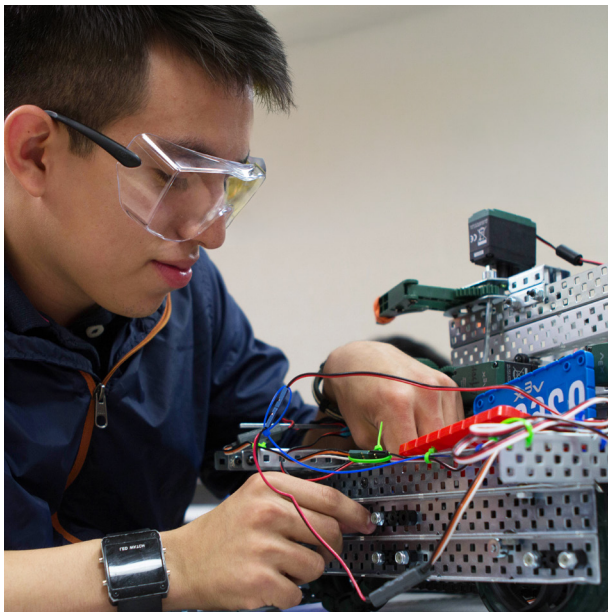
Existing funding streams and bills in progress

Existing funding streams (continued):

CHIPS & Science Act

The CHIPS and Science Act of 2022 authorized the *PreK-12 STEM Education* program, which supports research and development of innovative before-school, afterschool, out-of-school, or summer activities designed to encourage interest, engagement, and skill development in STEM. It also authorized the *Broadening Participation of Rural Students in STEM* program, which can fund research and development of programs to identify barriers to rural students' access to high-quality STEM learning and to develop innovative solutions to improve participation. It also included the *Next Generation Quantum Leaders Pilot Program*, which higher education institutions and nonprofits can use to offer education and training opportunities to the next generation of students and educators in schools as well as in informal learning settings.

[View Resource ↗](#)



Child Care Development Block Grant (CCDBG)

The Child Care and Development Block Grant (CCDBG) is the primary source of federal funding for childcare subsidies for low-income working parents of children up to age 13. CCDBG also funds efforts to ensure high-quality programs are available to eligible families. CCDBG is administered by the U.S. Department of Health and Human Services, and funds are passed through to state agencies that provide oversight.

[View Resource ↗](#)

Department of Labor's Workforce Pathways for Youth Program

This program supports out-of-school time organizations in providing workforce readiness programming for youth, including soft skill development, career exploration, summer and year-round job opportunities, and apprenticeships. It also enables partnerships between workforce boards and youth-serving organizations.

[View Resource ↗](#)

Department of Defense STEM

Through partnerships, this program provides curricular resources, professional development for educators, and supports STEM education activities in afterschool programs nationwide.

[View Resource ↗](#)

WHAT TO WATCH

Existing funding streams and bills in progress

Bills in progress:

U.S. Congress. (2025). H.R. 4999, 119th Congress: **Fusion Workforce Act**. Retrieved from <https://www.congress.gov/bill/119th-congress/house-bill/4999/text>

This bipartisan bill would support fusion education and related skilled technical workforce activities, including through informal STEM education experiences, such as afterschool programs. The bill supports informal hands-on learning opportunities relating to fusion sciences and engineering for pre-K through 12th grade-students in different learning environments; opportunities for fusion research for students and trainees by encouraging informal STEM education programs; professional development for STEM educators; among other things.

View Resource ↗

U.S. Congress (2026). H.R. 8516, 119th Congress: **American Leadership in AI Act**. Retrieved from <https://www.congress.gov/bill/119th-congress/house-bill/8516/text>

This bipartisan legislation would, among other things, support research activities to develop educational curricula and evaluation methods for AI literacy in K-12 education in both formal and informal educational settings. The bill also supports professional learning opportunities in the instruction of AI literacy for educators.

View Resource ↗

U.S. Congress (2026). S. 4030, 119th Congress: **Supporting Afterschool STEM Educators Act**. Retrieved from <https://www.congress.gov/bill/119th-congress/senate-bill/4030/text?s=1&r=1>

This legislation recognizes the vital role that afterschool, summer, and other out-of-school time STEM educators play in helping young people learn STEM and preparing them for future careers. The bill focuses on strengthening the recruitment and retention of afterschool STEM educators by providing targeted support to help improve their well-being, expanding professional growth opportunities, and increasing access to high-quality STEM programs for more youth. If passed, the legislation would create a dedicated grant program within the U.S. Department of Labor that would fund professional development scholarships for STEM programs in afterschool and help staff build their skills to advance their careers. The bill would also bolster statewide STEM support networks to further coordinate training resources and encourage peer-to-peer learning among aspiring educators, current STEM educators, and STEM professionals.

View Resource ↗

U.S. Congress (2026). H.R. 8268, 119th Congress: **Biotechnology for All High School Students Act**. Retrieved from <https://www.congress.gov/bill/119th-congress/house-bill/8268/text>

This bipartisan legislation would expand and enhance biotechnology education for high school students, including through afterschool programs.

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Methodology

America After 3PM is a large-scale, national tracking survey conducted every five to six years to examine the state of demand for afterschool and summer programs in the United States. The fifth edition of *America After 3PM*—which included at least 200 interviews in all 50 states and Washington, D.C., with U.S. parents or guardians with a school-age child living in their household—was conducted using a mixed-mode methodology to reach as many households as possible. This included mobile-optimized online surveys and supplementary telephone interviews where 200 completed interviews could not be reached using online panels.

Survey respondents were recruited using an online, nonprobability sample obtained via national opt-in consumer research panels. The survey was offered in both English and Spanish. Data were collected between January 31 and April 21, 2025. A total of 30,515 households were surveyed, and parents were asked how their child or children are cared for in the hours after school, participation in organized activities, and demographic

questions. A subset of 14,663 respondents were asked a series of follow up questions related to afterschool program experiences—including participation in STEM learning, barriers to afterschool program participation, and perceptions of afterschool programs—while 11,561 respondents were asked a series of follow-up questions related to summer experiences, interest in summer programs, and barriers to summer program participation. A combination of sources was used to determine quota and weighting targets, including the most recent U.S. Census American Community Survey and National Center for Education Statistics data. Quotas were set and final data were weighted to be representative of parents or guardians of children in kindergarten through 12th grade at the state and national levels by family income and race/ethnicity.

The overall margin of error for the child- and household level data is +/- < 1%. Projections for child-level data represent school-age children in the United States, based on the U.S. Census Bureau's October 2022 Current Population Survey.

Endnotes

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For more information, visit aa3pm.co

About the Afterschool Alliance

The Afterschool Alliance is working to ensure that all children have access to affordable, quality afterschool programs. Learn more at afterschoolalliance.org



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