

POLICY BRIEF:

Afterschool Programs are Essential Partners to Build AI Literacy & Proficiency

Federal policy momentum on artificial intelligence (AI) education is accelerating through initiatives such as the House Bipartisan Task Force on AI¹, America’s AI Action Plan², the White House Task Force on AI Education³, and the Presidential AI Challenge⁴, amongst others. At the same time, education and workforce leaders are reassessing what constitutes a well-rounded education to better align learning standards with labor market needs in emerging technologies.⁵

As AI becomes embedded in daily life it risks widening the gap between those who can use it effectively and those who cannot. To avoid this divide, young people and adults alike must be prepared to understand AI, apply it confidently, and engage with it responsibly and ethically. As AI fuels innovation and economic growth, equitable access to AI education—alongside foundational computer science, data science, and digital literacy—must be a policy priority.⁶

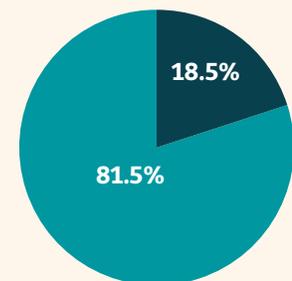
With 80% of young people’s waking hours spent outside the classroom, afterschool, summer, and other out-of-school time (OST) STEM programs (including libraries, science centers, and community organizations) are essential partners in expanding K-12 AI education.⁷ These programs provide safe, supportive environments rooted in principles of positive youth development that connect classroom learning to real-world applications and career pathways, helping build inclusive pathways into AI-related fields.⁸

Nearly 7 million students participate in afterschool programs nationwide, presenting a significant opportunity to expand AI literacy.⁹ STEM in afterschool is now widespread: in a survey of afterschool program providers conducted in Fall 2025, 90% of 21st Century Community Learning Center programs reported offering STEM learning opportunities.¹⁰ 77% of parents agree that afterschool programs help their children develop an interest in STEM and gain related skills.¹¹ Nationwide, afterschool programs are already preparing young people for the future workforce while fostering STEM-literate, engaged citizens. Programs such as STEMarts Lab in New Mexico, Scientiae in Florida, the Boys and Girls Clubs of Western Pennsylvania, and Technovation (a global program) are enhancing AI literacy and empowering youth to see themselves as creators and innovators, not just consumers.^{12, 13, 14, 15}

AFTERSCHOOL, SUMMER, AND OST PROGRAMS OFFER AN INNOVATIVE MODEL TO ENSURE EXPANDED, HUMAN-CENTERED AI EDUCATION BY:

- Fostering connection, character, and caring mindsets, grounded in positive youth development principles, when interacting with and learning about AI.
- Investing in the development of both technical STEM skills and transferable, durable skills, ensuring youth are future-ready.
- Strengthening youth voice, leadership, and agency, empowering youth as future leaders in STEM.
- Mitigating the potential negative impacts of AI by promoting in-person peer engagement and adult mentorship.

Learning Doesn’t Just Happen In School



Time spent in formal learning environments including school

Time spent in informal learning environments or settings outside of school

Source: The LIFE Center’s Lifelong & Lifewide Diagram accessible at <http://life-slc.org/>

The Afterschool STEM Hub, an initiative of the Afterschool Alliance, is a coalition of national organizations working to increase federal investment in afterschool STEM. We have developed a set of policy recommendations for Congress and the executive branch to accelerate the impact of OST programs in supporting an AI-literate, future-ready workforce. The Afterschool STEM Hub and our array of national, state, and local partners stand ready to ensure afterschool STEM programs and their associated educators are acknowledged and sustainably supported as critical partners in expanding AI education.

POLICY RECOMMENDATIONS

FEDERAL POLICYMAKERS SHOULD ENSURE THAT AFTERSCHOOL, SUMMER, AND OST PROGRAMS HAVE SUFFICIENT RESOURCES TO SUPPORT AI LITERACY AND CAREER EXPLORATION. IN PARTICULAR, FEDERAL POLICYMAKERS SHOULD:

- **Include afterschool programs in all legislative and programmatic AI education packages.** All students need to be immersed in emerging STEM concepts, such as AI, across a variety of settings to develop fluency and be competitive in the modern world. Afterschool and summer programs extend school-day learning in ways that resonate with youth.
- **Ensure that afterschool and summer STEM programs are included as eligible partners in K-12 industry collaborations.** As the federal government pursues increased public-private partnerships in K-12 education, afterschool, summer, and OST programs offer novel spaces and efficient mechanisms for industry partnerships that engage youth in emerging technologies and help with workforce development.
- **Support the development of and access to AI expertise within the afterschool field.** Afterschool STEM educators must have the resources, professional development, and social capital to facilitate the development of AI literacy skills, including in communities with barriers to digital technology access.
- **Invest in innovative ideas that streamline and enhance coordination and communication between school-day teachers and afterschool educators.** AI could be a powerful tool to improve communication among school-day teachers, afterschool programs, and families, not only alleviating educators' administrative burden but also better supporting individual student learning needs.
- **Include experts in afterschool, summer, and OST STEM education on committees and boards in the planning, decision-making, and implementation of federal and state AI and emerging technologies education plans.**
- **Incorporate youth perspectives and insights, including their views on safeguarding procedures, into the development and implementation of new education programs that integrate AI and other emerging technologies.**
- **Ensure our educational systems and youth-serving organizations have easy access to and can inform reputable best practices on protecting students when they engage in AI learning and when educators use AI to increase efficiency in learning spaces.**¹⁶ Youth should also be given the agency to opt out of having their data used within AI systems, and there should be provisions for youth to decide how they engage with AI when learning about AI literacy.¹⁷
- **Define and measure outcomes in afterschool differently than in formal settings, recognizing that a variety of interventions and outcomes are necessary to support youth learning.**¹⁸ The Dimensions of Success tool is utilized to measure STEM outcomes in afterschool, and should continue to be leveraged when measuring outcomes in AI literacy and career-readiness.¹⁹
- **Invest in and expand afterschool program models that enable youth-led AI activities focused on social good.** Evidence demonstrates that youth seek connection and a sense of purpose. They are more likely to be engaged and sustained in STEM when programs leverage STEM as a tool for positive community impact.²⁰ By expanding opportunities for youth to use AI to solve problems they care about, afterschool is an innovative space that draws youth in and excites them to engage with AI and emerging technologies.²¹

WHAT CAN CONGRESS DO?

- Within all relevant current and future AI and other emerging technology legislation packages, ensure that afterschool, summer, and OST programs, and their associated educators, are explicitly included as allowable recipients of funds and professional development resources. For example, the Fusion Workforce Act (H.R. 4999) offers a bipartisan model that invests in afterschool programs to expand emerging technology education and address future workforce needs.²² To this end:
- Pass the National Science Foundation (NSF) AI Education Act (H.R. 5351) and the LIFT AI Act (H.R. 5584) and ensure afterschool programs and afterschool educators are explicitly included as eligible grant recipients.^{23, 24}
 - Ensure afterschool educators are eligible recipients of professional development and resources within the AI Literacy and Inclusion Act (H.R. 3210).²⁵
 - Ensure afterschool programs are explicitly mentioned as eligible grant recipients within quantum education opportunities in the reauthorization of the National Quantum Initiative Act (S. 3597).²⁶
 - To ensure youth continue to have access to foundational computational literacy skills, reintroduce the bipartisan Data Science and Literacy Act (H.R. 1050) and expand its legislative text to include afterschool programs and afterschool educators.²⁷
- Within appropriations packages, continue to fully fund the Department of Education's 21st Century Community Learning Centers (21st CCLC; Title IV-B of the Every Student Succeeds Act -ESSA) and Student Support and Academic Enrichment (Title IV-A of ESSA) grant programs. Nearly 1.4 million youth rely on 21st CCLC programs, and Title IV-A ensures schools and afterschool programs have adequate resources for hands-on STEM learning.²⁸
- Through mechanisms such as tax incentives and granting requirements, incentivize corporate investments and partnerships that allow youth in afterschool and summer programs to access cutting-edge AI tools and technologies, mentors from relevant industries, and paid summer internships and apprenticeships.
- Direct federal funding opportunities for AI and other emerging technologies to include guidance on effective partnerships with K-12 settings, including afterschool and summer programs. Additionally, include a set-aside for local and state intermediaries, such as the 50 statewide afterschool networks, to broker relevant geographic connections between industry and program providers.²⁹
- Enable afterschool educators to access AI-related professional development through the Supporting Effective Instruction state grants (Title II-A of ESSA).
- Ensure that afterschool educators and leaders are consulted in future Congressional AI task force research, deliberations, and other activities.
- Congressional leaders drafting AI education and safety legislation should convene listening sessions with youth and seek young people's perspectives and feedback. Coordination with youth can be facilitated through afterschool programs or intermediaries and youth-voice convening bodies that elevate STEM education, such as through the 50-statewide afterschool network, STEM Next's Flight Crew, the Collective for Youth Empowerment in STEM and Society's youth consultants, or the Student Association for STEM Advocacy.^{30, 31, 32}
- Fund the development of evidence-based guidance and best practices to support afterschool educators in vetting AI tools for programmatic use and developing individual program AI policies. The Department of Education and the National Science Foundation should coordinate to develop a framework of best practices, and these should be updated at least every 3-5 years as new evidence and technologies emerge.

THE AFTERSCHOOL ACCESS ACT (H.R. 7093)

H.R. 7093 incentivizes public-private partnerships by permitting charitable deductions for the part-time provision of real property. This legislative model could be replicated and expanded to enhance partnerships with emerging technology companies.³³

WHAT CAN THE EXECUTIVE BRANCH DO?

- Continue to invest in existing STEM education programs at NSF, NASA, NOAA, and other mission-based federal agencies.
 - Within these initiatives, ensure continued funding and opportunities for afterschool programs to enhance young people's foundational digital literacy skills, such as computer science and data literacy. To effectively develop AI literacy, youth need a strong foundation in understanding these concepts.
- Across NSF's AI professional development programs, such as the Experiential Learning in Emerging and Novel Technologies (ExLENT) program, ensure robust partnerships among technology sectors, STEM organizations, and afterschool programs.³⁴ Where they are currently not included, expand eligibility to afterschool educators.
- Within existing federal K-12 AI education programs that do not explicitly mention afterschool (such as Title II-A of ESSA), release non-regulatory guidance to recognize afterschool and summer learning programs as eligible entities.
- Create an interagency agreement between NSF and the Department of Education to support the development of real-time databases of local and regional afterschool partner programs and STEM networks to streamline corporate and industry partnerships.
- Across federal agencies and initiatives that provide AI tools and instruction for use in school systems, include non-regulatory guidance and recommendations that encourage and support the use of AI and other emerging technologies to enhance communication and coordination with afterschool educators and providers.
- Utilize the Department of Labor's Employment and Training Administration's demonstration grant authority to include afterschool educators as eligible participants in relevant AI skill development training opportunities.³⁵
- Within guidelines that the Department of Education and Department of Labor send to states as they develop, integrate, and expand AI and emerging technology education and workforce training, encourage states to seek out voices from across the education and workforce development ecosystem, including afterschool educators and leaders.
 - Leverage opportunities within NSF's AI Institutes to collaborate with the Department of Labor and the Department of Education in research on AI augmented learning and its impacts on and safe deployment in afterschool programming.³⁶ Importantly, youth perspectives and insights must be included in the development and implementation of safeguarding procedures.
 - The NSF's Directorate for STEM Education should fund a large-scale research-to-practice grant to examine corollary and novel outcomes of youth education and engagement in AI.
 - Initial evidence indicates that many impactful outcomes from these programs are unmeasured, such as increased family and community AI literacy resulting from youth proficiency, as well as experiences and skills in raising awareness, advocating, organizing others, designing solutions, and purposefully participating in efforts to address science- and technology-related public matters.³⁷

Programs such as NSF's Computer Science for All must continue so young people can access high-quality instruction in these foundational skills.³⁸

Afterschool, summer, and OST programs should be included as key players within national strategies, such as the National AI Research and Development Strategic Plan and the National AI Action Plan.³⁹

END NOTES

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ABOUT AFTERSCHOOL STEM HUB

The Afterschool STEM Hub, a project of the Afterschool Alliance, is dedicated to ensuring that all young people have access to high-quality, meaningful, and youth-centered STEM learning experiences in their afterschool programs. We are a coalition of youth program leaders, researchers, and STEM education advocates working at the intersection of practice, research, and policy to advance investment in afterschool STEM programs. More information is available at afterschoolstemhub.org.



ABOUT THE AFTERSCHOOL ALLIANCE

The Afterschool Alliance is a nonprofit public awareness and advocacy organization working to ensure that all children and youth have access to quality afterschool programs. More information is available at afterschoolalliance.org.

