



STEM in Vermont

Access to afterschool and summer programming is not equal in Vermont, especially in rural and low-income communities. Over 26,000 children would be in an afterschool program if one were available and that number has grown consistently since 2009.¹

Jobs in STEM are growing at double the rate (7%) of non-STEM professions (3%) in Vermont, yet state business leaders are struggling to find the STEM talent they need to stay competitive.²

Since 2019, math proficiency for 8th grade students in Vermont has dropped to 27%. Not enough students have the math and science learning opportunities to prepare for college and careers.³

1. Afterschool Alliance. 2020. "Vermont After 3PM." <https://afterschoolalliance.org/AA3PM/data/geo/Vermont/overview>
2. Education Commission of the States. 2017. "Vital Signs: Vermont" <https://files.eric.ed.gov/fulltext/ED584689.pdf>
3. NAEP. The Nation's Report Card: 2022 Mathematics Snapshot Report: Vermont Grade 8, 2022. <https://nces.ed.gov/nationsreportcard/subject/publications/st12022/pdf/2023011VT8.pdf>
4. Ibid

Vermont Afterschool

Through an extensive network of partners, professional development, and advocacy, Vermont Afterschool (VTA) is at the forefront of expanding STEM learning throughout Vermont.

VTA is transforming the pathways into engineering, the sciences, and advanced manufacturing. With partners, they are working to create equal opportunities to keep children engaged and learning STEM in the out-of-school time hours across the state.

Together, women and people of color make up over 50% of Vermont's population, however, they are much less likely to earn STEM degrees or become STEM professionals, especially in computing. VTA is working to close these gaps.

As part of STEM Next's national initiative, the Million Girls Moonshot, VTA is building the capacity of afterschool and summer programs to engage youth in STEM, especially girls and under-served youth.



STEM Reach in Vermont Afterschool & Summer

861

PROGRAMS

5,638

EDUCATORS

24,458

YOUTH

14,127

GIRLS

50%

YOUTH FROM LOW-INCOME HOUSEHOLDS

60%

RURAL YOUTH

15%

BIPOC YOUTH

Based on state-level partners' reports of their reach in each of the three program years, adjusted for likely duplication across reporting periods.

Building Awareness and Engaging Partners

Vermont Afterschool works to ensure all youth, especially the underserved, have access to STEM opportunities. Key strategies include partner connections; OST program outreach; training and evaluation; a database of STEM professionals, video library, & guest speakers; and sharing Moonshot/STEM curricula and resources. Using Harvard PEAR's STEM evaluation tools, the Committee collects data and assesses STEM reach and impact, while also identifying existing STEM programs, gaps, and access barriers.

Advocacy

Vermont Afterschool, the Governor, state legislature, and government agencies are working together to ensure every Vermont youth who wants to attend an afterschool and summer program has the opportunity to do so. This includes:



Braided Funding

Braiding diverse revenue sources almost \$5M was distributed by Vermont Afterschool creating thousands of new OST programming slots for youth. In 2023, 20,065 youth, 1,192 staff, 238 programs, and 81% of Vermont towns were impacted.



Transportation, Accessibility

Based on 31% of parents reporting no safe way transportation for youth to programs, Friends for Change utilized OST grants to provide daily transportation and resources to meet gaps in human and social services for families.

Engaging More Youth in STEM & Equipping Out-of-School Time (OST) Educators

Vermont Afterschool empowers youth through state and local Youth Councils and Advisory Groups to advocate for issues that are important to them, fostering leadership, collaboration, problem-solving, and career skills for the future.

“We’re coming together to make beneficial change and our ideas matter. We are growing up in a time that is so different from any other. The ways we think of solving things are fresh and creative. It makes me really hopeful for the future.” –Harmony Devoe, State Youth Council Member



Career Readiness Program

With the Youth Career Exploration Subcommittee, the program engages middle and high school students with career exploration, workforce readiness, and real-world applications. Partnering with **Jobs for the Future (JFF)**, a national Moonshot partner, OST programs receive training and curricula to engage grades 5-10 in career exploration.



Vermont STEM Advisory Committee

Part of the state STEM Advisory Committee, OST professionals collect and review data from their STEM programs to share best practices statewide. Meet monthly, the CoP shares resources, highlights successes, and fosters connections.



Shifting Adult Practice

Vermont Afterschool recognizes that an investment in youth workers is an investment in youth. They offer hundreds of workshops (134 in 2023) covering social-emotional learning, resilience, and STEAM.



Linking Engineering to Life (LEL)

With University of Vermont (UVM) College of Engineering and Mathematics and Norwich University, LEL introduces girls, underserved, and nonbinary youth to engineering challenges. Youth also engage with college mentors and women engineers.



Annual Afterschool Conference

The annual conference convenes 160+ OST programs to connect, share, and learn. VT Afterschool also collaborates with other statewide afterschool networks to offer virtual trainings.



STEM Pathways for Rural Students

STEM Pathways equips rural students to teach STEM to elementary schoolers in OST programs. The initiative broadens STEM access for younger students, while giving high schoolers valuable STEM skills, and financial compensation in regions with limited job opportunities for teens. Vermont Afterschool also facilitates connections to local businesses fostering additional avenues for youth employment.

STEM Next's premier initiative, the Million Girls Moonshot, partners with afterschool and summer programs in all 50 states, leveraging the 50 State Afterschool Network, which has access to more than 10 million youth and 100,000 afterschool programs.

The Moonshot equips community and state leaders with resources, toolkits, training, and expert partners to support the expansion of afterschool STEM in urban, suburban, rural, frontier, and Indigenous communities nationwide. The Moonshot raises awareness among educators for what great STEM looks like as well as creates national campaigns that elevate STEM in out-of-school time. Working together, national, state, and local partners are transforming the pathways into engineering, the sciences, advanced manufacturing, and more.

Learn more at www.milliongirlsmoonshot.org