



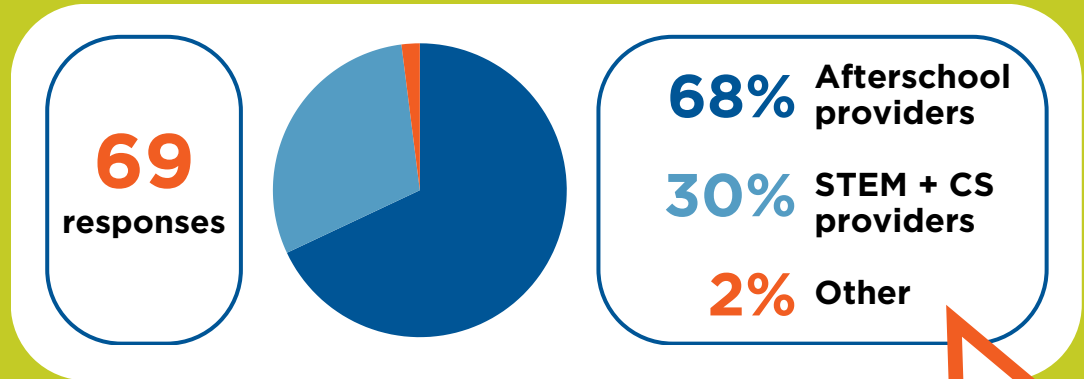
THE CURRENT STATE OF

Computer Science OST Experiences

IN NEW YORK CITY

Given the value of computer science (CS) activities in out-of-school time (OST) to build skills, boost engagement and nurture a passion to pursue CS as an adult, we surveyed the field to learn about CS in the OST space

There are many community partners offering STEM and Computer Science activities for young people: organizations that offer youth programming, known as “afterschool providers” and those primarily focused on STEM + CS enrichments, known as “STEM + CS providers”




KEY TAKEAWAYS:

Over **80%** of STEM + CS providers offer some Computer Science programming.

Afterschool providers want to offer STEM+CS programming, but only **27%** of respondents reported being able to do so consistently.

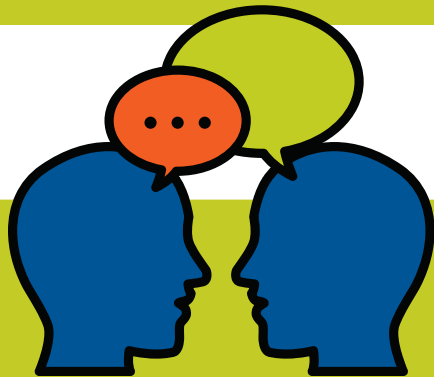
Afterschool providers need **funding, training, and support** to increase STEM+CS program offerings.

Afterschool and STEM+CS providers agreed that funding within current local and federal policies is **insufficient** to support quality computer science programming.



STEM+CS providers largely report **consistency** and **alignment** of computer science programming with school-day curricula and industry needs.

80% of STEM+CS providers who shared industry alignment methods (n=5) reported embedding youth-centered design principles in their programming.

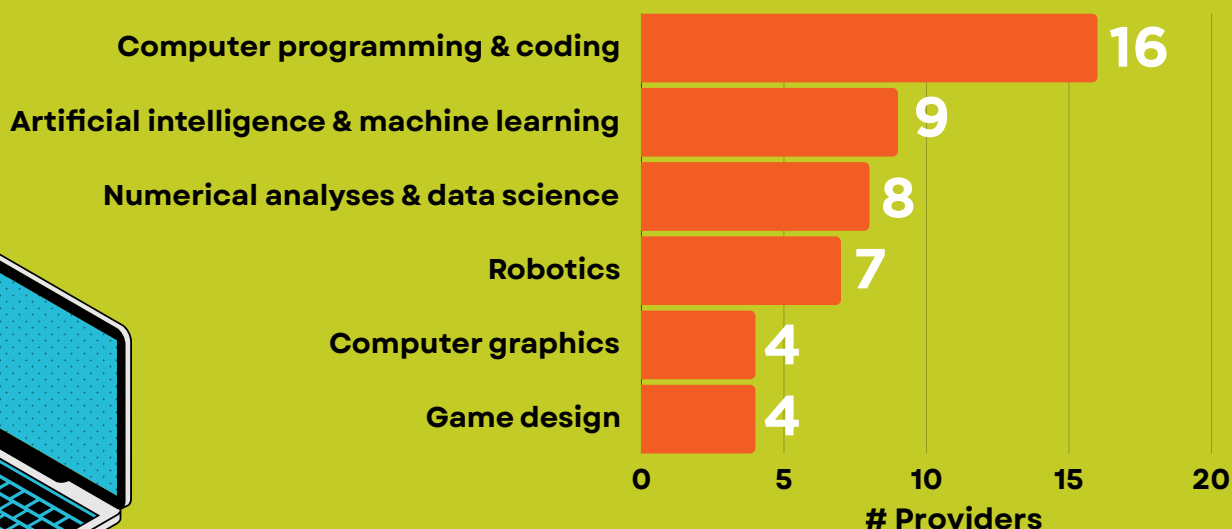


STEM+CS Providers

The majority of STEM+CS providers who responded stated an organizational focus on Professional Development for Educators, followed by Program and Curriculum Design and Direct Service Delivery.

81% Reported an organizational focus on computer science education to a moderate or large extent.

Areas of Computer Science Focus for STEM+CS Providers



80% Of providers reported aligning professional development and curricula to school-day curricula to a moderate or great extent*

60% Reported alignment in relation to direct service programming*

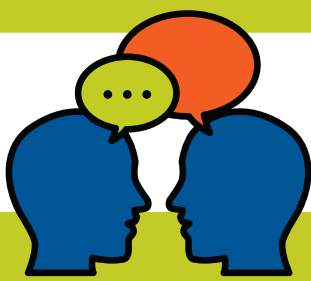
*Note: these questions were answered by a subset of providers, n=5.

STEM+CS providers named **funding** and **technology infrastructure** as two high-priority policy advocacy areas.

STEM+CS providers highlighted **data collection** around content being taught, **implementation of state standards**, and **teacher certification** as impactful policies.

STEM+CS providers cited using **research and evidence-based practices** to inform their curriculum and educator development offerings.

The funding is very scarce right now. This is a difficult time to run a STEAM company that serves schools.



Afterschool Providers

27% of afterschool providers reported consistently implementing some type of STEM+CS-related activity in OST.

73% noted that while they try to offer at least one STEM+CS activity per program cycle, they are not always able to do so.

When asked what limited providers' ability to offer STEM+CS programming, top barriers included:

Organizational focus on other areas of youth interest and/or development (e.g. the arts, writing, sports, etc.)
(20 respondents)

Lack of training for educators in supporting facilitation of STEM+CS activities
(20 respondents)

Understaffing and/or staffing turnover
(19 respondents)

Insufficient funding to secure appropriate resources and technology to implement STEM-focused activities
(19 respondents)

Notably, only 4 respondents noted youth disinterest as a barrier, implying relatively strong youth interest in STEM+CS programming.

For computer science it is highly dependent on having skilled educators or appropriate training...In my experience, unless a teacher has prior experience in it, it is really difficult for them to learn and lead comp science curricula. More funding for free training and support...is necessary to bolster access to all students.

Afterschool providers named Artificial Intelligence, Algorithms, Computer Simulation, and Data Science as areas requiring more programming.

Underfunding for community-based services/programs [is a barrier]. Cuts to program funding this year [impact our] ability to hire subcontractors who are our main source of higher-quality STEM+CS facilitation, especially STEM+CS components involving technology.