

STARBASE Minnesota Overview & Annual Results



STARBASE Minnesota is a 501(c)3 nonprofit organization, founded in 1993 whose mission is to educate and inspire youth in science, technology, engineering and math (STEM). Since 1993, STARBASE has served over 68,000 Twin Cities' youth. STARBASE is a program of the Department of Defense and Minnesota National Guard who provide a state of the art facility, access to an exciting, technology-rich environment, in-kind services and volunteers. STARBASE partners with area school districts to provide STEM programming, and corporate partners that provide financial/in-kind support, and volunteer scientists and engineers to programs. Fall 2017, STARBASE expanded to Duluth, MN on the 148th Fighter Wing of the MN National Guard and with the help of state funding expanded to four classrooms in 2020. STARBASE has a 23-member Board of Directors and 11-member Duluth Advisory Board with backgrounds in business, education, military and government. There are 69 STARBASE locations in the U.S. in 33 states and Puerto Rico.



STARBASE Minnesota provides: immersive five-day, 20-25 hour STEM programs for grades 4-6, with authentic, rigorous and engaging learning aligned to standards. STARBASE also supports STEM learning long after STARBASE through the STARBASE 2.0 mentoring program, Clubhouse extensions and Student Guide to Pathways in STEM. STARBASE partners with area universities to provide field experiences for future educators increasing classroom impact exponentially. Regular programming was suspended mid- March 2020 due to COVID-19*; STARBASE developed creative solutions with hands-on STEM kits distributed to nearly 500 students summer of 2020, and to over 2,700 Twin Cities students fall 2020 with accompanying STEM video instruction resources and rocket launches with 3D-designed and printed fins at schools. Continued expansion of STEM kits with real-time remote instruction will also be conducted for up to an additional 5,000 Twin Cities students starting November 2020.



In FY20, STARBASE served 2,156 students* from 24 Twin Cities schools and 1,019 students from 17 schools in Duluth and northland region. STARBASE will serve over 5,000 students/year-St. Paul with modified programming, including hands-on STEM kits distributed to area districts; and over 2,000 in Duluth this coming year:

STARBASE Minnesota-St. Paul Student Demographics* (3% unreported)

Male	Female	Low income	ELL	African Amer	Asian Amer	Hispanic	Native Amer	White	Multi-Racial
52%	48%	51%	24%	19%	22%	12%	2%	27%	15%

FY20 Student & Teacher Results: (measured by pre and posttests; surveys and evaluations; Wilder Study)

- 93% students increased knowledge / skills in science, technology, engineering and math
- 73% average improvement pre to posttest STARS 1; 60% average improvement for STARS 2
- 96% students reported STARBASE made learning fun; 87% have increased interest in STEM;

- Additional pre/post student survey data reflected exceeding targets for positive change in attitude toward STEM, confidence in their STEM abilities, a broader view of themselves in STEM and the STEM careers they have interest in pursuing.
- 97% classroom teachers reported gains in own knowledge/teaching skills
- 100% teachers rated STARBASE excellent (88%) or very good (12%); 100% want to return.
- 8-10 years later, 99% of former STARBASE students surveyed thought STARBASE was valuable learning experience; 83% felt the program helped them understand STEM better and 79% said it increased their interest in STEM; additional positive impacts on graduation and college enrollment. *See full study conducted by Wilder Research.*

FY20 Educator and Volunteer Participation*: *(participation numbers impacted by COVID-19 when volunteerism suspended)*

- 32 military volunteered 194 hours at graduations, rocket launches, tours, and as mentors.
- 82 corporate scientists/engineers volunteered 231 hours, demoing “real world” STEM/careers
- 224 educators participated 2,928 hours in the program, bringing STEM learning back to schools.
- 163 parents and community volunteers contributed 827 hours supporting student learning
- 24 STARBASE Minnesota, Inc. Board of Directors members volunteered 709 hours.

Thank you to STARBASE Minnesota Funders in FY20: Department of Defense, State of Minnesota; Individual Donors; Additional financial support from: 3M (\$25,000); Abbott Fund (\$5,000); BAE Systems (\$7,514); Boston Scientific (\$10,374); Collins Aerospace (\$3,900); Ecolab (\$12,500); Henkel Foundation (\$5,000); nVent (\$6483); Pentair (\$10,000); Seagate (\$10,000); Toro (\$3,475). Additional in-kind products donated by Stratasy (\$11,000). Thank you for investing in our mission of educating and inspiring Minnesota youth in STEM!

