2,707 high school students have graduated from HSTA, 1998–2018

99% of HSTA graduates matriculate to college

89% graduate from college; 87% of these students graduate with a 4-year degree or better

84% stay in West Virginia to work

On average, HSTA students earn $30,000 per year more than their parents

State schools provide substantial tuition support through medical school and other advanced STEM-based degrees

- 68% First-generation
- 69% Female
- 46% Financially disadvantaged
- 75% Rural
- 37% African American
The Health Sciences & Technology Academy, known as HSTA, is a one-of-a-kind mentoring program in the state of West Virginia that helps underrepresented high school students enter and succeed in STEM-based undergraduate and graduate degree programs. HSTA marshals the efforts of hundreds of mentors, teachers, community members, higher-education faculty and staff, and the HSTA participants themselves through a framework that supports students facing social and financial challenges to obtaining a diploma and furthering their education.

Since its inception in 1994, the program has grown from 9 teachers serving 44 students in 2 West Virginia counties to a network of 80 teachers serving hundreds of students across the state. HSTA participants are primarily students who have grown up in rural communities and are first in their families to attend college. More than half are financially disadvantaged, and one-third are African American. The vast majority of HSTA graduates obtain a college education and many earn advanced degrees.

Implemented through West Virginia University, HSTA’s main goals are to increase college attendance in Appalachia, improve STEM education in public schools, empower communities through youth leadership, and increase the number of health-care providers and STEM educators in underserved communities.

To realize these goals, HSTA created a mentorship structure that supports student success and addresses individual educational and social needs.

The program puts rigorous academic expectations into place that connect learning to students’ personal experiences. It rewards participants and teachers with generous incentives that recognize their accomplishments, and it offers, through the support of the West Virginia Legislature and state colleges and universities, substantial tuition waivers to successful participants who go on to attend an in-state institution for an undergraduate or STEM-based graduate degree.

HSTA’s accomplishments in West Virginia are exceptional. Without this far-reaching mentoring program, thousands of students would not be realizing their unique potential and using their abilities to improve the communities from which they come.

A distinctive piece of HSTA is its students’ development of research projects that examine and address health issues faced by their communities. These projects form the core of the HSTA experience and drive the academic learning the program promotes. The projects turn HSTA students into community advocates who address health and social issues at home even as they prepare to move on to college and beyond. Project results have been published in peer-reviewed journals.

HSTA students engage in a rigorous academic program within the nurturing environment of a small after-school club. They apply learned concepts to real-life issues under the mentorship of teachers, community members, researchers, and their fellow students.