

# Transform a Student's Future



DiscoverE's mission is to raise the visibility of engineering and to introduce PK-12 students to the field while serving the larger societal need to sustain a robust and diverse engineering and technical workforce. The goal is big, resources are limited, and there is no short-term solution.

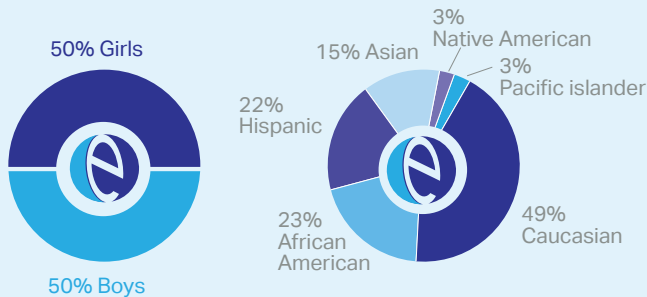
Join us in our mission as we work together to help shape the future of engineering.

## 5.5M Students Engaged in a STEM Experience



**219**

Average number of students reached per educator or volunteer



“Future City and Girl Day have had a remarkable impact on our middle school students. Many students at our school have pursued a career in engineering as a result of exposure through these programs.”

— Teri Hanby, Educator, DE

## 63% DiscoverE Educators Teach in Title I Schools

**8 out of 10** students knew what an engineer did after attending a DiscoverE Engineers Week event.



**91%** students involved in DiscoverE's Girl Day report they are now interested in doing engineering activities or studying engineering.

“DiscoverE is important for the engineering profession in that it creates awareness about the all-important work engineers do and it increases opportunities for girls and minorities to enter the profession. The organization and website offer great resources.”

— Holly Flannigan, Ohio Society of Professional Engineers, OH

## \$0 Cost per Student to Participate in DiscoverE Programs



**8 out of 10** educators and volunteers agree it is important to have access to DiscoverE's free resources to engage students in STEM.

“Future City is a club where everyone can feel welcome. Everyone gets a role that suits their skills and interests, while still learning to work as a team.”

— 8th grade student, NY

## 154 Corporate and Nonprofit Partners



**95%** of educators agreed that meeting an engineer or technical professional is an important opportunity for my students.

“DiscoverE provides hands-on joyful opportunities for students to engage in engineering design and STEM learning. With DiscoverE's programs, students are able to be engineers and design solutions to some of our most pressing national challenges all while working in teams, building STEM skills and having fun!”

— Carly Roberts, Overdeck Family Foundation

## Why This Matters

- Today, 1 in 3 engineering roles goes unfilled. And this trend is expected to continue as industry expansion has led to annual job growth projections of 8% through 2029.<sup>1</sup>
- STEM skills are relevant in all industries and depend on an increasing level of math and science literacy.

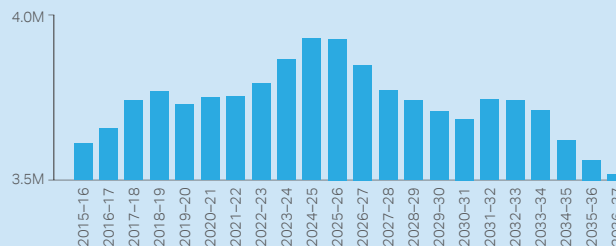


### The need to interest students in STEM early is well documented.

- Students fall out of STEM pathways as early as 4th grade.
- Research shows that when role models are equipped with effective engineering messages and hands-on activities, we can spark a student's interest, build their confidence, and help them see themselves as engineers.<sup>2</sup>

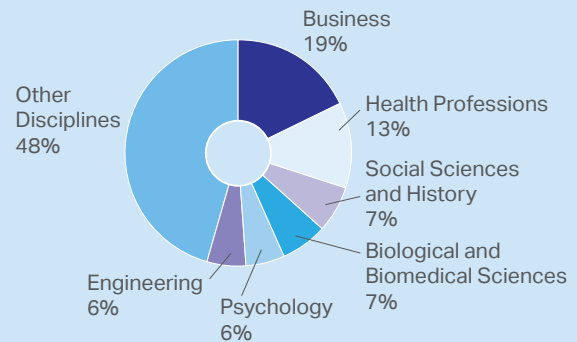


### Total Number of High School Graduates Declining<sup>3</sup>



### Undergraduate Degrees Conferred By Field<sup>4</sup>

Postsecondary institutions conferred 2 million bachelor's degrees in 2021-22. Of the 2 million bachelor's degrees conferred in 2021-22, 58 percent were concentrated in six fields of study



## Why DiscoverE?

DiscoverE believes every student in the world deserves free STEM and engineering experiences.

- DiscoverE is the backbone organization behind some of the earliest and most broadly adopted STEM and engineering programs available, including Engineers Week, which occurs every year.
- Our dedication to providing free resources to students sets us apart in the STEM field.
- DiscoverE leverages the power of role models and partnerships to create accessible opportunities for students to engage in STEM activities.



<sup>1</sup> Boston Consulting Group, 2023 <https://www.bcg.com/publications/2023/addressing-the-engineering-talent-shortage>

<sup>2</sup> Global Strategy Group. "Messages Matter: Full Research Findings – February 2023." Published by DiscoverE Engineering. Retrieved from <https://discovere.org/wp-content/uploads/2023/02/Messages-Matter-Full-Research-Report-Feb-2023.pdf>.

<sup>3</sup> Western Interstate Commission for Higher Education, Knocking at the College Door, 10th edition, 2020.

<sup>4</sup> National Center for Education Statistics. (2023). Undergraduate Degree Fields. Condition of Education. U.S. Department of Education, Institute of Education Sciences. Retrieved May 30, 2024, from <https://nces.ed.gov/programs/coe/indicator/cta>.

## By 2030, DiscoverE will:

- Create 10 million K-12 engineering experiences.
- With a focus on ensuring 5 million are underrepresented students.



### How will we accomplish this bold goal?

- **Engineers Week (1951)**

DiscoverE's signature program is one of the first STEM programs in the United States and is a year-round commitment to celebrate engineers and technicians and to engage millions of students around the world in STEM.

- **Future City Competition® (1992)**

An international engineering and tech competition where 67,000+ middle and high school students strengthen their STEM skills to imagine, research, design, and build cities of the future.

- **Introduce a Girl to Engineering (2001)**

Volunteers, educators, and others act as role models, facilitate STEM activities, and show 500,000 girls how engineers change our world each year.

- **World Engineering Day (2016)**

With partners UNESCO and WFEO, DiscoverE leads the international movement to celebrate engineers' achievements and improve the public understanding of engineering and technology.

- **Chats with Change Makers (2020)**

Each month, DiscoverE's high school student host interviews STEM professionals, with videos receiving over 300,000 views and counting. Viewers, both live and on-demand, tune in from classrooms, after-school programs, libraries, and homes.

## Stronger Together

DiscoverE has built an active community of organizations, volunteers and educators who use our free programs and services including:

- Robust career library featuring 16 different STEM fields
- Growing collection of 171 STEM activities, videos and games
- Well-attended volunteer and educator trainings
- Original research examining proven ways to engage students and effective engineering messages

## About DiscoverE

DiscoverE is a nonprofit dedicated to providing every student with a STEM experience and the resources, programs, and connections to improve their understanding of engineering.

DiscoverE delivers on our mission of celebrating the accomplishments of engineers and technicians, engaging K -12 students in engineering, and supporting underserved and underrepresented populations through a collective impact model that leverages partnerships with corporations.

DiscoverE is supported by generous funders including Bechtel Corporation, Bentley Systems, Collins Aerospace, NCEES, Northrop Grumman Foundation, Overdeck Family Foundation, Project Management Institute, Shell Oil Company, Underwriters Laboratories, as well as additional supporters.

