INDUSTRY NEED
STEM-related jobs, including engineering, grew three times faster than non-STEM jobs between 2000 and 2010. By 2018, 2.4 million STEM jobs were expected to go unfilled. STEM occupations like engineering outearn non-STEM jobs by 12-30% across all education levels. In engineering alone, 140,000 new jobs will be added by 2026, with the majority going to civil, mechanical, and industrial engineering.

Engineers play an integral role in maintaining, innovating, and upgrading the infrastructure of the United States, but the industry faces many challenges, including filling its talent pipeline with diverse and highly skilled workers. Minority groups and women are currently underrepresented in engineering.

CURRICULUM
Engineering curriculum explores principles of engineering and provides content in various fields including electronics, biotech, aerospace, civil engineering, and architecture. NAF partners with several companies to provide rigorous and relevant curricula, including Project Lead the Way, The STEM Academy, and Paxton/Patterson. In addition, NAF approves programs of study that align with NAF’s certification standards, enabling local school districts to meet the needs of their community, as well as district and state requirements.

NAF APPROACH
NAF’s educational design is focused on making connections between the classroom and the workplace by integrating career-focused curricula and projects into the traditional high school experience, coupled with opportunities for real-world application. Through a series of coursework, together with a progressive continuum of activities designed to build awareness, enable exploration, and finally prepare students for future studies and career paths, NAF students gain the skills and knowledge needed to make informed choices and be successful in their future careers.

PARTNERSHIPS
NAF works with both major corporations and local companies to ensure that the curriculum is current and relevant and to provide practical experience to students through a series of work-based learning activities. These activities enable students to connect directly with professionals in engineering to learn first-hand about the industry, the skills needed to succeed, the expectations, and more. Business professionals serve as role models and mentors to students, guiding them to grow their business acumen as well as technical knowledge. Businesses that work with NAF academies play an active and integral role in shaping the future workforce and building a talent pipeline that will one day soon be eligible to fill roles within their companies.

*The Bureau of Labor Statistics
16,255 students

89 academies

18 states (including DC)

43 districts

1,023 advisory board members

72% male

28% female

84% of students are females and/or ethnic minorities:
- 41% Hispanic/Latino
- 28% Black/African American
- 21% White
- 6% Asian
- 3% Other/Multi-racial
- 1% Pacific Islander
- <1% Native American/Alaska Native

72% low-income students based on eligibility for free & reduced price lunch

22% English Language Learners

100% of seniors graduated

85% college-bound graduates

32% seniors who had an internship