



WORKFORCE DEVELOPMENT PLAYBOOK: **Messaging and Talking Points**

General Assumptions when discussing workforce issues


When discussing how we address workforce development issues within key audiences, it becomes clear that the engineering industry must:

- ▶ Reset baseline knowledge about the profession; simply, do not assume anything. Engineering may be respected but is often unknown and taken for granted.
- ▶ Reiterate that engineering is involved with every aspect of daily life – engineers keep the lights on and the water running. We must do more to communicate the positive impact of the engineering profession, especially the impact on the environment, sustainability and resiliency.
- ▶ Accept that ‘STEM’ programming does not always encompass engineering; tends to lean more towards ‘science, technology and ‘math.’ Engineering must find new ways to be competitive with these subjects and just as ‘attractive’ when hands-on (robotics).
- ▶ Lean in on the fact that generally, engineers are seen as trustworthy experts, respected leaders that make our communities better. The “source” of information matters and the source may be different for different audiences.
 - ▶ Consider promoting data from key reports, such as Gallup, to highlight graduate perspectives about their careers, which typically have high marks.

Messaging to K-12 Students (K-4, 5-Middle, High School)

K-4: Engineering is the profession that solves big problems with big solutions.


- ▶ “Engineering impacts everything in modern society... changes the world.”
- ▶ “Engineering helps make the world a better place... connects communities, ensures all our basic needs as a society are met.”
- ▶ “Do you enjoy video games where you are building structures or adjusting/creating new things? That is exactly what engineering is.” (Minecraft Rollercoaster Tycoon, Sim City)
- ▶ “The contributions of engineers to our world in terms of what people use in their everyday lives that might not exist or be safe and healthy without engineers. This must incorporate sustainability and resiliency. We contribute every day to your life and making the world a better, more sustainable place.”



5-Middle: Share what sets engineering apart from other industries; demonstrate that engineering is the application of analytical skills.

- ▶ “Math and science might seem ‘boring’ but engineering is not.”
- ▶ “Engineers use a significant amount of 3D software, it is not all day, in-depth math and science.”
- ▶ “Engineering is a very technical industry.”
- ▶ “Engineering design software does ‘heavy lifting’ of engineering work.”
- ▶ “The work environment of engineers is very diverse. Engineers do not sit at our desks all day long doing complicated calculations. We work in a variety of environments with cool equipment and software. We work outdoors in both rural and urban areas, we work on construction sites, at treatment plants, manufacturing plants, etc.”

High School: Combine messages of practical and emotional benefits of the profession.

- ▶ Today’s students can be very practical, equally concerned about their impact on the world while knowing they need strong job security.
 - ▶ “You can make a very good living and have a very enjoyable life as an engineer. You can have a good work/life balance as an engineer relative to other industries.”
 - ▶ Beginning salaries are highly important and will make career choices based on average starting salary (an engineer’s starting salary is higher than other professions, like medical, which may report higher overall earnings but not in the beginning).
 - ▶ Salary is not the only measure of ‘safety’ in this career. Job security is strong... “Roads will always need to be repaired, and engineering will always be the solution to new technologies, such as electric vehicles on an expanded grid.”
 - ▶ There is a perceived entry barrier to engineering, unlike teaching which is easier to enter but is just as hard (in a different way) later in their career.
 - ▶ Today’s students prioritize work/life balance in ways previous generations did not (in making their career/job choices).
 - ▶ Today’s students prioritize employers with empathy and must feel their role has purpose and connection to the company mission.
 - ▶ Students seek a ‘roadmap’ outlining the process for becoming an engineer or related role in our industry... not unlike our industry where engineers require X path; project managers require Y path and construction inspectors require Z path.
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Messaging to Parents, PTAs, Schools

Parents

- ▶ Parental influence is critical as students consider their career options, particularly for Middle School students.
- ▶ Multiple studies point to 'family' being the primary factor/influence on education and career decisions.
- ▶ Parents are concerned about job security and earning potential, but also the 'good' the job can do.
- ▶ Consider targeting PTA/PTO... package information locally (toolkit) and partner with national organizations through ACEC to distribute
- ▶ Schools (Teachers, Counselors) & Partner Organizations
- ▶ Teachers and counselors are indirect recruiters; they see a student's aptitude, sometimes more than parents! Do not forget Career and Technical Education teachers.
- ▶ It is important to make the investment in teachers and counselors, so they know how to 'sell' engineering to their students.
- ▶ Consider targeting science/math classes; students already demonstrate aptitude/are learning about required skills.
- ▶ Organizations that influence career development and exploration in youth are also indirect recruiters.

College/Non-Traditional Candidates

College: Persistence in college is also a workforce issue; we must keep students interested so they graduate as engineers. Up to 50% of the students that enter engineering before they graduate do not stay in their engineering program. Consider targeted messaging for college students.

- ▶ Our industry also offers ample internship opportunities, which lead to job opportunities—at or before—graduation. Some firms will pay to support your continued education & licensure efforts, as well as provide time to prepare for the real world.
- ▶ While many other professions don't offer those same benefits, those that do are true competitors for talent, as most competitive college students have FT job offers before their junior year. The recruitment timeline has greatly shrunk and accelerated.

Non-Traditional: For occupations that are not engineering degree talent, consider alternative or untapped recruitment opportunities... military personnel, adult education training programs, short-term certificates as an entry point to the profession.

