

# **Aeronautics Workforce: Talent, Recruitment, Training - An Academic Perspective**

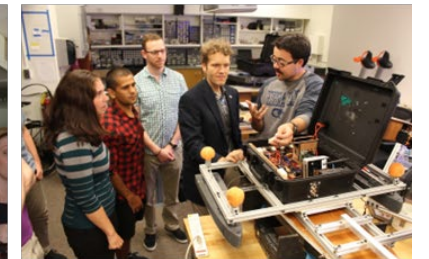
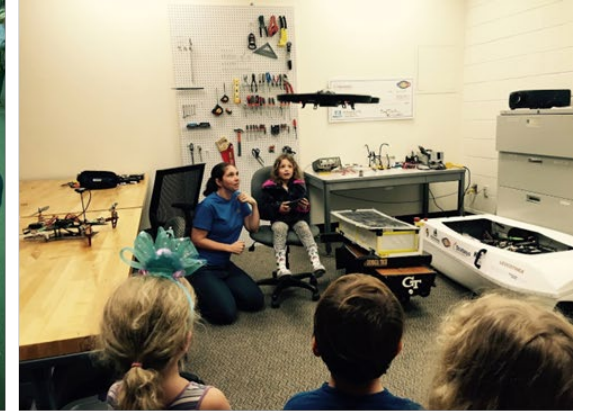
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# A Quick Introduction



# General Trends

- Positives:

- Increased Enrollment in AE programs
- Push for modernizing curriculum and teaching styles
- Our students are incredible
- Industry partnerships in education are more common
- Job market is strong for new hires

- Challenges

- Larger enrollment
  - Bigger classes
  - Less space
  - Harder to get everyone meaningful co-op/internship/research
  - Student resources are overloaded
- Improved teaching
  - Cost
  - Time
- Incredible students
  - Admissions/jobs/etc are competitive
  - Disproportionally affects some groups

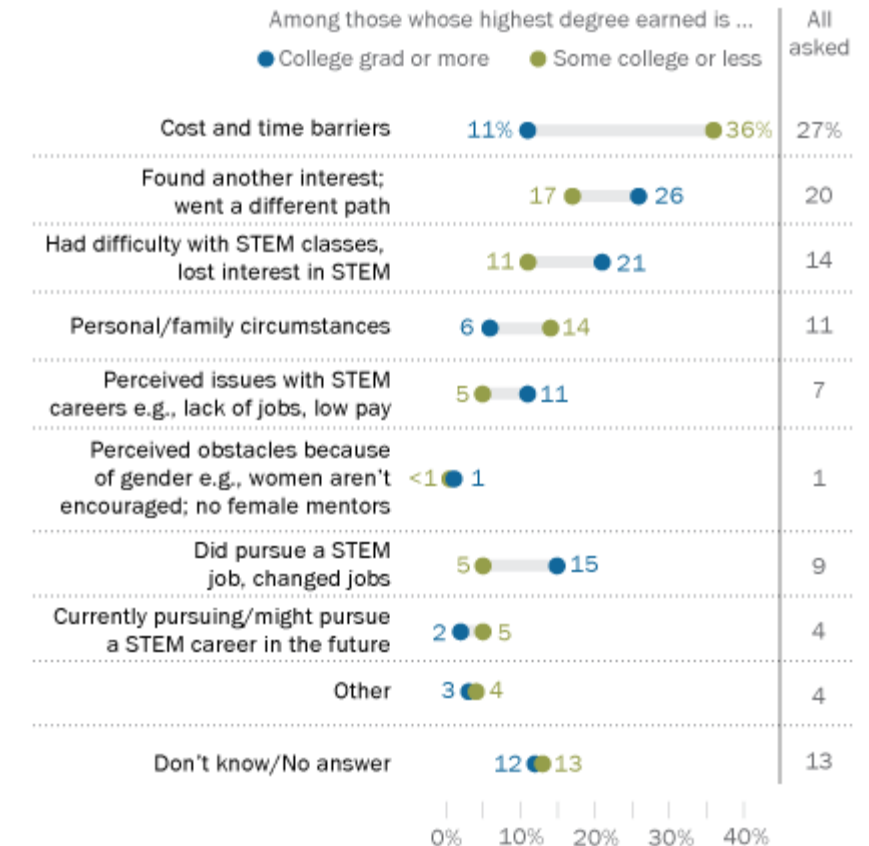
# Barriers to STEM/Aerospace

- Things I hear from high school students:
  - “I can’t afford it”
  - “I’m not smart enough”/“I won’t get in”
  - “I’m not a nerd/STEM is boring”
  - “I want to enjoy college”
  - “No one from my school gets in to \_\_\_\_\_”
  - “My parents say....”
- Things I hear from college students:
  - “It’s too hard”/“Other majors are so much easier”
  - “I’m just a diversity admit”
  - “It’s not what I expected”
  - “There are no jobs for international students”
  - “I’ve heard the culture is unsupportive of women/minorities”
  - “My parents say...”
  - “I’m burned out”
  - “I don’t understand my courses”
  - “Everyone else has done more/knows more/etc”
  - “Classes are too disconnected from the real world”

Cost, Confidence, Culture

## Those interested in STEM who did not pursue it cite cost and time barriers, different interests as reasons

Among those who were ever at least somewhat interested, % who cite the following as reasons they didn’t pursue a job or career in science, technology, engineering and math



Note: Based on those in non-STEM jobs who were very/somewhat interested in pursuing a STEM job or career in the past. Open-end responses coded into categories. Figures add to more than 100% because multiple responses were allowed. Some college includes those with an associate degree and those who attended college but did not obtain a degree.

Source: Survey of U.S. adults conducted July 11-Aug. 10, 2017.

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# A few humble suggestions

- Invest in creating accessible, high-impact opportunities to level the playing field
- Infuse applied projects into the science and math curriculum, support for K-12 educators
- Advertise the wider range of industry careers and education requirements
- Sustained efforts in disadvantaged communities
- Engage in more active and hands-on learning (and fund this!)
- Increase support to the extracurriculars/co-curriculars
- Engage industry/government in creating meaningful classroom experiences
- Rethink assessment/hiring practices
- Work more collaboratively as partners from K through career

A vintage car, possibly a 1920s model, is parked on a grassy area. The car is light-colored with a dark roof and has "GT" written on its side. Two flags are attached to the back of the car. In the background is a large, multi-story brick building with many windows, partially obscured by trees. The entire image has a light green overlay with a subtle pattern of dots and lines on the left side.

**Thank you!**