

Too few, and, too many

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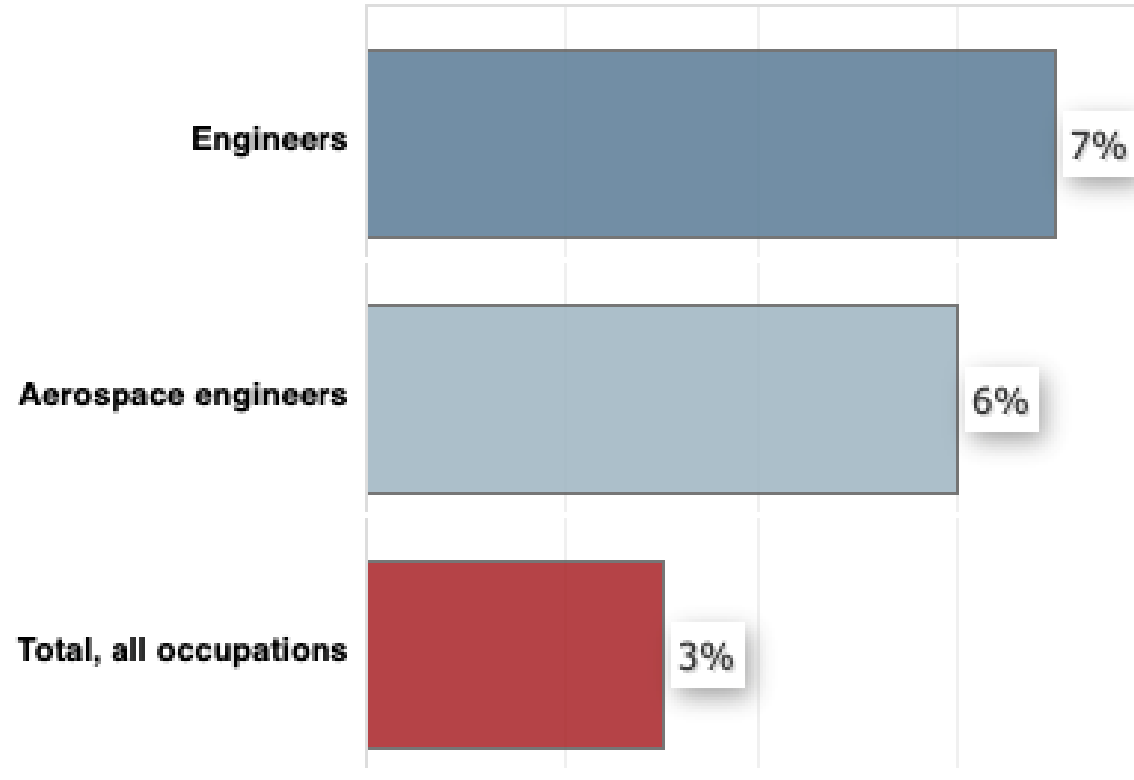
Demand for Aerospace Engineers is high

Quick Facts: Aerospace Engineers	
2022 Median Pay	\$126,880 per year \$61.00 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2022	63,800
Job Outlook, 2022-32	6% (Faster than average)
Employment Change, 2022-32	3,900

Demand for Aerospace Engineers is high

Aerospace Engineers

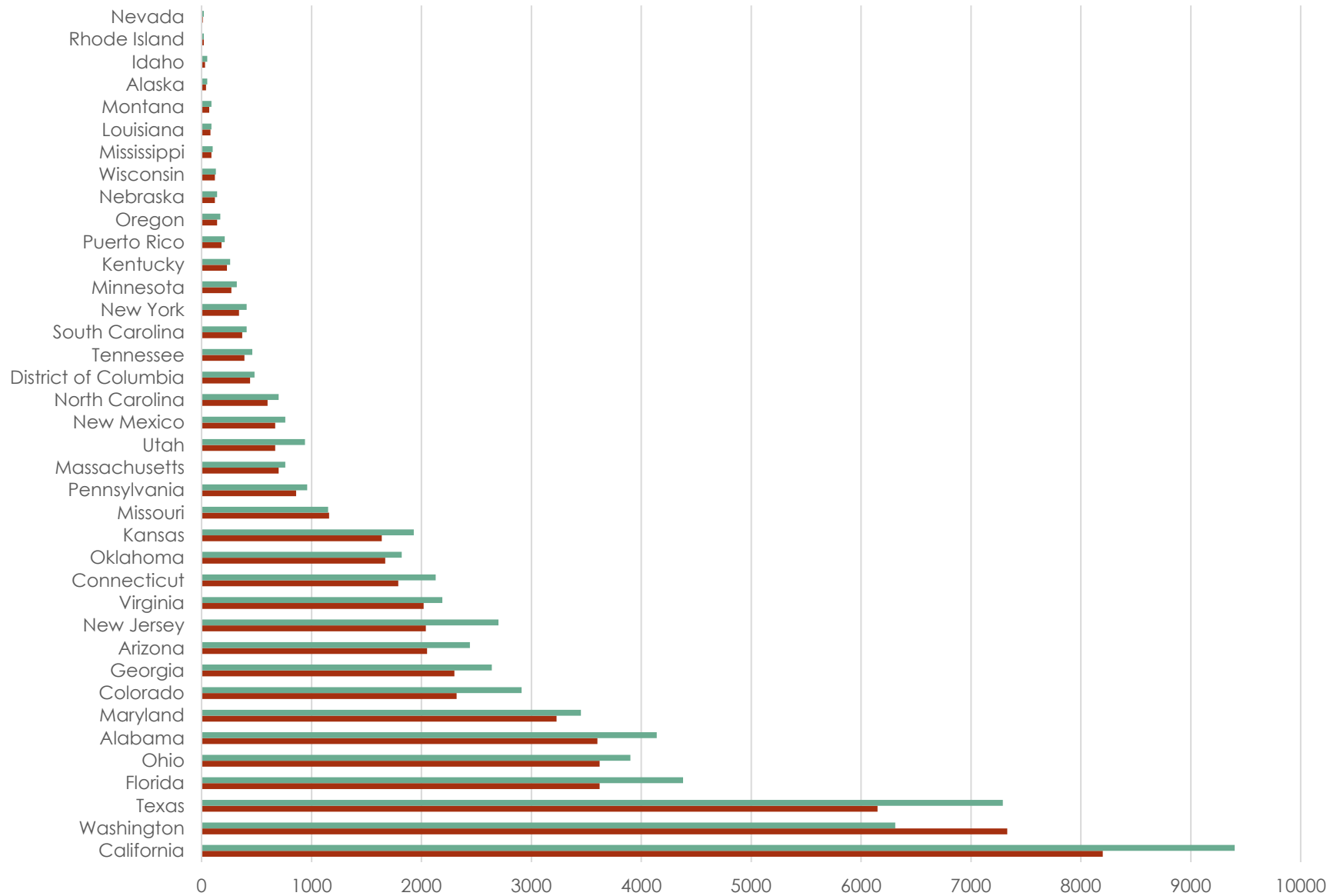
Percent change in employment, projected 2022-32



Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Employment Projections program

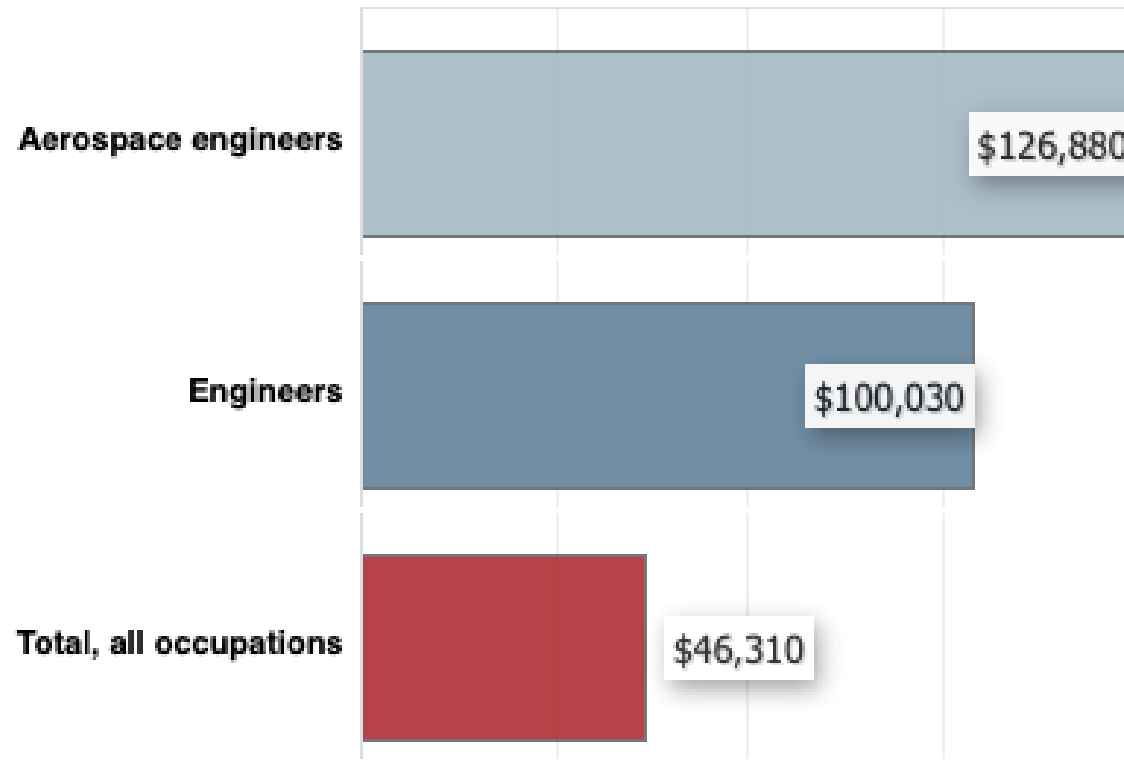
2020 and 2030 Projected Aerospace Engineers Total Job Demand



Annual wages reflect this demand

Aerospace Engineers

Median annual wages, May 2022

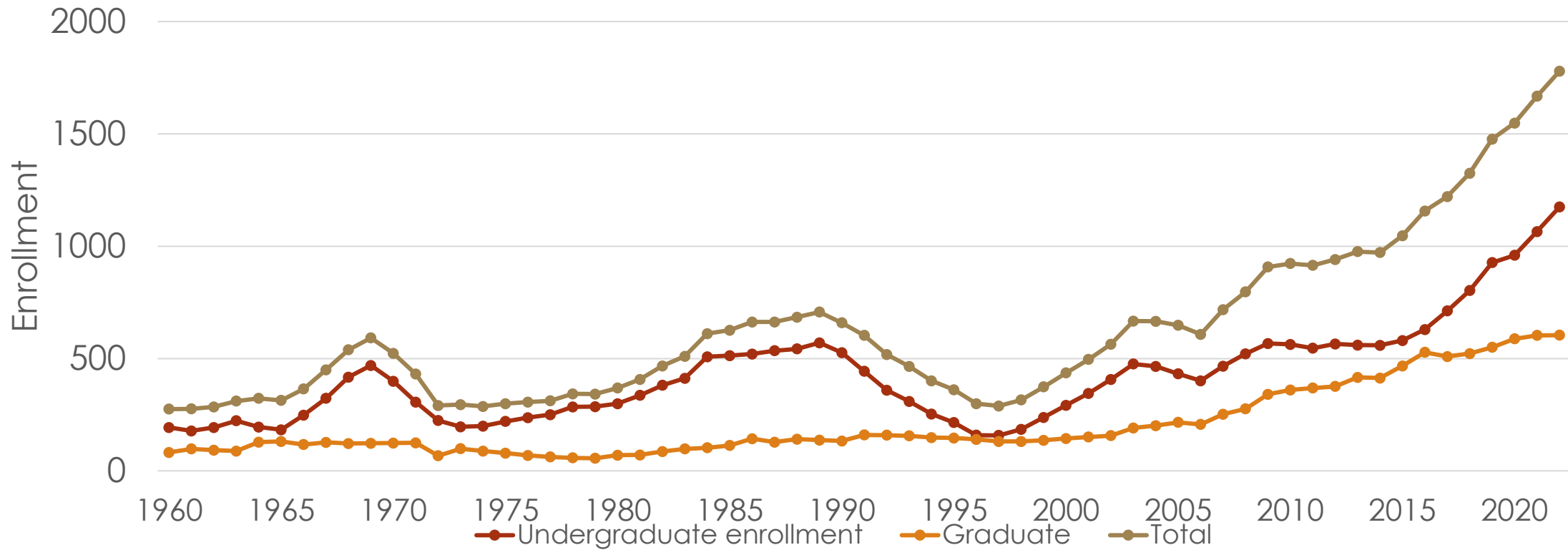


Note: All Occupations includes all occupations in the U.S. Economy.

Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics

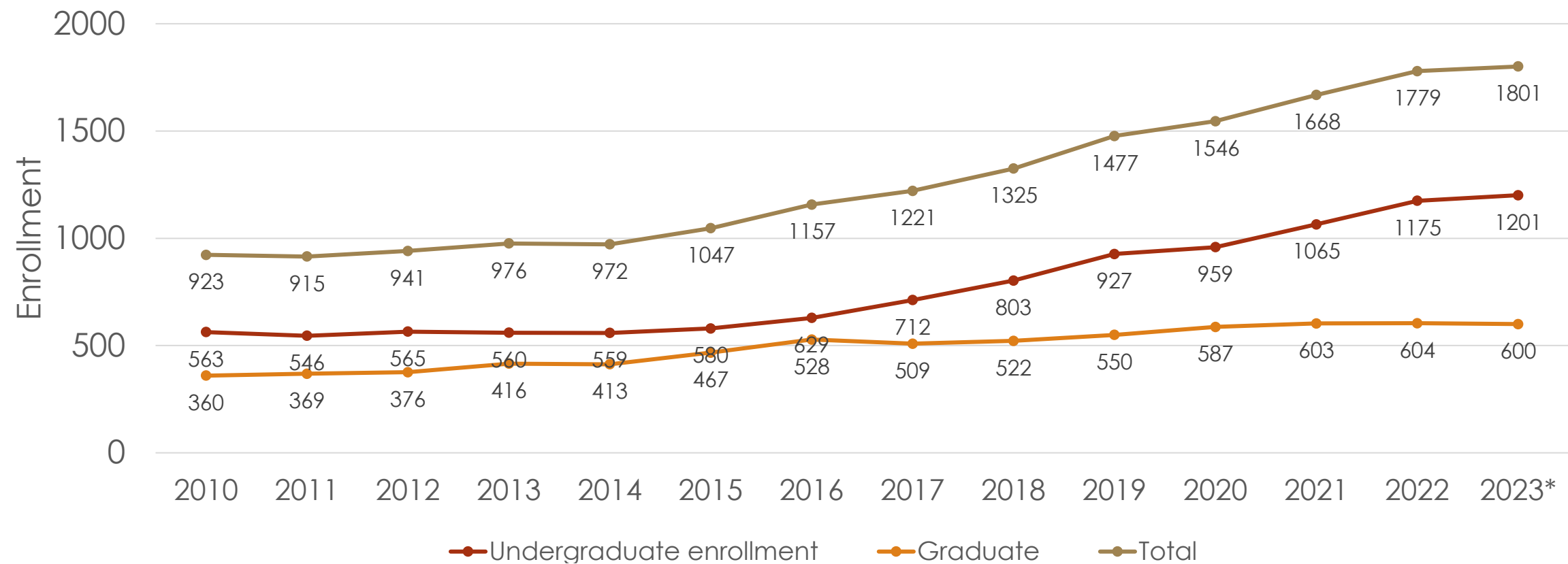
And students are responding by enrolling.

Purdue AAE Student Enrollment 1960–2022



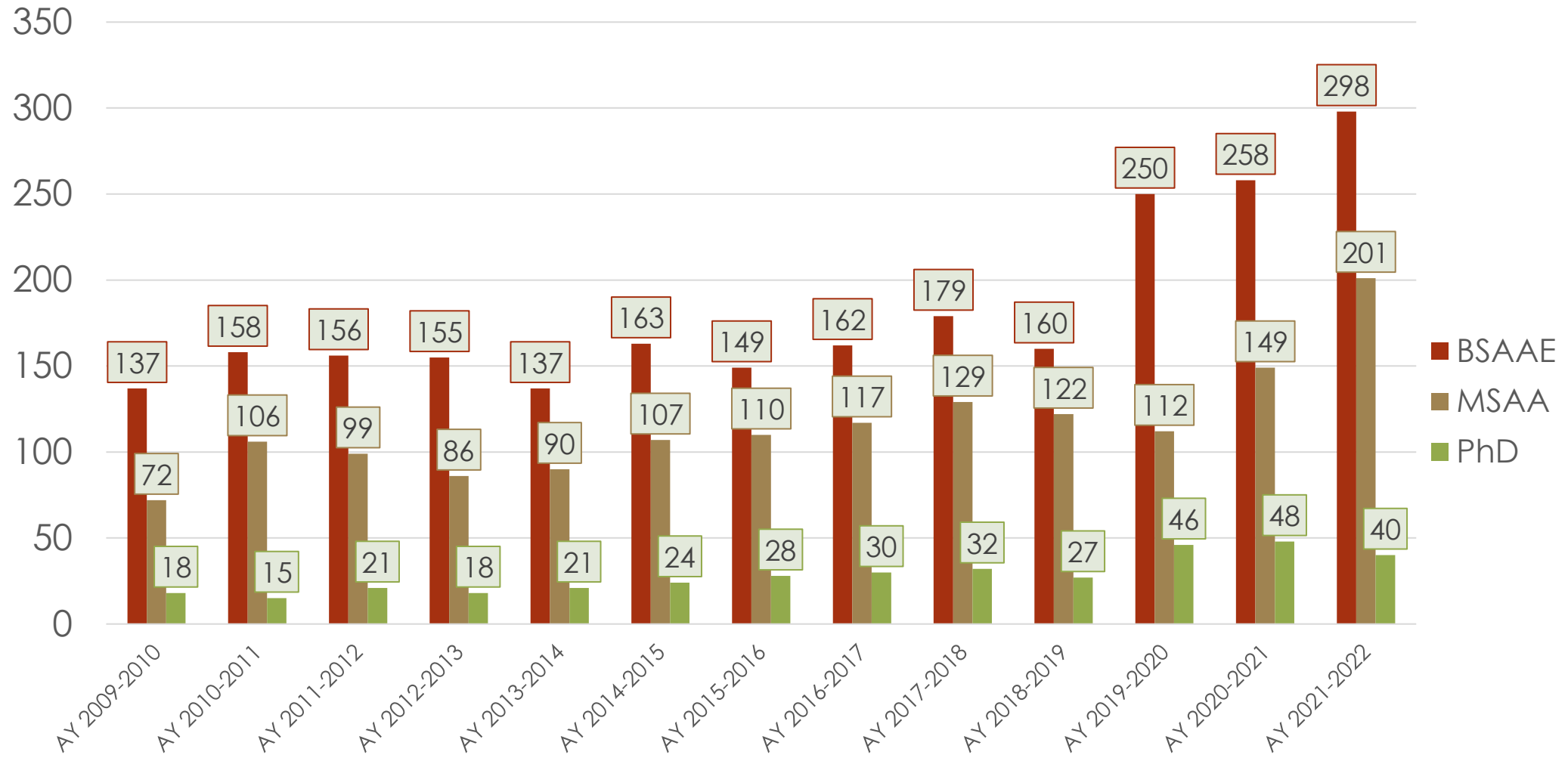
And students are responding by enrolling.

Purdue AAE Student Enrollment 2010–2022



*estimate

More and more students are graduating each year



So far so good?

Is this growth sustainable?

And what's beneath the good news numbers?

Sustaining growth Part 1

How do we provide quality education to more and more students?

- ▶ We need more educators (and we're competing with the entire aerospace industry for those folks)
 - ▶ Undergraduate to T-TT faculty FTE ratio = 30.92
 - ▶ Graduate to T-TT faculty FTE ratio = 15.89
 - ▶ Total student to T-TT faculty FTE ratio = 46.82
- ▶ We need different visions of the University
 - ▶ Beyond T-TT
 - ▶ Teaching Teams
 - ▶ Industry involvement

Sustaining growth Part 2

What do our students need from us?

- Connection
- Education vs. Training
- More than "just" the math
 - Hands-on experiences
 - AI-proof learning opportunities
 - Preparation for the workforce and... life
- ...

Beneath the good news numbers

- ▶ The aerospace industry is not attracting all the students we could. **We are missing out on talent.**
 - ▶ Few URMs
 - ▶ Few women
- ▶ Our students are struggling with mental health. **We are struggling to help them all.**
- ▶ How do we address the gaps COVID caused?
- ▶ How do we make (keep?) academia an attractive career?