

American Association of Engineering Societies

Trends and Statistics in Engineering Education Degrees

AAES Engineering Workforce Commission Statistics
Presented by Patrick Glaser, Dir. of Research, McKinley Advisors

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Background

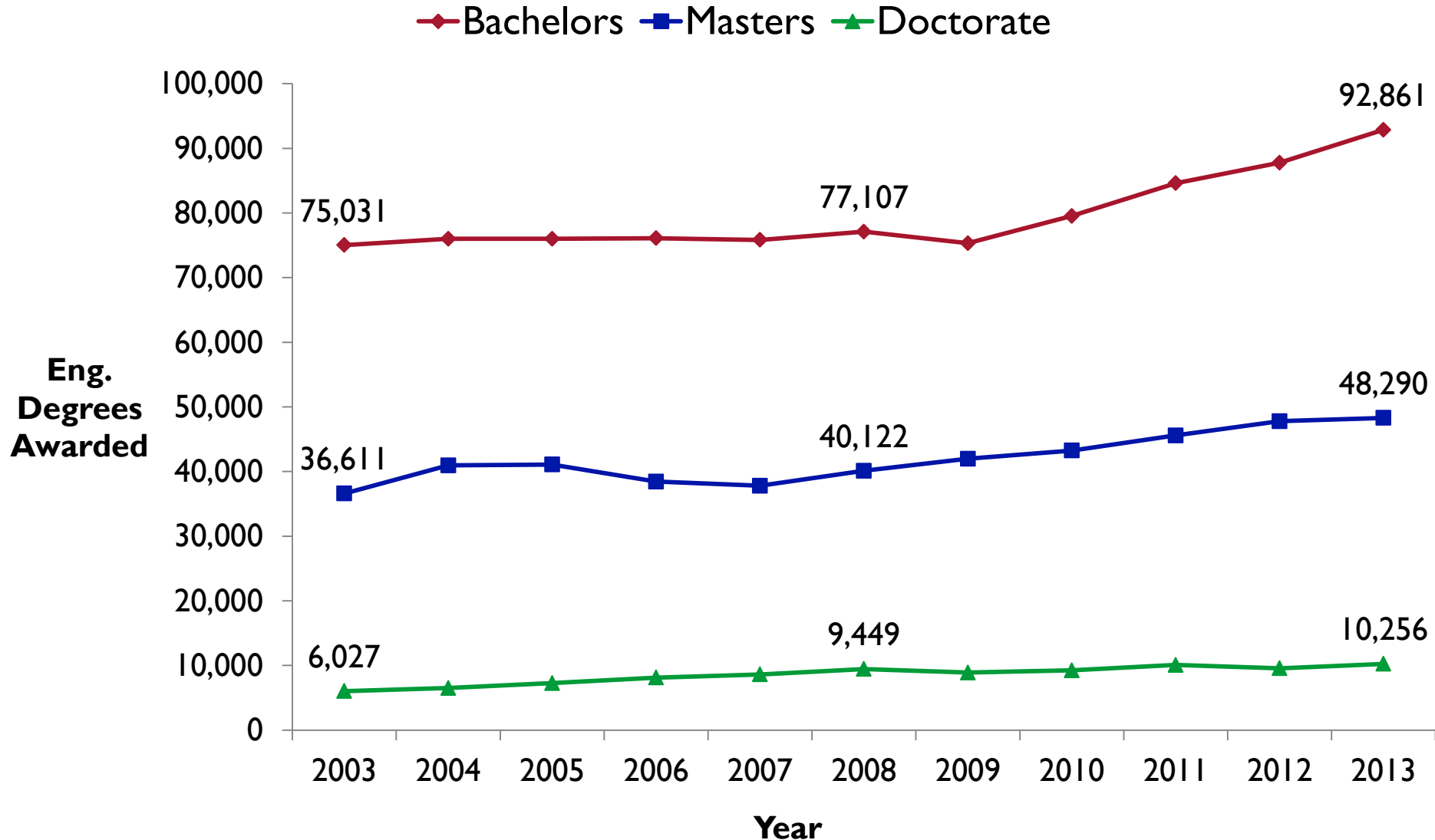
- American Association of Engineering Societies (AAES)
 - Engineering Workforce Commission (EWC)

Education Statistics

- EWC historical data
- External information and benchmarks

General Trends

Degrees Awarded in USA, 2003-2013, by Level

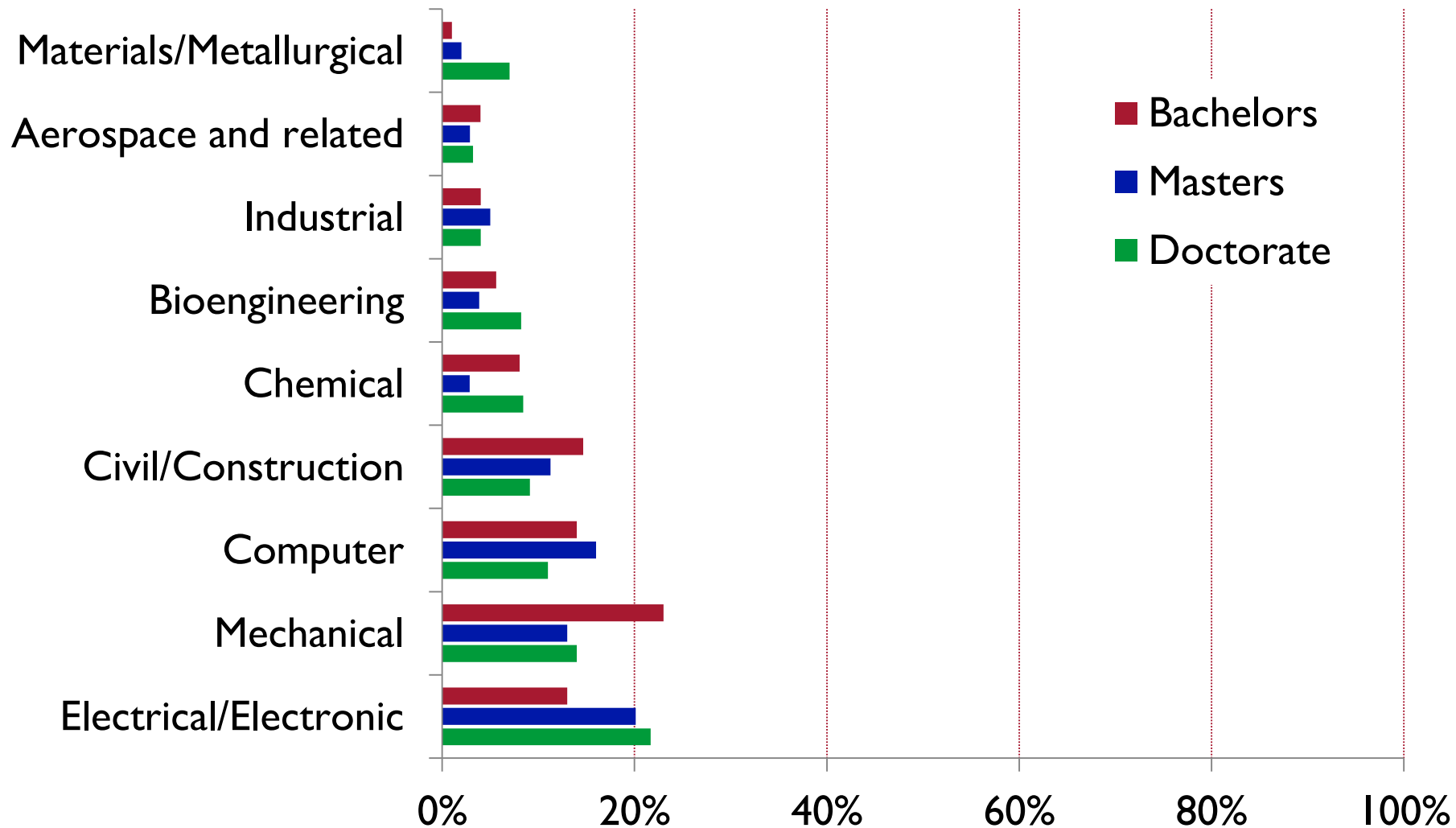


2003 – 2013 Trends in Diversity

- Gender distribution fairly constant
 - Bachelors (~18% female)
 - Masters (~23% female)
 - Doctorate (~22% female)
- Race, ethnicity and nationality distribution
 - Bachelors (~29% are non-foreign national minority groups, ~7% are foreign nationals)
 - Masters (~29% minority groups, ~42% foreign nationals)
 - Doctorate (~23% minority groups, ~54% foreign nationals)

Specialization

% of Total Degrees Awarded, 2013, by Level



2003 vs. 2013 Trends in Specialization

- Greatest Growth
 - **Manufacturing:** 3-4 percentage point growth in all education levels
 - **Computer:** 5 & 8 point growth in bachelors & masters degrees; resp.
 - **Electrical/electronic:** 6 point growth in bachelors ; 2 point growth (apiece) in masters and doctorates
- Greatest Reduction
 - **Industrial:** -4 point reduction in all education levels
 - **Mechanical:** 1-4 point reduction in all education levels
 - **Bioengineering:** 2-4 point reduction in all education levels

Summary

- **Growth**

- Constant growth in engineering degrees; most strong since 2008/2009

- **Diversity**

- Females represent about 20% of degrees awarded
- Minority groups represent 29% of bachelors degrees, 29% of masters degrees and 23% of bachelors.
- Foreign nationals represent 7% of bachelors, 42% of masters and 54% of doctorates.

- **Specialization**

- Growth in manufacturing, computer, electrical/electronic
- Reduction in industrial, mechanical, bioengineering

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