

The background of the slide is a grayscale photograph. The upper portion shows a large Ferris wheel, likely the Big Dipper at the Seattle Great Wheel. The lower portion shows a city skyline with various buildings and structures.

# MAXIMIZING ENTRY of ENGINEERING GRADUATES into the DEFENSE ELECTRONICS INDUSTRIAL BASE

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# THE CHALLENGES

- Demographic
  - Fewer traditional (white male) engineers available
- Social
  - Apparently lower interest among remaining engineering graduates in traditional electronics
  - Especially low interest among growing population of women and minorities
- Regulatory
  - Must employ clearable individuals



# THE SOLUTION REALITIES

- You have to
  - Compete for the best talent.
  - Accept that global US-based universities are not going to re-direct their curricular programs to focus on your area without substantial incentives.
  - Compete for nascent talent (expand from only “qualified” to include “qualifiable”)
  - Inform this administration’s immigration policies (70% of engineering graduate students are international students)



# THE SOLUTION STRATEGIES

- Provide thoughtful internships (including to freshman and sophomores)
  - Project content
  - Student social environment (shopping, outings, mentors, etc.)
- Accept value of trading interns to the overall enterprise
- Develop dual-use projects that show pro-social applications of defense technologies
- Engage in vigorous outreach to women and minorities
- Explore shared postdocs (e.g., NSF SBIR Postdocs Diversity Program)
- Read and internalize the March 2018 SIA Workforce Roundtable Summary Report