

*REMARKS BY MR. STEPHEN P. WELBY  
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FOR CHESAPEAKE INCOSE CHAPTER  
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# Department of Defense



- *We are a nation at war*
- *Over 1.4 million active duty men and women*
- *Over 1.1 million Guard & Reserves*
- *Over 737,000 civilians*



## *Our Mission:*

- *Protect our National Security*
- *Provide the military forces needed to deter war and prevail in conflict*



# DoD Engineering Enterprise

- 
- ***Worlds Largest Engineering Organization***
  - ***Over 93,000 Uniformed and Civilian Engineers***
  - ***Over 38,000 Acquisition Corps Certified Systems Engineers (SPRDE)***

# Systems Engineering Challenges

Managing Complexity

Managing Risk

Growing Future  
Engineering Leaders

# Managing Complexity

The Engineering Design Process

Engineering Fundamentals

Adequacy of Tools



# Systems Engineering Challenges

Managing Complexity

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Growing Future  
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# Growing Great Engineers

## Breadth

- Awareness of and appreciation for other functional areas
- Understanding of system lifecycle and processes
- Knowledge of other engineering disciplines and how they integrate into a system solution
- Knowledge of product domains

## Depth

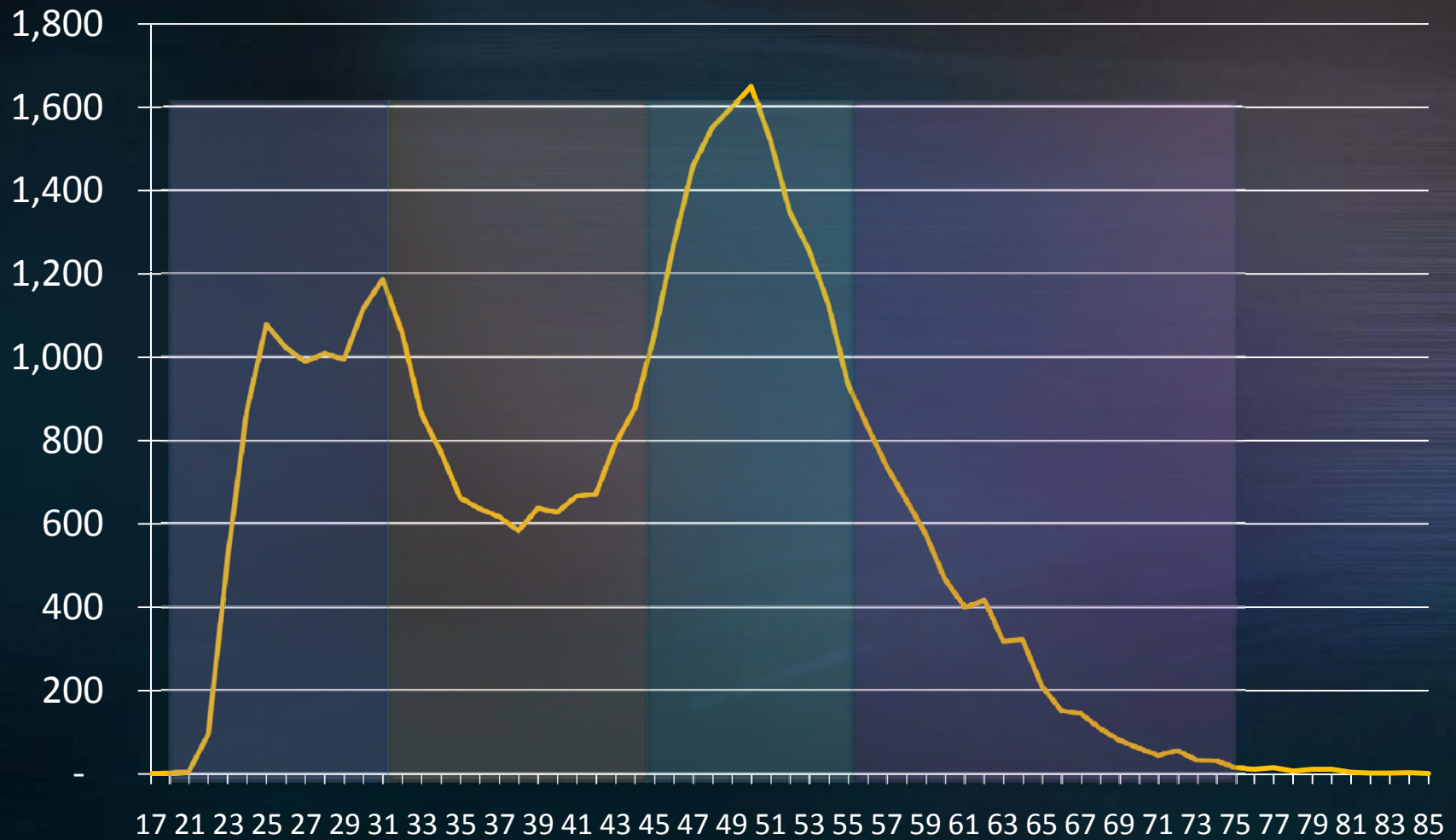
- Extensive expertise and experience in one or more engineering disciplines and in one or more product domains

## Leadership

- Ability to motivate and inspire individuals and teams
- Comfort in dealing with complexity
- Focus on underpinning decisions with data
- Capability to make tough technical decisions



# Workforce Demographics



# Opportunities

Better Tools

New Approaches to Engineering  
Education

Growing an Engineering Culture



Thank You