

**Create and Deliver Superior Products Through Innovative Minds**

**Solutions**



**Missions**

**Technology**

**Skunk Works – Solution Provider**

**LOCKHEED MARTIN**

# Trends & Challenges



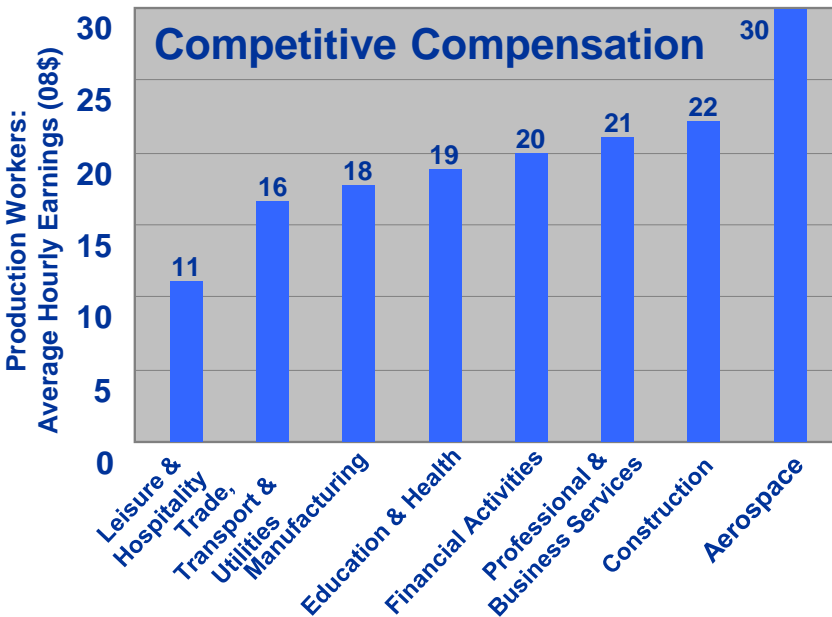
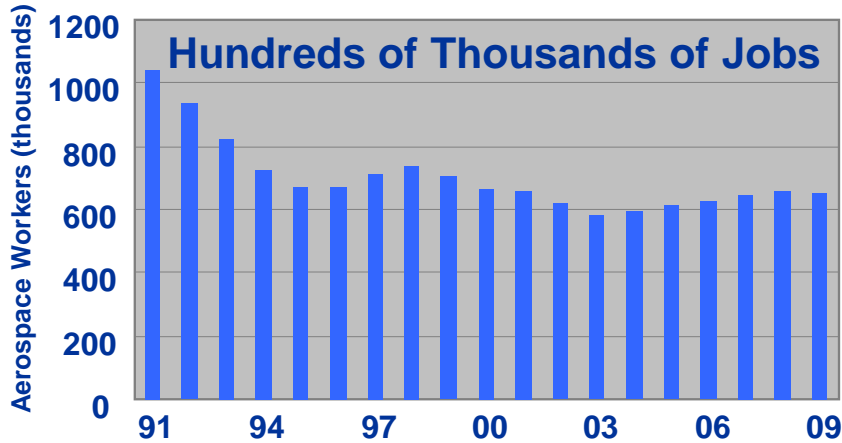
- **Declining Support for Defense Spending**
- **Defense Budgets - Product Implications**
- **Globalization of the Supplier Base**
- **Aversion to Risk**
- **Future Shortage of Skilled Workers?**

**Dynamic industry requires dynamic response**

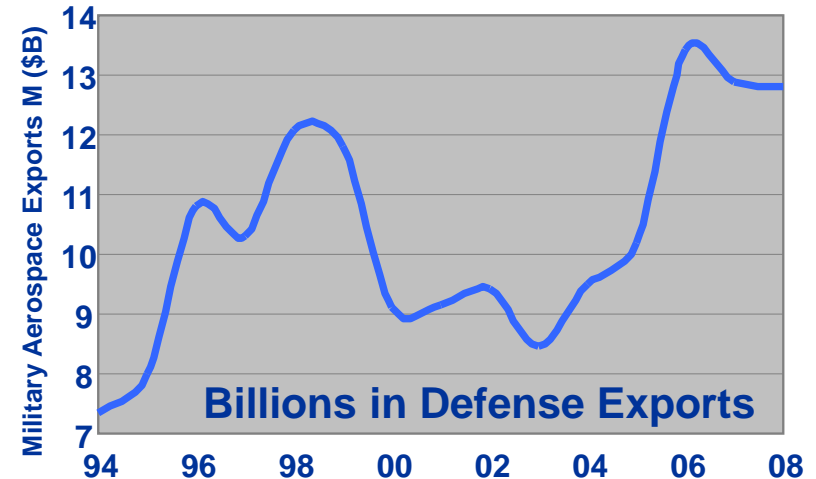
# A&D Economic Contributions



## Providing Quality Employment



## Keeping America Competitive around the Globe

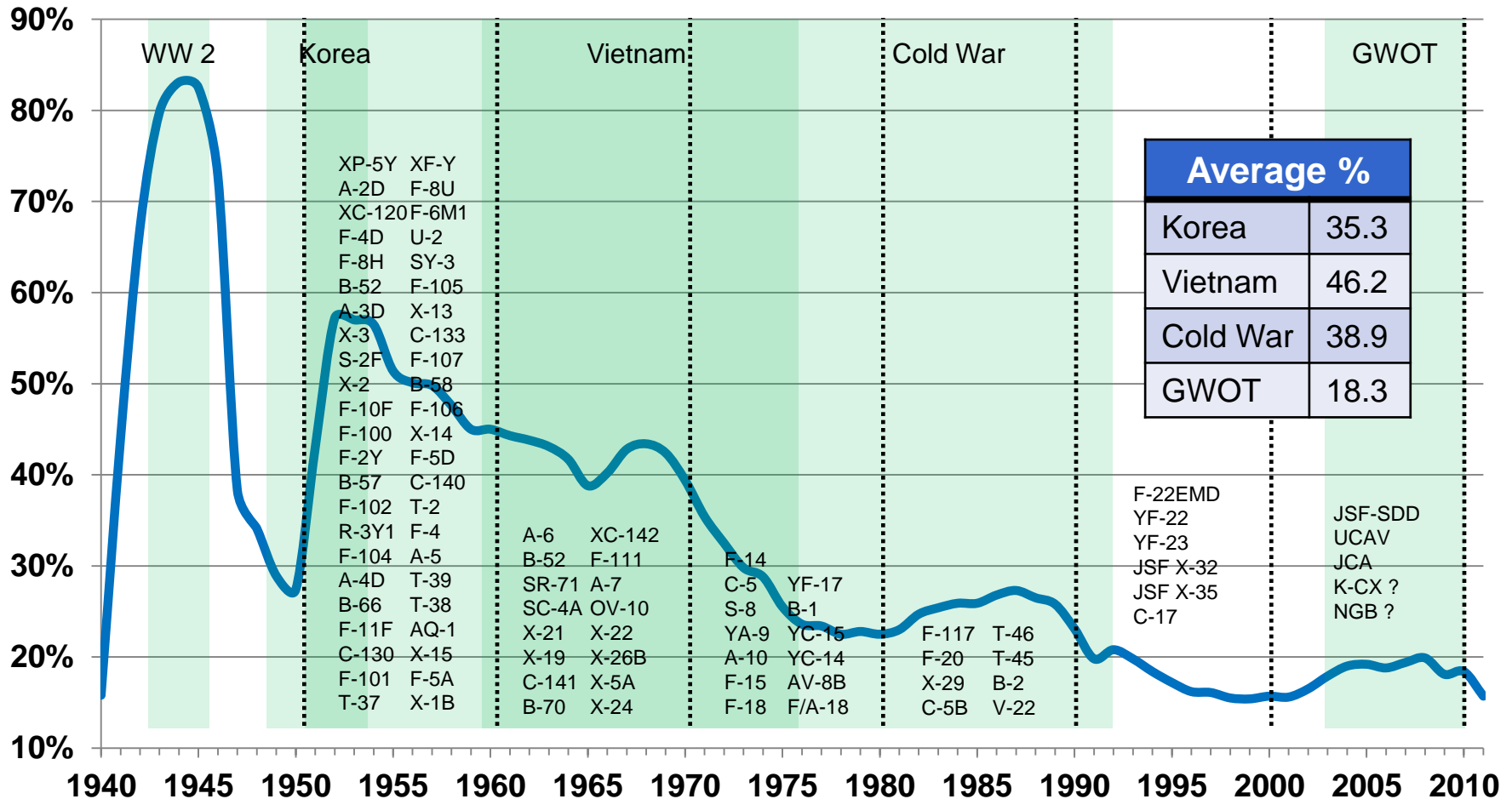


- Aerospace R&D Investment 13.3% of Sales Versus 2.9% Industry Average
- Average Aerospace Compensation \$38K per year with A&D at \$62K per year
- Significant Pressure for Global Suppliers Fueled by Many Factors, Wages Being One

# Defense Investment as a Percentage of Total Federal Budget



DoD Budget as % of Total Federal Budget 1940-2011 (DOD)



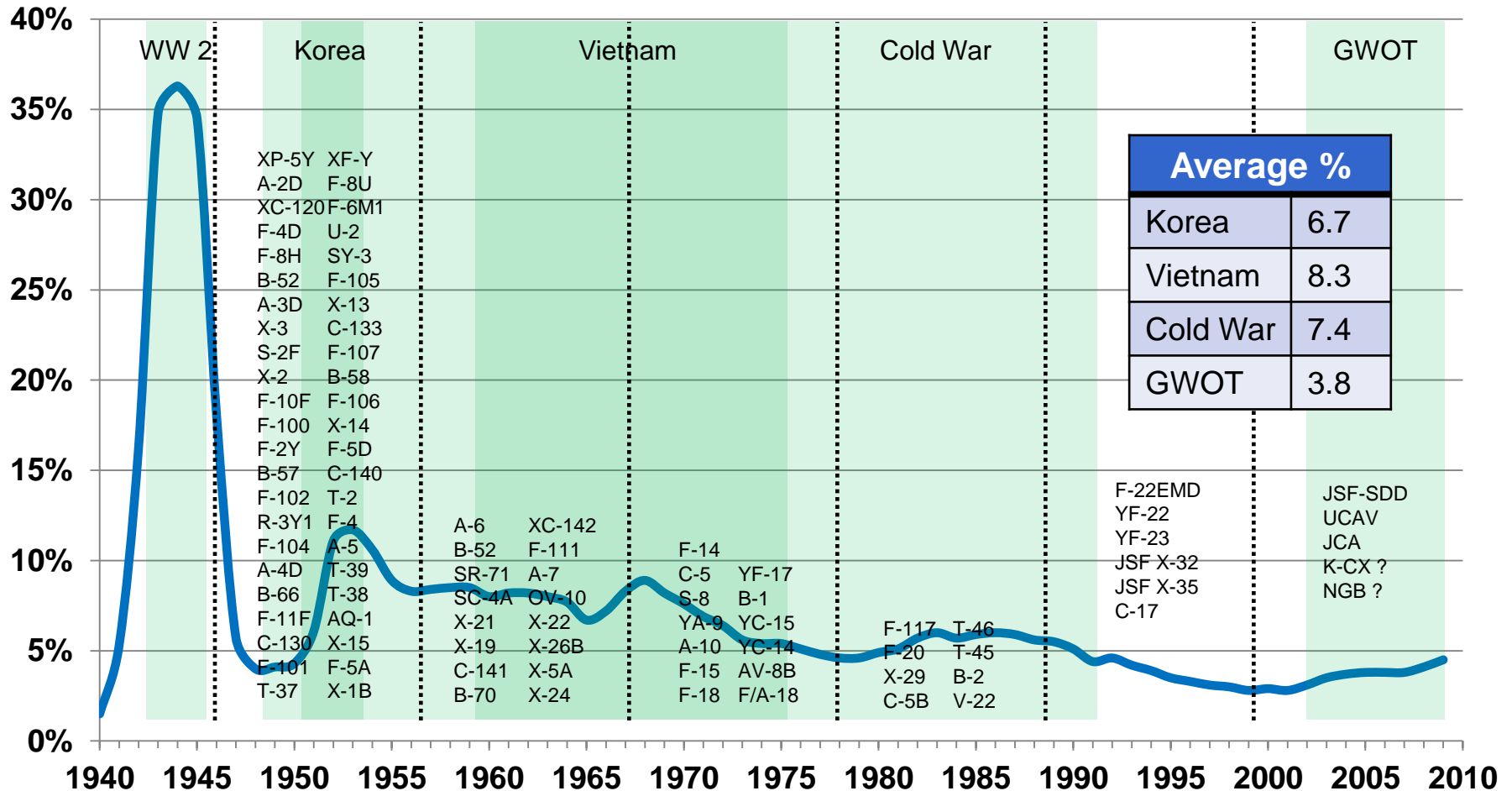
Source: National Defense Budget Estimates for FY2011, Office of the Undersecretary of Defense (Comptroller), March 2010



# Defense Investment as a Percentage of Gross Domestic Product

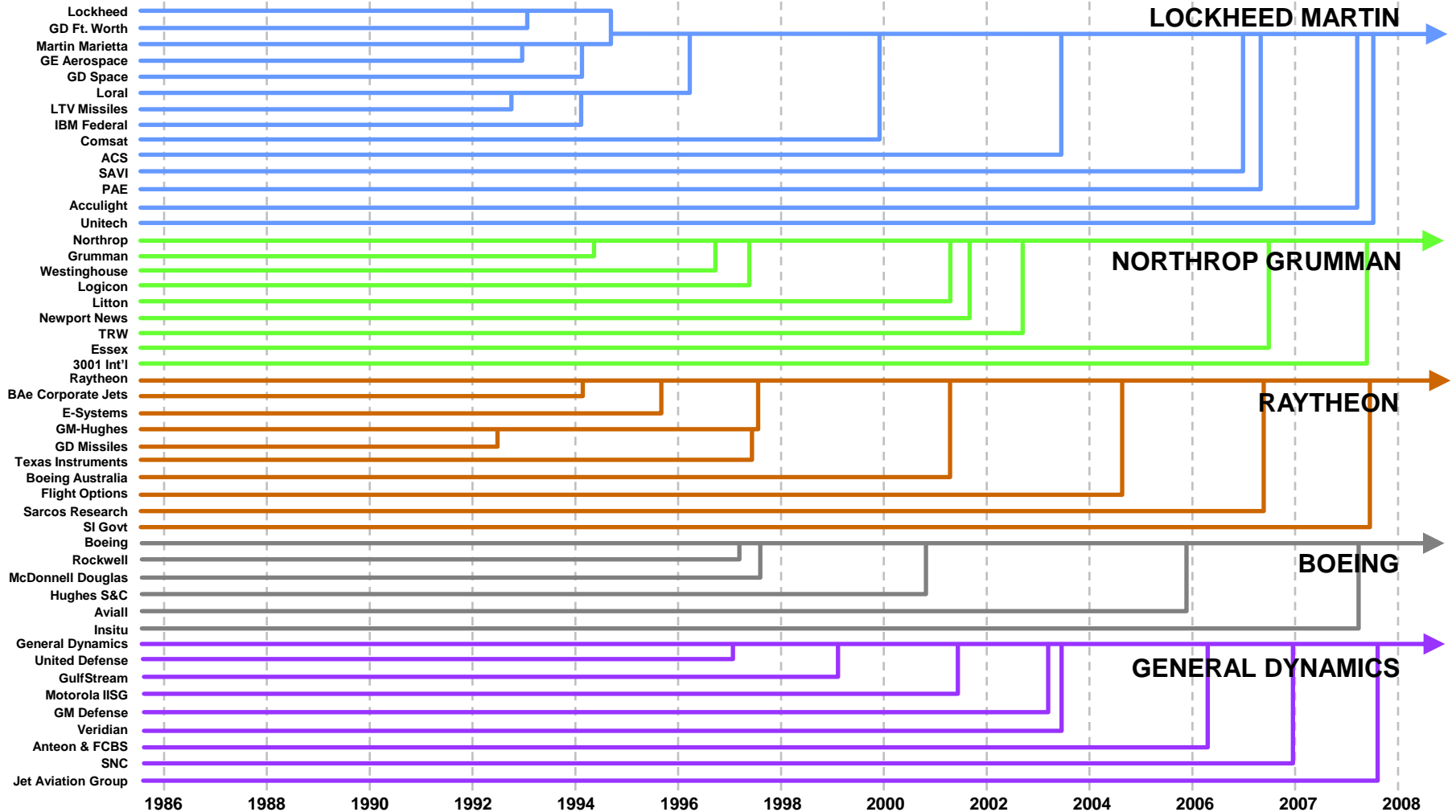


## DoD Budget as % of GDP 1940-2009 (DOD)



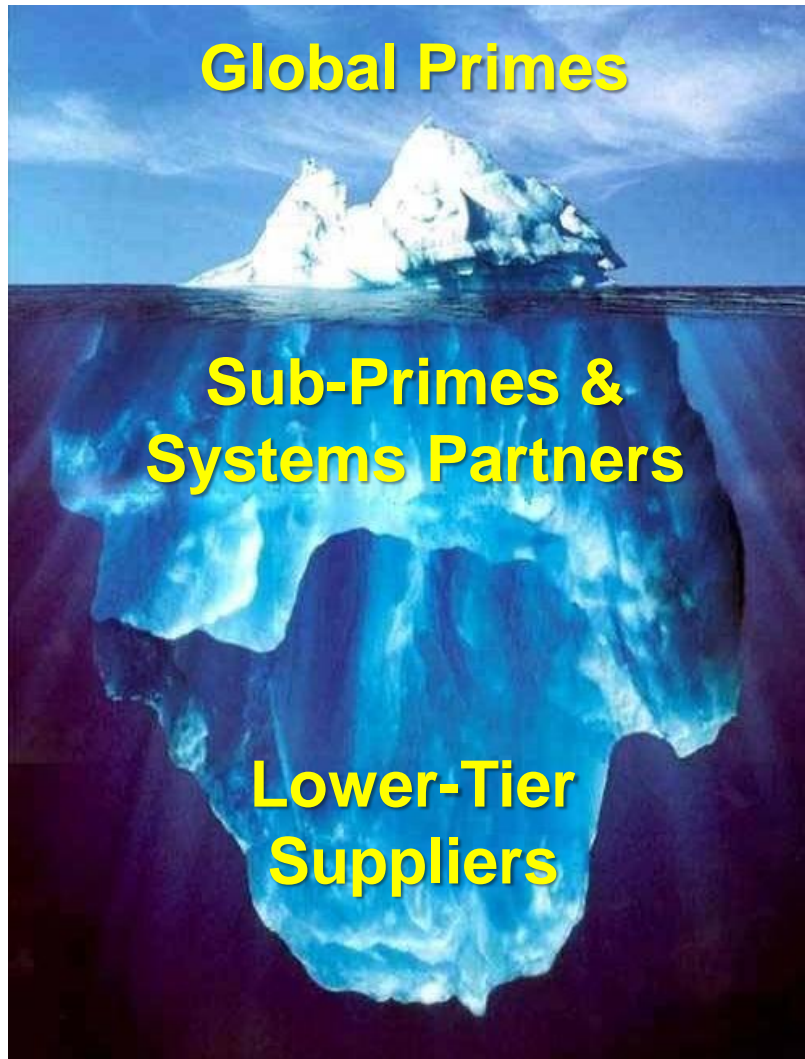
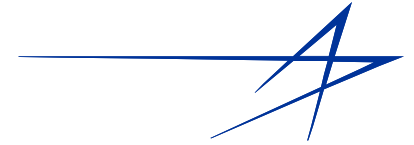
Source: *National Defense Budget Estimates for FY2011*, Office of the Undersecretary of Defense (Comptroller), March 2010

# Defense Investment Implications – Industry Consolidation



**Reduced Demand - Reshaped the Primes**

# A&D Industry Make-Up



- Typically primes perform 30% of work content
- Critical systems and materials suppliers
- Companies in all 50 states & worldwide
- Includes small, disadvantaged and minority-owned businesses
- Experience base across industry being lost at an alarming rate
- Cost concerns have reduced capability

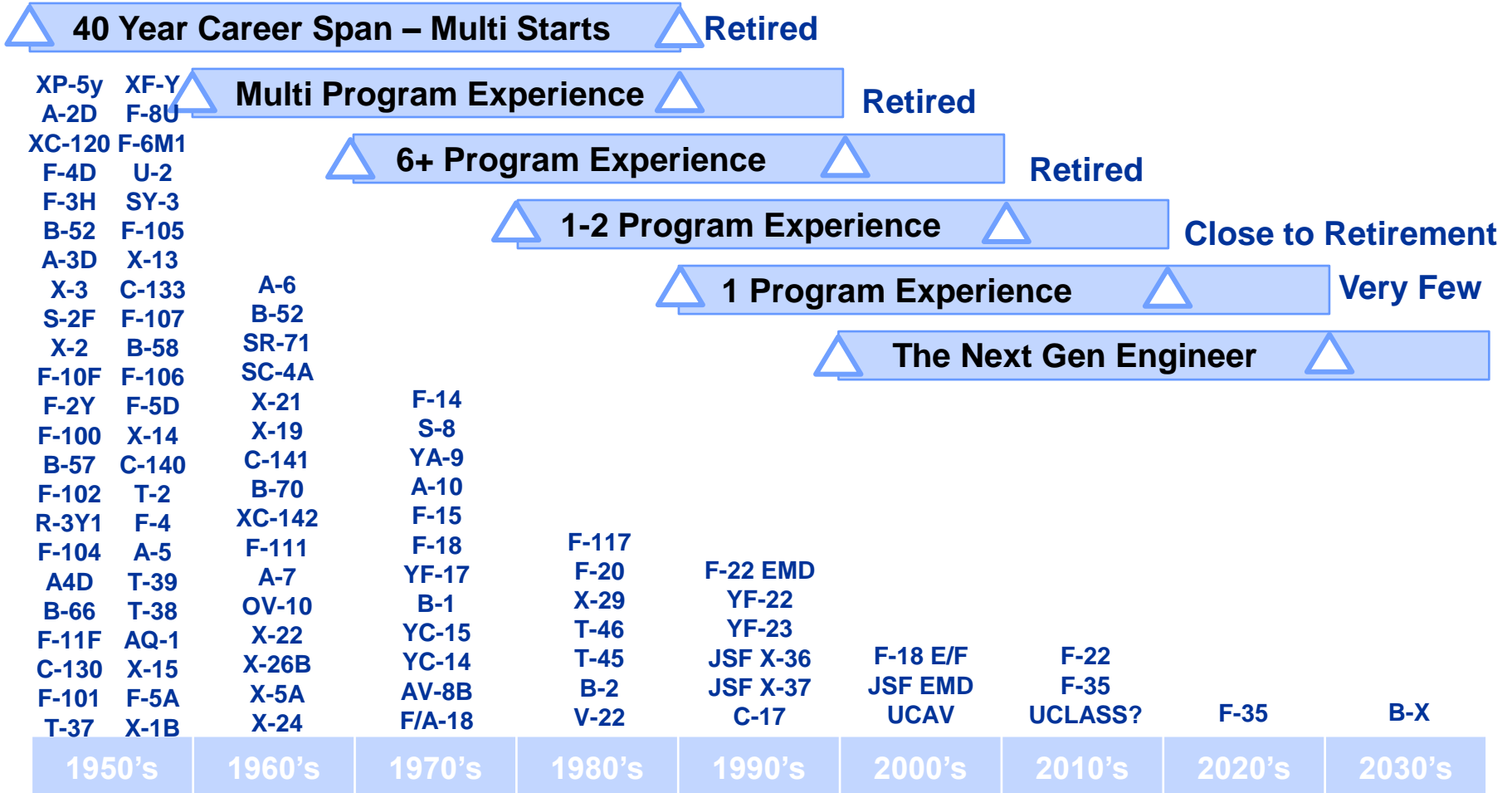
**Globalization Has Significantly Changed Supplier Landscape**

# The Challenge of People



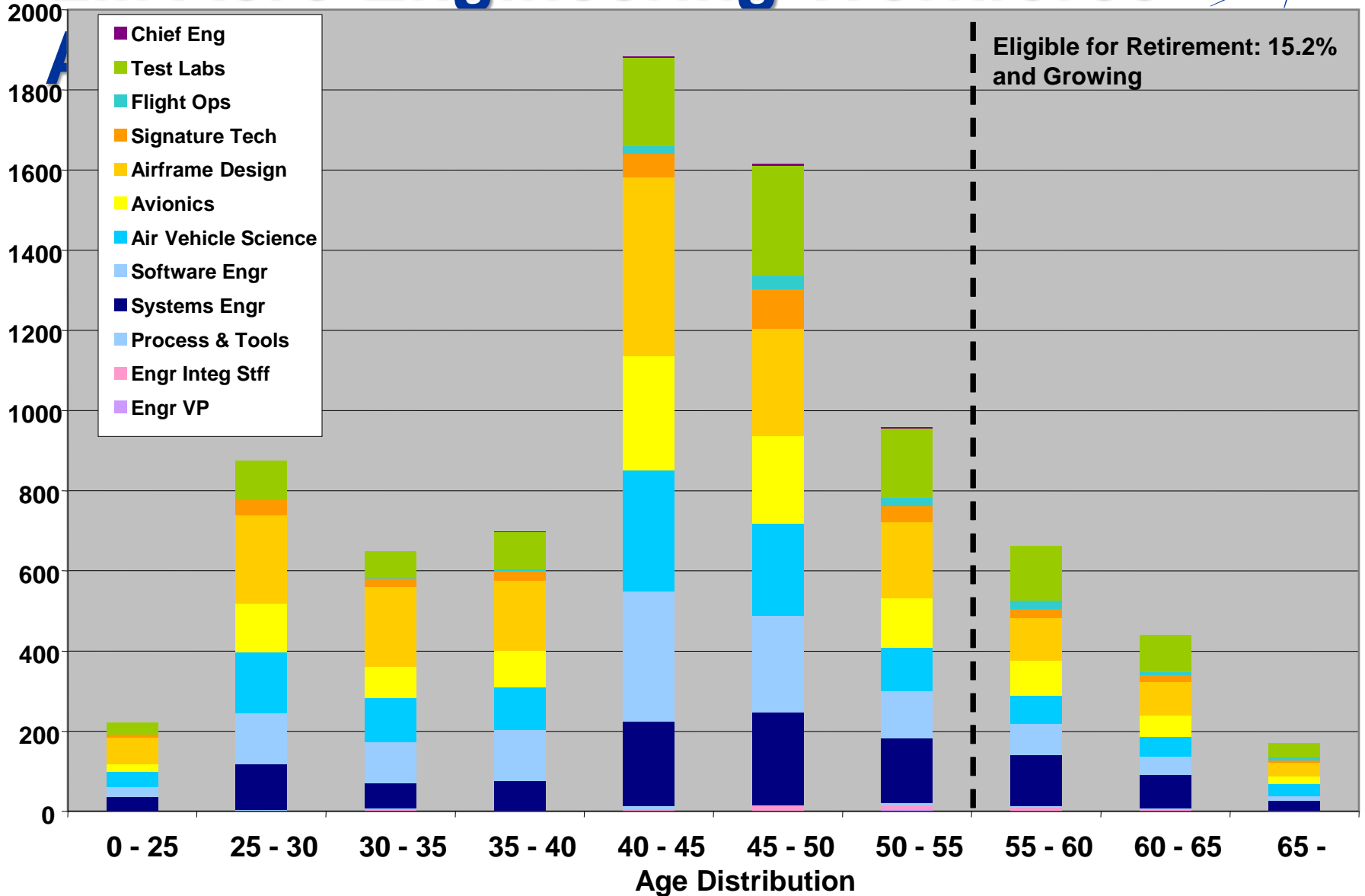
## Declining Experience Levels in Military Aircraft Programs

(Vertical Bars: Military Aircraft Programs Starts, Horizontal Bars: Typical 40 Year Career Span)

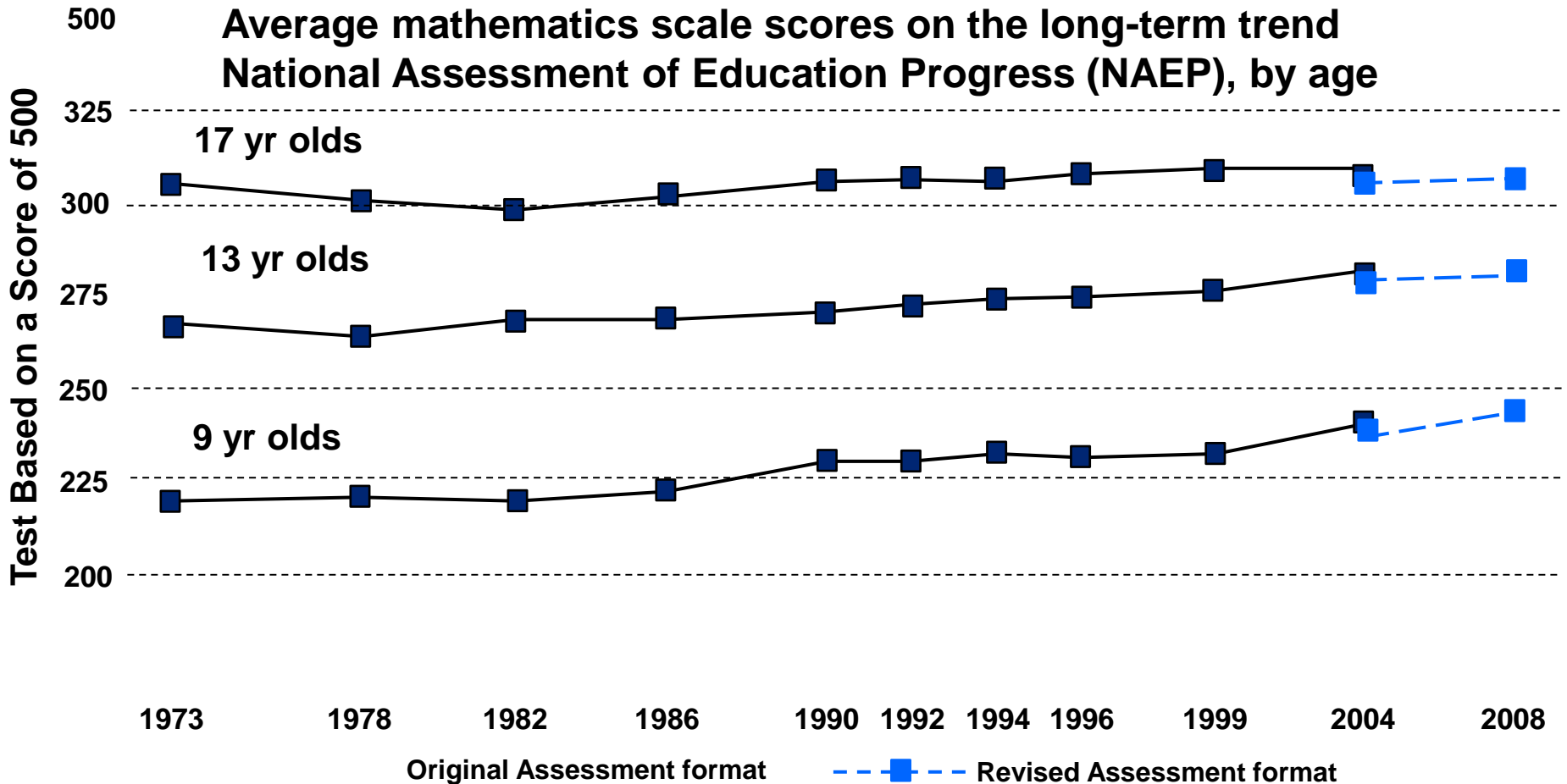




# LM Aero Engineering Workforce



# Mathematics Scores



**Scores of High School Graduates in Math Have Remained Relatively Flat**

Source: U.S. Dept. of Education

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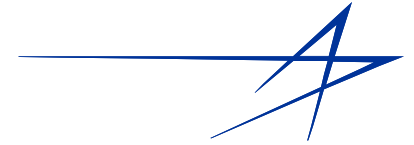
**Technology**

**LOCKHEED MARTIN**

***Back up***



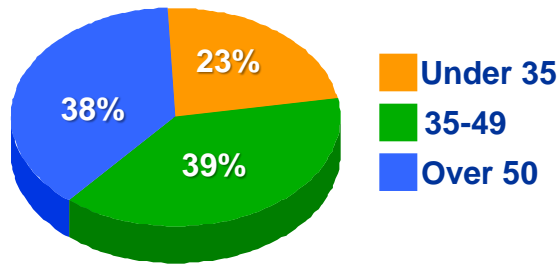
# A&D Workforce Dilemma



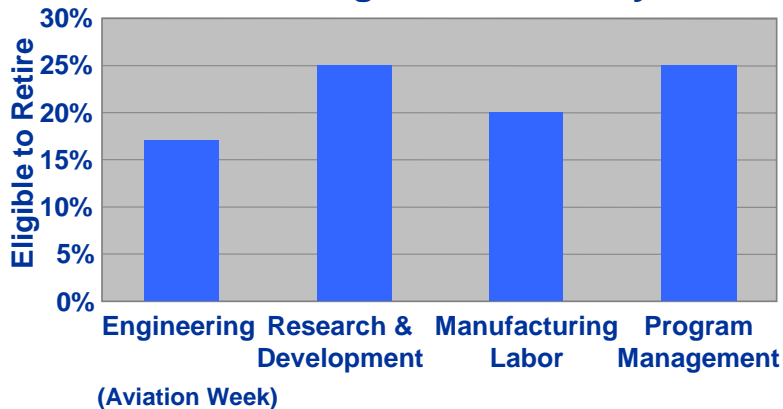
## *A Shrinking Pool of Skilled Labor?*

**As the A&D Workforce  
is Expected to Decline**

**Workforce Age Distribution**

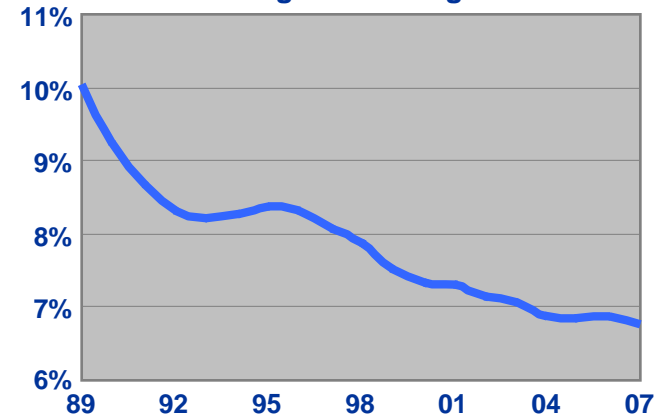


**Workforce Eligible to Retire by 2013**



**New Science & Engineering Talent**

**Science and Engineering as % of Total U.S.  
Undergraduate Degrees**



**Declining Popularity of Science and  
Engineering Among Undergraduates**