

The Next Gen Space Workforce

**Some Data and Questions
in Advance of the**

NASA Strategic Management Council

April 2008



NASA Today is Mono-Generational

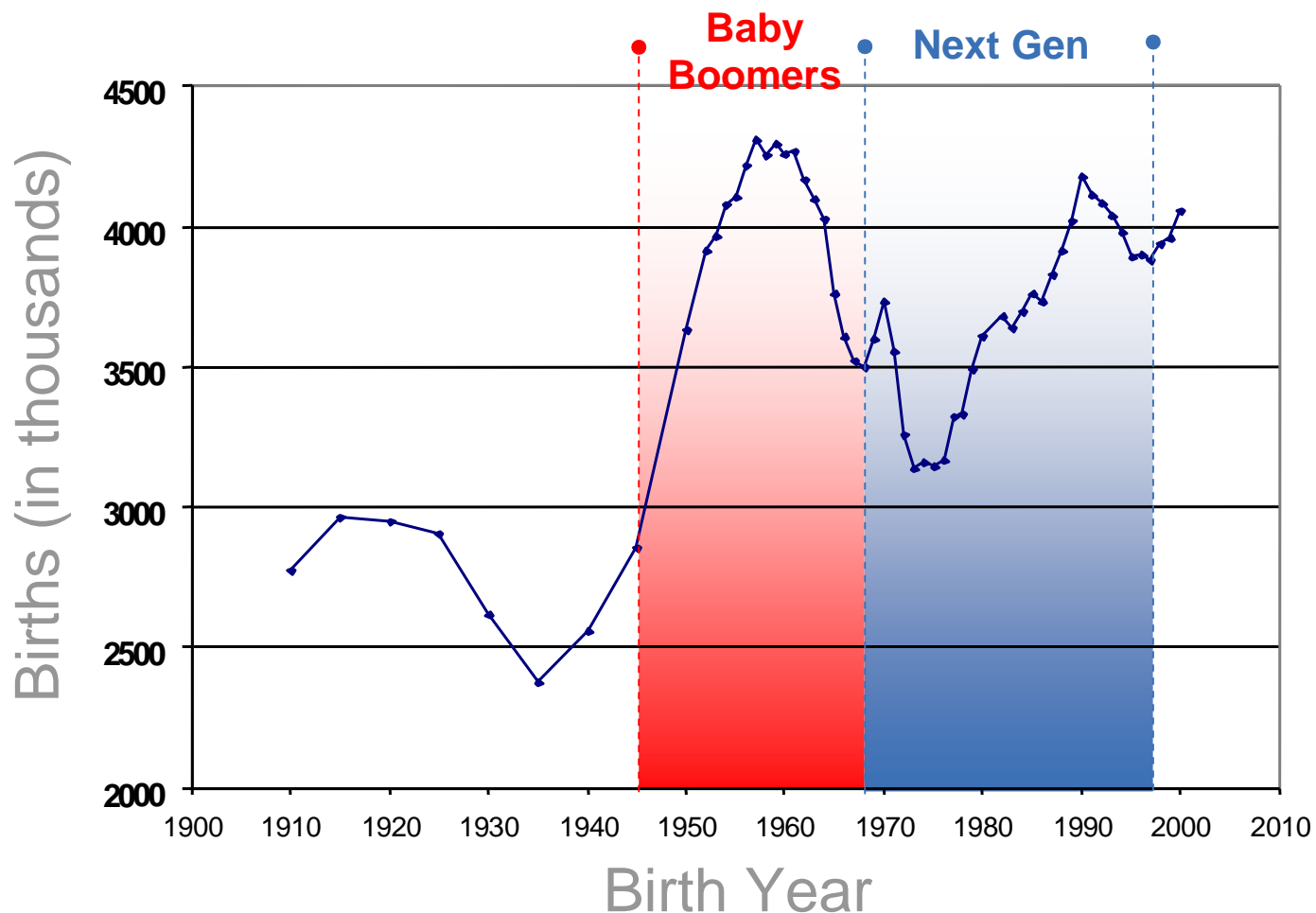
Over the next few slides you will see:

- The overall space workforce comprised almost exclusively of Baby Boomers – i.e. “Mono-Generational”
- There are fewer younger workers at NASA now than in any time in its history
- The average age of new hires at NASA is increasing
- NASA’s attrition is low – so there are few new slots for new employees



What Are the Generations?

- NextGen = Generations younger than the Baby Boomers
- NextGen = “Generation X” + “Millennial Generation”

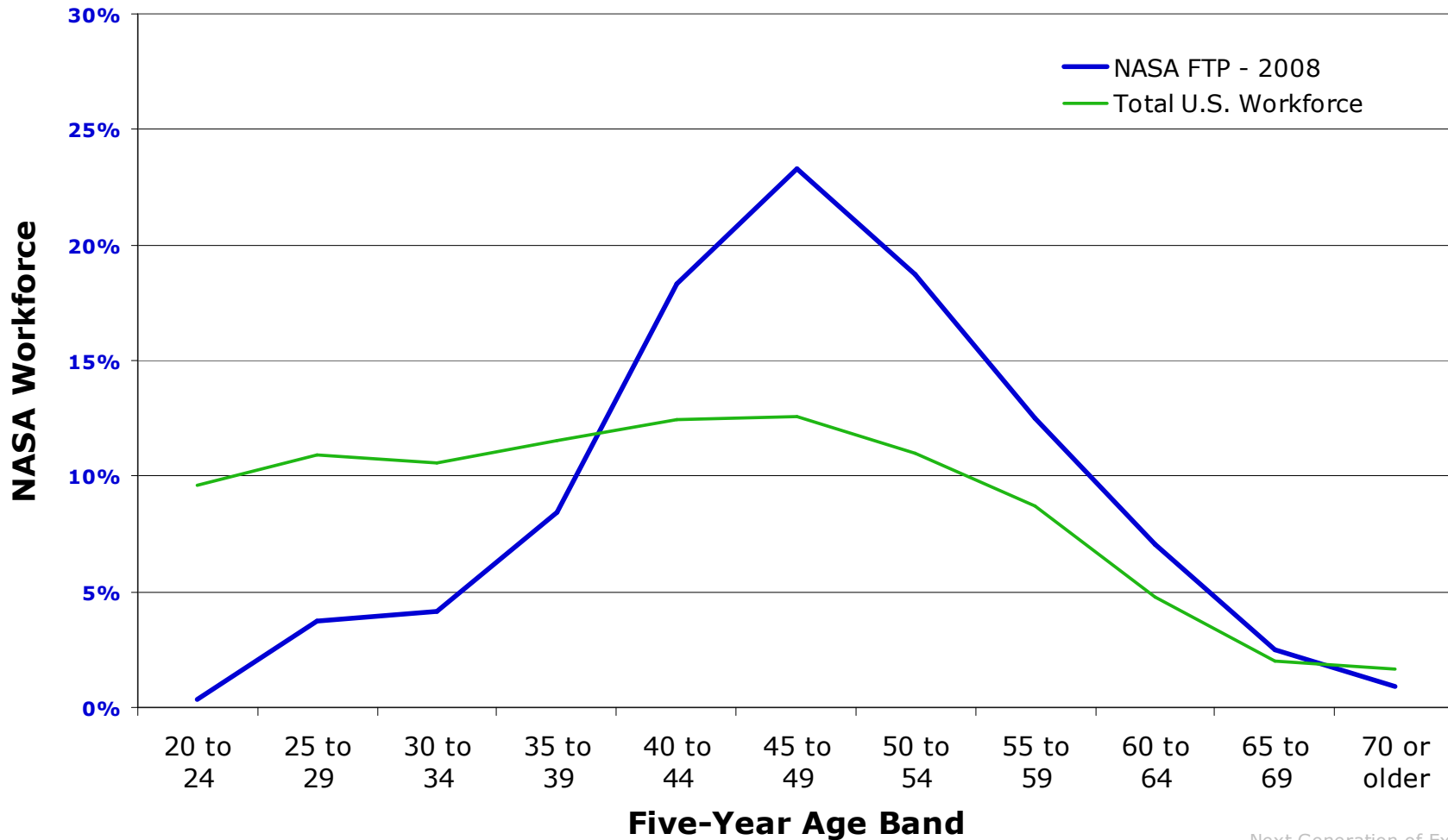




The NASA Workforce in Context

- NASA is mono-generational – it’s “Baby Boomers”

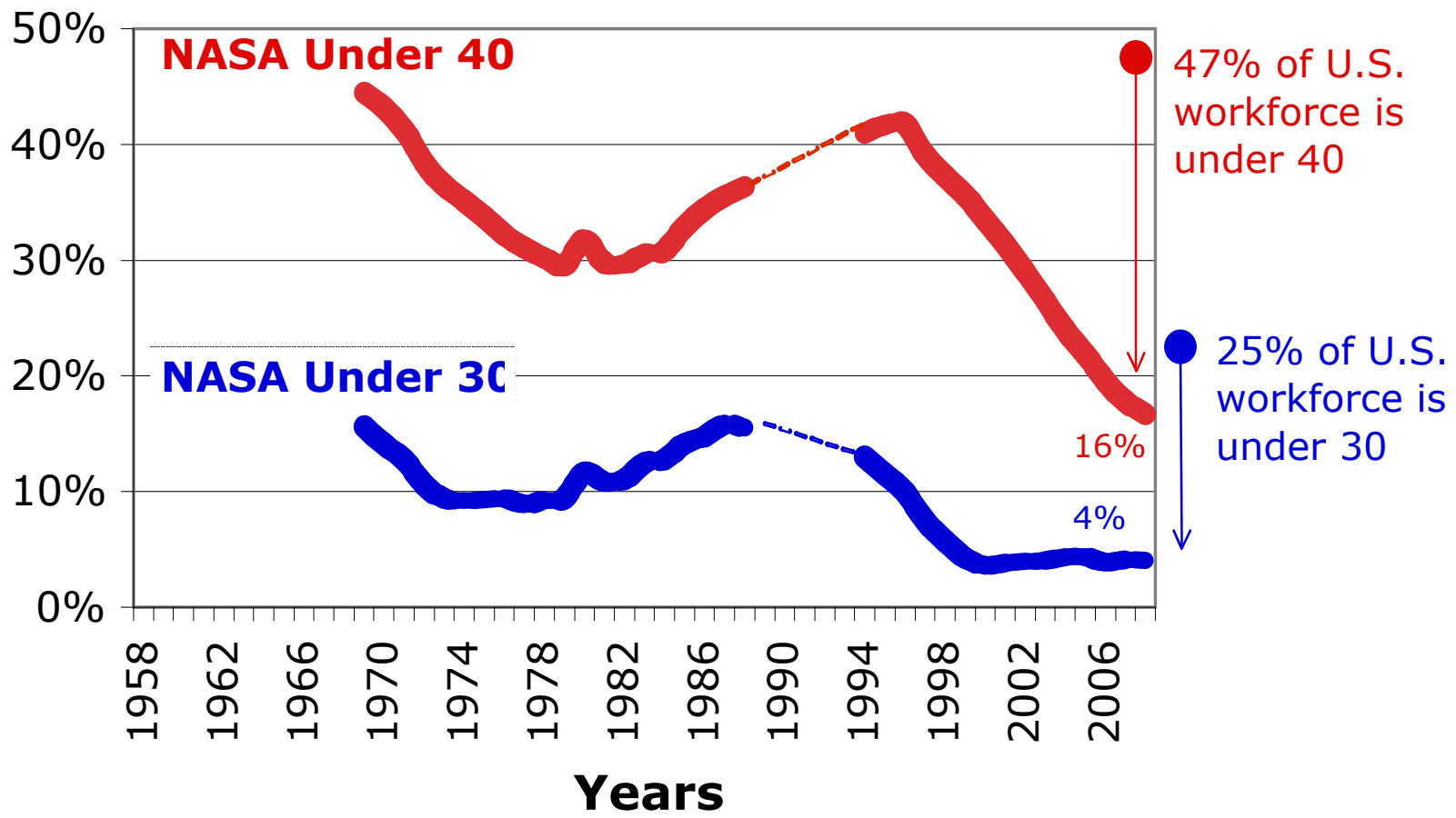
**The NASA Age Distribution
Contrasted with the U.S. Workforce**





NASA Workforce Under 40: Historic Low

NASA Workforce

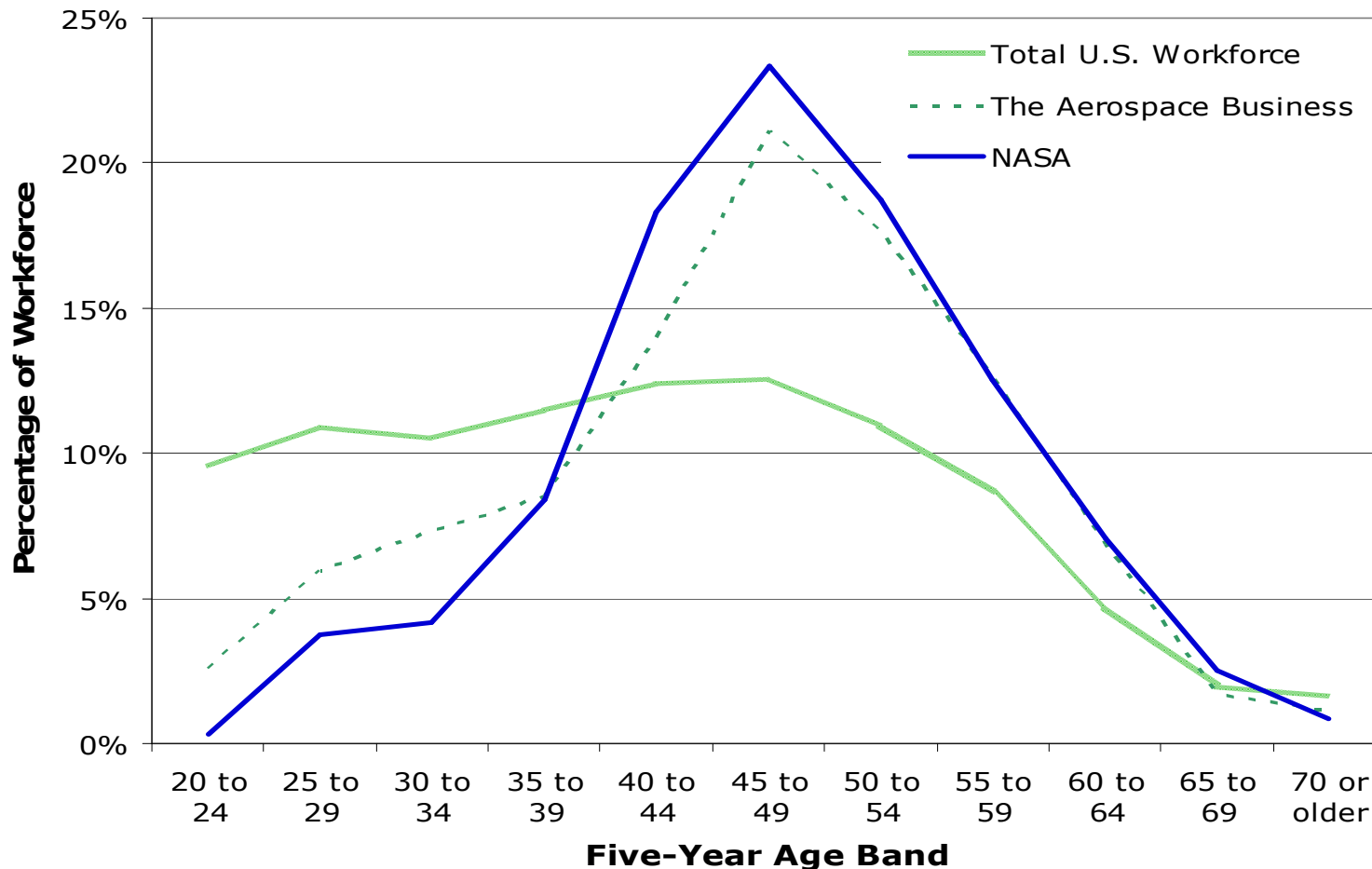




NASA and the Aerospace Sector

- There is more NextGen workforce in the Aerospace Industry
- But NASA's contractors basically mirror NASA's age profile

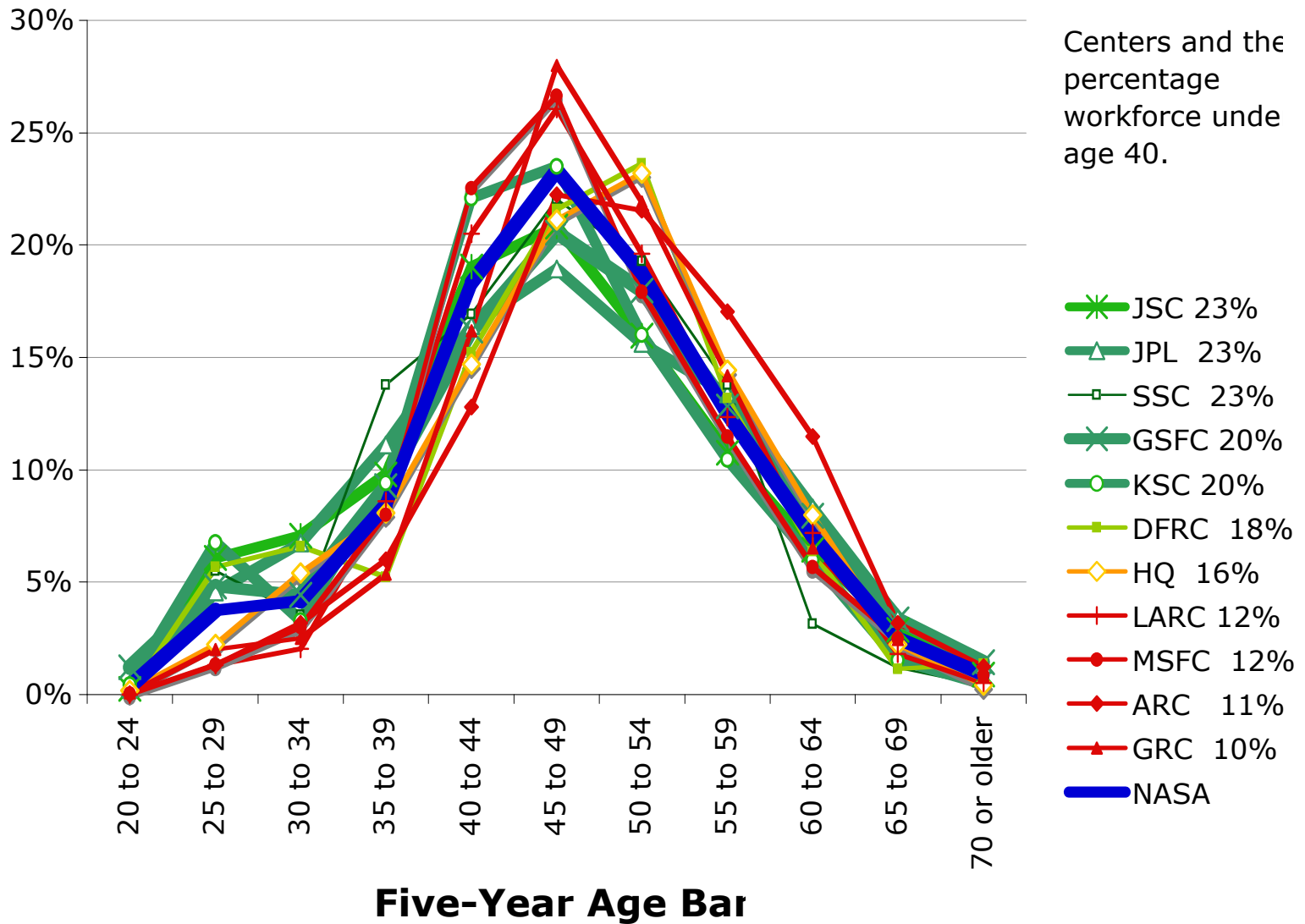
The NASA Age Distribution in Context





No NASA Center Breaks the Trend

- All centers have nearly identical age profiles

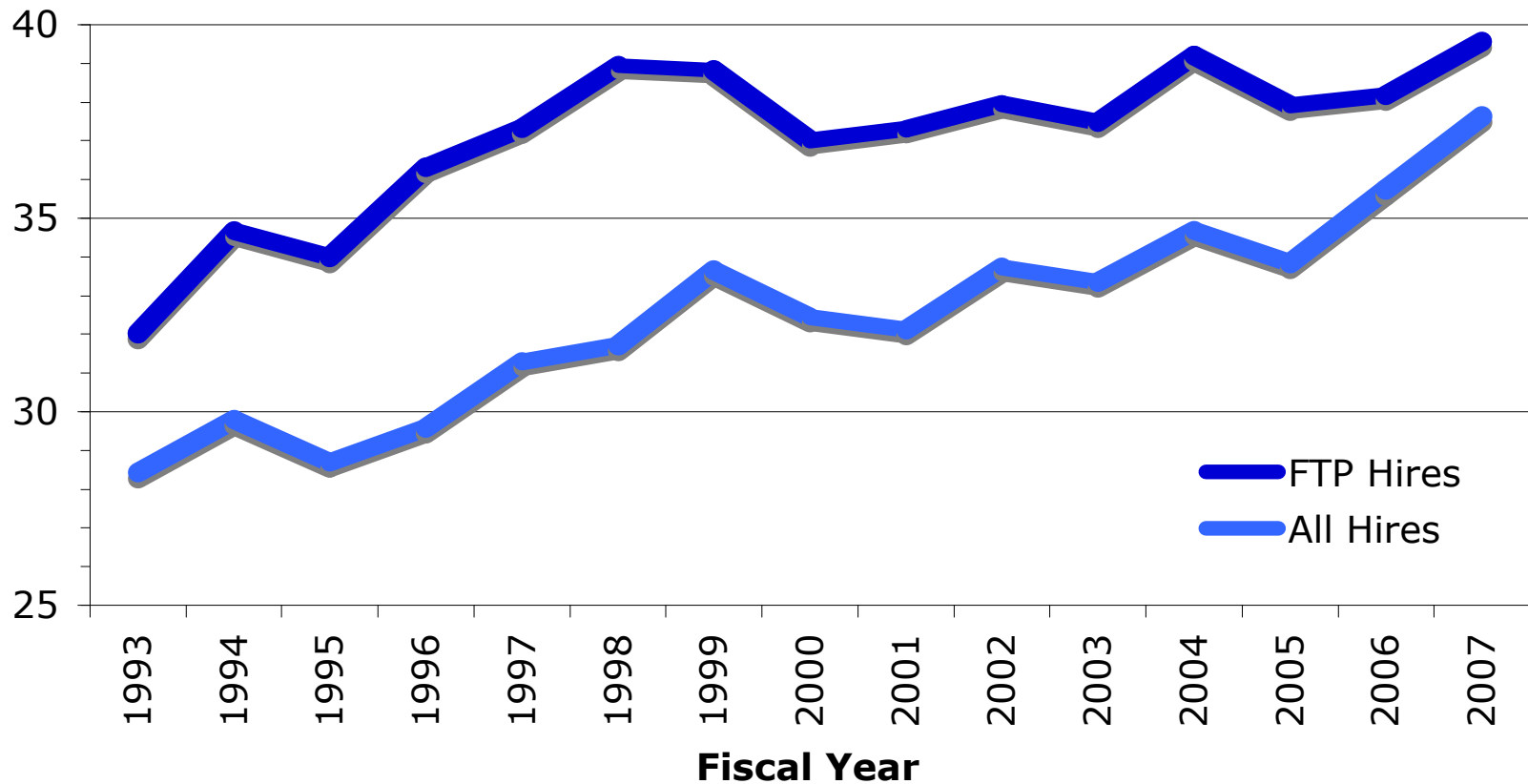




NASA is Hiring Older Employees

- Despite best efforts, is next-generation hiring actually a priority?

Average Age of NASA Hiring

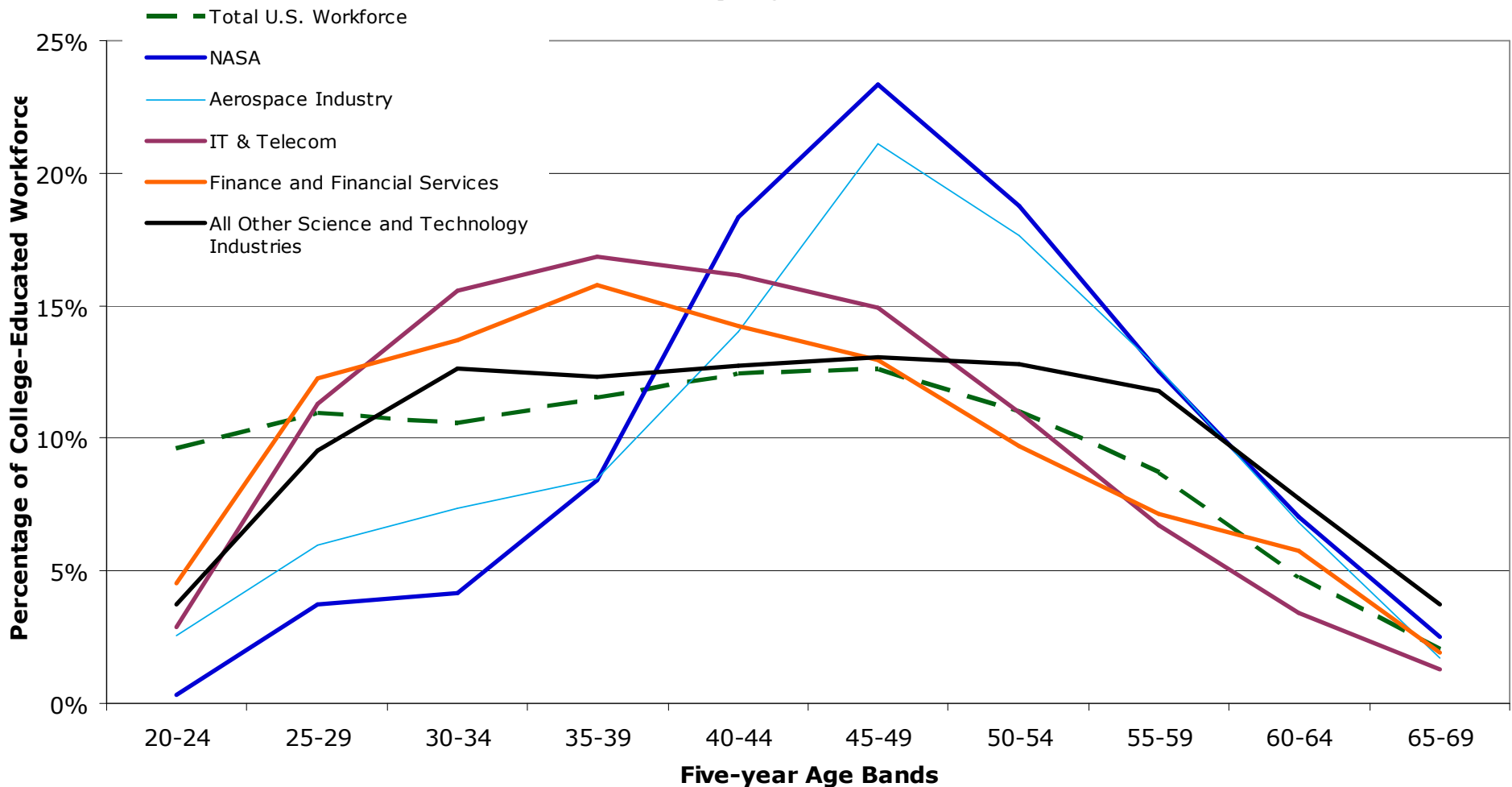




And NASA is Notably Different...

- The data is hard to break down by specific “hi-tech” industries, but available data does show that NASA is old by comparison

Industry Age Profiles





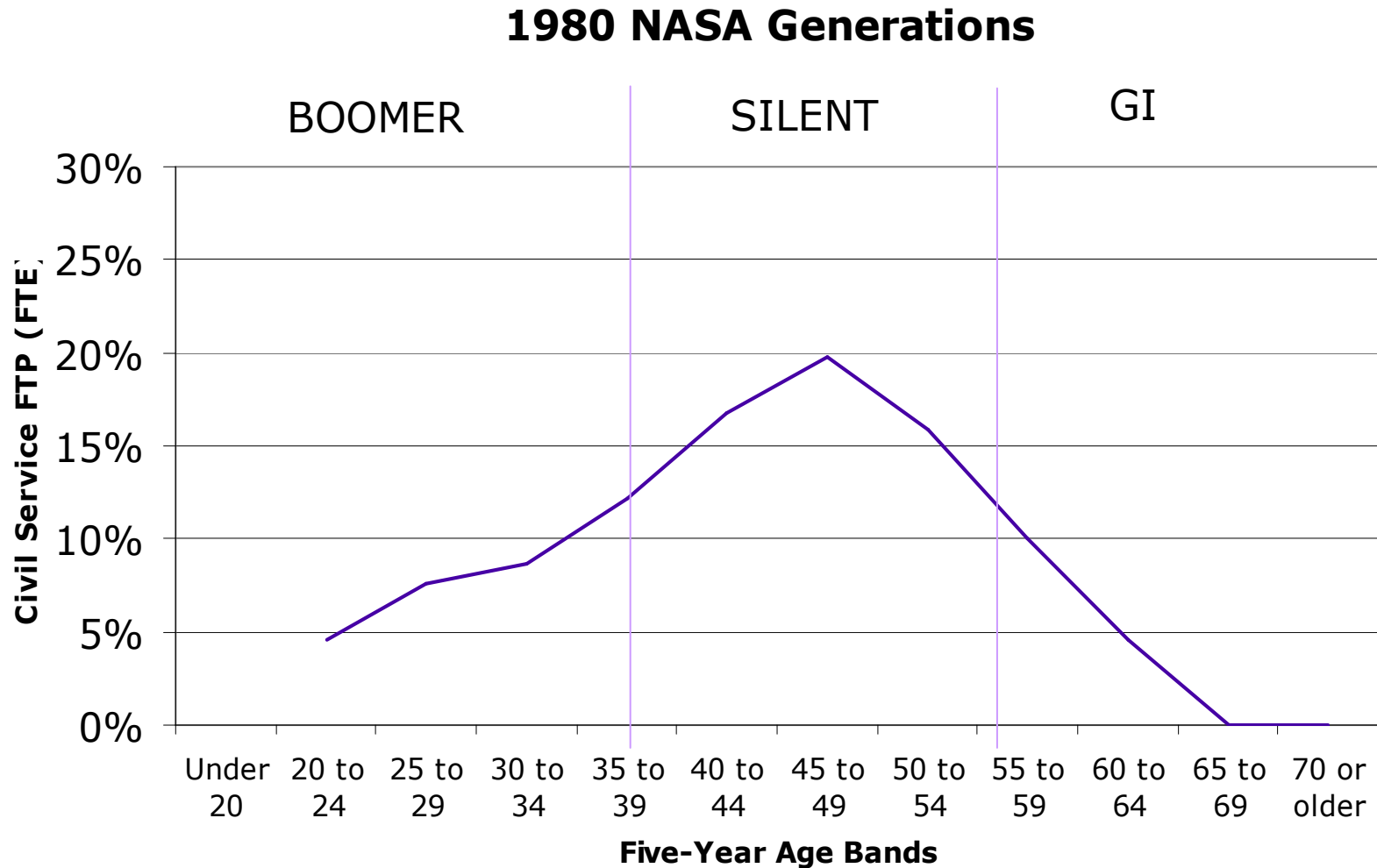
Is This a Unique Period?

- In the next several charts you will see that NASA had a similar age demographic in 1980
- So, if NASA was able to successfully implement its missions since 1980, does that mean we will be successful in the future?
- This presentation does not answer that question definitively – rather, it points out why today is not 1980



NASA in 1980 – A Familiar Picture

- Baby Boomers were once a very small part of the agency



- See also Slide 6: in 1980 the under-40 and under-30 workforce were at a local minimum



But, is 1980 Analogous to Today?

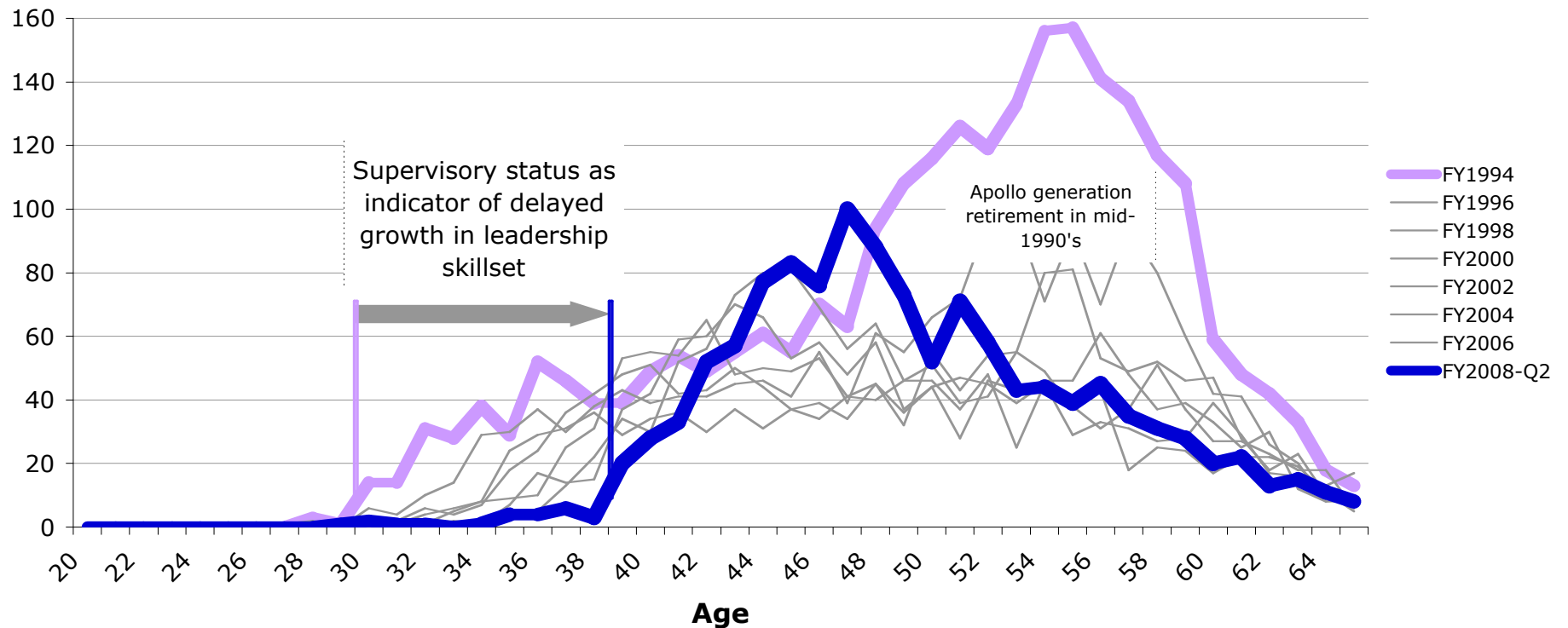
- Both today and in 1980, the majority of NASA's workforce was still 10+ years from retirement
- In 1980 NASA was at the tail end of a human spaceflight gap
 - Today we are on the verge of a human spaceflight gap
- In the years before 1980, NASA is said to have suffered a “brain drain”
 - In the years that *followed* NASA's lost its “technical culture”
 - Through its practice of “contracting out” NASA adopted a bureaucratic and management culture
- Is NASA's current younger workforce getting the experience it needs to continue to manage successfully?
 - See the next chart



Too Long for Management Experience?

- Today's workforce needs 10 years more time in NASA to get management experience (compared to the workforce just 15 years ago)

NASA S&E Supervisory Workforce



Next Generation of Explorers Dataset, Henning, 2007

*If NASA lost its "Technical Culture" after 1980, what will this trend do to NASA's 13
"Management and Bureaucratic Culture" in the next decade?*