



International Union of Aerospace Insurers (IUAI)

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IUAI International Union
of Aerospace Insurers

Pilot Shortage and Age Studies

Pilot Shortage and Age Studies

- Current and Predicted Pilot Populations and Shortages
- Pilot Age Regulatory Environment
- FAA ATC Age Study
- FAA Pilot Age Study
- Implications for Insurers
- Summary

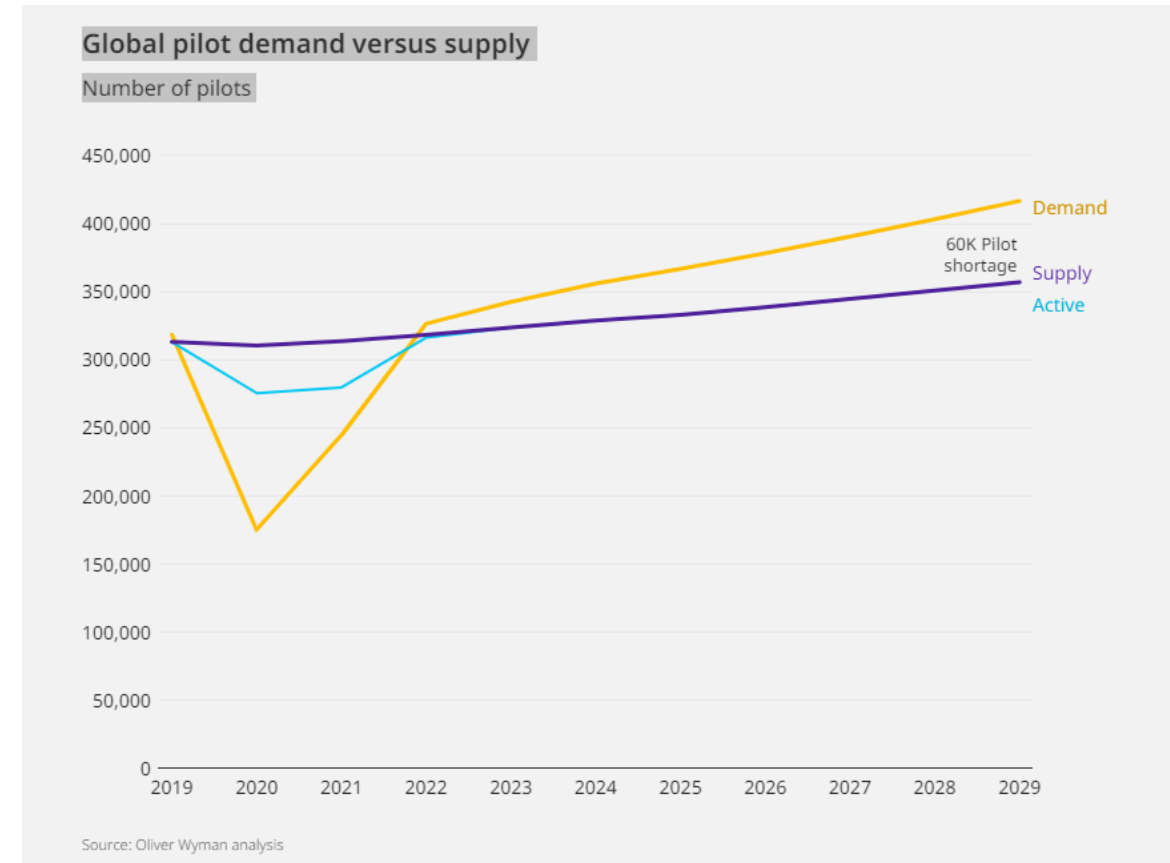


<https://www.forbes.com/sites/tedreed/2022/01/10/hero-pilot-backs-easy-fix-to-pilot-shortage-just-let-us-fly-past-age-65/?sh=7dbce5766052>

Current and Predicted Pilot Populations and Shortages

- An ERAU study shares the following statistics:
 - 305,000 active commercial pilots worldwide in 2018
 - 790,000 pilots required to meet estimated demand by 2037
 - 267% increase in pilot population
- Contributors to Shortage
 - Mandatory Retirement Age Regulations
 - Minimum Hour Requirements
 - Training Costs
 - Reduction in Military Aviation Pilot Population
 - Compensation and Fatigue Factors

<https://commons.erau.edu/cgi/viewcontent.cgi?article=1470&context=ijaaa>



Pilot Age Regulatory Environment

- A Tale of Two Worlds
 - Scheduled Air Transport (FAA Part 121 and Equivalents)
 - General Aviation (FAA Part 91/135 and Equivalents)
- Scheduled Air Transport Regulations
 - ICAO – Mandatory Retirement at Age 65
 - FAA – Mandatory Retirement at Age 65
 - UK / Australia / Many EU Authorities – Mandatory Retirement at Age 65
 - China CAA - Mandatory Retirement at Age 60
 - Japan CAA/B – Mandatory Retirement at Age 67/68
- General Aviation Regulations
 - FAA – Pilot Competency Managed by Medical Certification
 - Australia / Canada and other CAA's - Pilot Competency Managed by Medical Certification



FAA ATC Age Study

- Current Mandatory FAA ATC Retirement Age is 56
- A 1999 FAA Study of Age and Job Performance Found:
 - FAA ATC Specialist Performance Declines with Age
 - Performance Peaks in Mid-30's
 - Performance Significantly Declines Beyond Age 50
 - Performance Deterioration Linked to Cognitive Decline

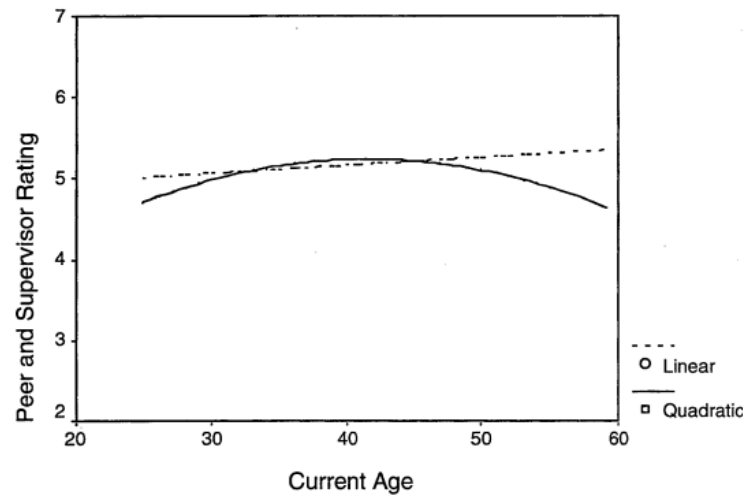


Figure 2. Regression of Current Age on Peer and Supervisor Ratings

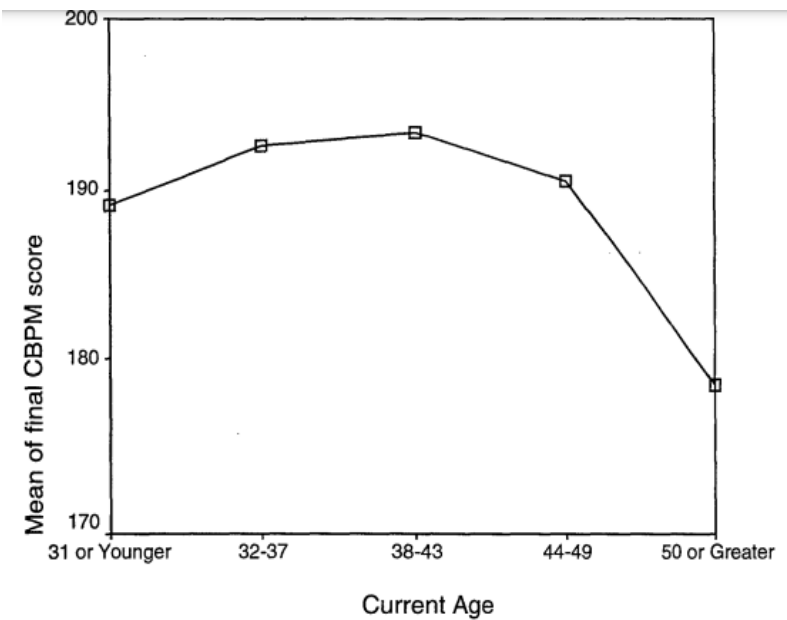


Figure 3. Mean CBPM Score for Current Age Group

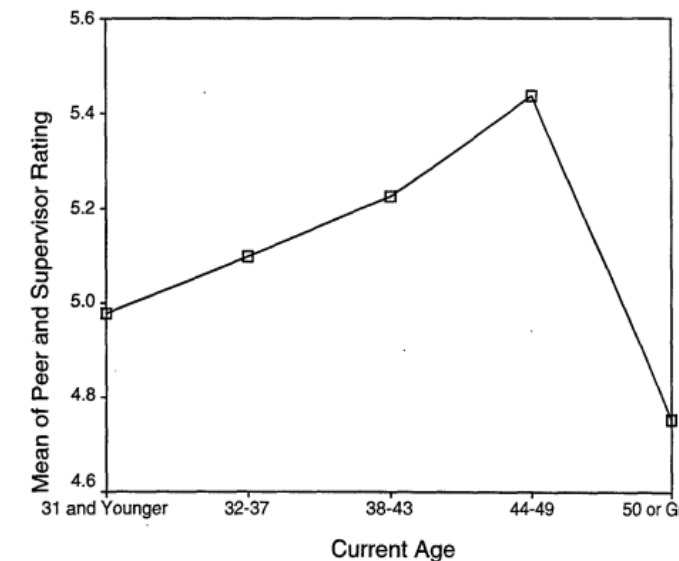


Figure 4. Mean Peer and Supervisor Ratings for Current Age Group



FAA Pilot Age Study

- Current Mandatory FAA Part 121 Retirement Age is 65
- A 2003 FAA Study of Pilot Age and Accident Frequency Found:
 - Accident Frequency is Higher in Youngest and Oldest Age Groups
 - Accident Rates Decrease Up to Age 49, Then Increase
 - Accident Frequency Increases Beyond Age 50
 - Study Confirms Previous Findings From Studies in
 - 1983
 - 1993
 - 1994

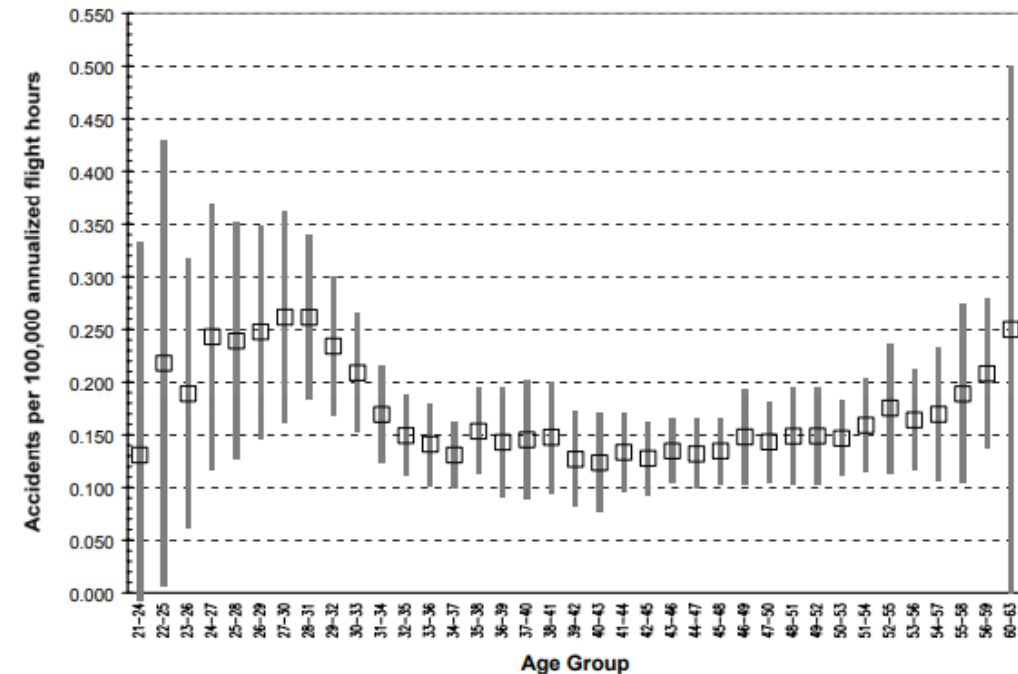


Figure 4: Plot of the mean accident rate and associated 5/95% confidence intervals for age 60-63 and overlapping 4-year age groups declining from age 59 for Part 121/135 accidents for professional pilots holding Class 1 medical and ATP certificates, 1988-1997.

Implications for Insurers

- Pilot Shortage Disrupts Industry and Could Cause Adverse Pilot Selection
- How Should Insurers Measure Risk?
- Inconsistent Approach Between Airline and GA Segments
- Increased Scrutiny for Single Pilot Risks
- Risk of Age Discrimination Suits



Summary

- Insurers Rely on Regulatory Guidance
- Insurers Perceive Increase in Risk as Pilots Age
- Lack of Usable Claims Data to Determine Impact of Age on Accident Frequency
- Impact Largely Limited to GA Space
- Potential Solutions:
 - Operator Investment in Training
 - Regulatory Reform
 - Improved Medical Evaluations and Transparency
 - Loss Data Aggregation





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