Welcome

HeliFutures
FAA Private Pilot Certificates Issued

1980  50,458 Issued

2016  17,082 Issued

66% = 1000 CERTIFICATES

Average age of pilot certificate holder is 50!
Boeing Pilot Outlook by Region

New Pilot Demand 2018-2037

- **Commercial**: 635,000
- **Business**: 96,000
- **Helicopter**: 59,000

**World Demand**: 790,000

- **206,000** North America
- **146,000** Europe
- **64,000** Middle East
- **29,000** Africa
- **27,000** Russia & Central Asia
- **261,000** Asia-Pacific

HELIICOPTER FOUNDATION INTERNATIONAL
Shortage of Helicopter Pilots in the US
### FAA Mechanics Certificates Issued

<table>
<thead>
<tr>
<th>Year</th>
<th>Number Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>11,640</td>
</tr>
<tr>
<td>2016</td>
<td>5,856</td>
</tr>
</tbody>
</table>

- **50%**

![HFI Logo](image)

*HFI - Helicopter Foundation International*
Boeing Technician Demand by Region

New Technician Demand 2018-2037

- **Commercial:** 622,000
- **Business:** 89,000
- **Helicopter:** 43,000

**World Demand:** 754,000

- **189,000** North America
- **132,000** Europe
- **27,000** Russia & C. Asia
- **66,000** Middle East
- **28,000** Africa
- **257,000** Asia – Pacific

**Latin America:** 55,000
Shortage of Mechanics in the US

-40,613
-13,010
-875

2023
2029
2036

HFI
HELICOPTER FOUNDATION INTERNATIONAL
- Surveyed 250 helicopter companies and operators

- 60% of operators report hiring mechanics with less experience than in previous years

- 67% of operators report more difficulty in hiring mechanics in 2017

- 64% of operators anticipate more difficulty in finding qualified pilots
Career Path Inaccessibility

- RAA member airline first year, First Officer average compensation rose more than 150 percent between 2014 and 2016.

- Overall recruiting success declined during the same period.

- Higher pay won’t resolve shortage until sufficient pilots can afford and access the career path.
International Market Growth

• International operators report similar trends:
  • 70% find it harder to hire mechanics
  • 75% have hired mechanics recently with less experience than previous years
  • Over 57% believe the inability to hire mechanics in the coming years will interfere with their growth and expansion plans

• China is poised for aggressive aviation expansion (Rand, 2017)
  • Currently has less than 1,000 helicopters
  • If growth occurs as planned, the use of ex pat maintenance technicians will be very likely, resulting in further labor supply issues in the United States and elsewhere
In the last year have you found it harder, the same or easier to hire pilots from the military?

- In the 80s, roughly 2/3 of airline pilots were ex-military.
- Recently, that percentage has dropped to less than 1/3.
- The Navy predicts a 10% pilot shortage in 2020 while the Air Force predicts its own 1,000-pilot shortage by 2022.

- Recruiting and training more new pilots
- Bringing back retired pilots
- Convincing experienced pilots to stay longer
- Improving quality of life
Attrition of Military Helicopter Pilots to Regional Airlines

• Reason this is occurring
  • Regional airlines need pilots
  • Eligible for a R-ATP (military) at 750 total hours

• Program logistics
  • Airlines offer financial incentive ($20,000+) to obtain fixed-wing ratings
  • Partnered with flight academies throughout the US

• Surveyed three regional carriers
  • Approximately 500 hired in 2017 and transitioning to fixed wing R-ATP
  • 95% completion rate
Your Career in Commercial Aviation Begins At PSA.

NOW OFFERING
A Maintenance Military Transition Program

- Industry-leading first-year pay
- $2,500 sign on bonus
- Up to $7,500 experience bonus
- $2,500 relocation package available at select bases
- Comprehensive paid training (all fleet types for A&P mechanics)
- Work on brand new Bombardier CRJ900 Next Generation, CRJ700 and CRJ200 aircraft in updated facilities
- Base transfer opportunity after six months

Rotor to Airline Transition

BECOME A COMMERCIAL PILOT

We realize the unique skill set and flight leadership that you as a military pilot bring. Let us help you transition.

YOU DESERVE THE PSA DIFFERENCE
- $23,000 to help with your transition
- $55,000 first-year pay
- Over $16,000 in sign-on bonuses
- $20,000 retention bonus after one year
- Quick upgrade to captain and little to no reserve time
- Guaranteed flow through to American Airlines

www.psaairlines.com
Currently not accessing the full diversity of America

- Female pilots represent only 6% of the total pilot population
- Female mechanics represent only 2% of the total mechanic population

Source: FAA's Aeronautical Center (December 31st, 2017 data)
Understanding Millennials

World Population by Generation
Worldwide and in the US, Millennials are the largest generation yet - some 23 billion strong (US Census Bureau).

- Builders
- Boomers
- Gen X
- Millennials
- Next Gen

2015 2020 2025 2030 2040

Filling Boomer’s Shoes
Even though many Baby Boomers have delayed retirement, many are beginning to leave the workforce and are taking their knowledge and expertise with them – leaving a gap that can only be filled by Millennials.

2015 2025 2030

1. Consider what millennials report as top priorities when considering an employer.

- #1 Pay (63%)
- #2 Culture (52%)
- #3 Flexibility (50%)

2. Good pay and positive cultures attract millennials and Gen Z, but diversity/inclusion and flexibility are important keys to keeping them happy.

- Percentage of millennials saying they will stay beyond five years: 69%
- Not a diverse organization 27%

55% of millennials who say their organizations are more flexible compared to three years ago plan to stay at least five years. Where they see less flexibility, only 17 percent plan to stay long-term.
Understanding Generation Z

- Generally defined as those aged 3 – 18.
- Generation Z is the most materially endowed, technologically saturated, formally educated generation our world has ever seen.

**KEY CHARACTERISTICS**

- **Globally Aware:** Celebrities, fashions, foods, online entertainment, nothing escapes Generation Next.
- **Digital Natives:** Grows on iPads, Facebook, Smartphones, YouTube, etc.
- **Speed Demons:** Lives for speed and in a world of instant gratification.
- **Entertainment Addicts:** Seek out captivating campaigns and entertainment.
- **Collaborative Partners:** Want their voice to be heard and be involved in your brand through user-generated/collaborative campaigns.
- **Micro Miners:** Every information has to be broken into bite-size, manageable pieces.

Sources: McCrindle Research, Sparxoo and GROUP MAD.
Legislative Action

- U.S. civilian general aviation sector
  - Generates more than one million jobs
  - More than $200 billion for the nation’s economy
- Studies show need for more pilots and mechanics
- Congress recognizes problem, taking action
Workforce Education in FAA Reauthorization Bill

- Workforce study on current and future supply
  - Barriers, ID methods to increase supply
- Modernize Part 147 training programs
  - FAA to modernize training programs at aviation maintenance technician schools
- Aviation workforce development program
  - Grants to support pilot and mechanic education
- FAA to report on existing outreach efforts to mitigate pilot shortage
- Youth Access to American Jobs in Aviation Task Force
  - ID and develop pathways for students
Forces to Flyers Initiative – DOT pilot program

• Announced November 2017
• 3 year program
  – Study pathways for entering the pilot workforce
  – Identify barriers to pilot training and employment
  – Provide flight training to veterans interested in becoming airline pilots
    ▪ Beginner courses up to Certified Flight Instructor-Instrument
• May 2018 DOT contracted with 4 flight schools
  – Training for up to 40 students
  – Interested veterans contact schools
Transition Improvement Act of 2018

  - Aimed at improving the transition process for vets
  - Language from H.R. 4149 added as amendment – Section 201
  - GA associations long opposed and blocked H.R. 4149
- Caps payments for flight training programs
  - Other degree programs at public colleges or universities not capped
  - Unfairly impacts the ability of veterans to pursue well-paying jobs in the civilian aviation sector
Day 1
<table>
<thead>
<tr>
<th>Challenges Identified By Industry Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Qualified Pilot shortages</td>
</tr>
<tr>
<td>• Qualified Mechanic shortages</td>
</tr>
<tr>
<td>• Affordability and accessibility of Aviation education</td>
</tr>
<tr>
<td>• Helicopter curricula not included in post-secondary education</td>
</tr>
<tr>
<td>• Attracting young people into the Aviation Industry</td>
</tr>
<tr>
<td>• Maintaining Workers</td>
</tr>
<tr>
<td>• Competitive pay, benefits, quality of life</td>
</tr>
<tr>
<td>• Emerging markets and technology impact on workforce</td>
</tr>
</tbody>
</table>
Ranked “Up at Night” Workforce Challenges Group Identified

**One**
- Lack of pilots & AMTs

**Two**
- Retention Issues – Competitive Pay & Benefits

**Three**
- Affordability & Accessibility of Education
Day 2
Possible Solutions Identified By Industry Research

- Accessible Web portal with shareable promotional content on Industry Career Pathways to utilize with curriculum boards to promote STEM/UAS curricula.
- Engage an Industry Supply Chain Coalition to Advance Careers (Suppliers, Manufacturers, and End Users) on key Advocacy initiatives.
- Establish formal career pathway relationship with DOD.
- Targeted Social Media Campaign to engage Generation Z.
Top Three New Workforce Solutions to Support Industry Business Outcomes

Three
- Apprenticeship Programs

One
- Workforce Industry Promotion

Two
- Enhance Non-Salary Benefits

SOLUTION 1

SOLUTION 2

SOLUTION 3
Solution #1

Workforce Industry Promotion

Critical Audiences to support solution:

Internal -
• Members, Operators, & Manufacturers
• Industry Trade Associations: ATEC, GAMA, Women In Aviation, AOPA, EAA, AAMS, FSAA, HAI, AIAA, PHPA, Whirly Girls, Veterans Associations including Fleet Reserves and other related organizations, CHPA, NHA, Helmets to Hardhats, NBWA, Aviation Insurance Association, CAMTS, ARSA, Social Media Aviation Groups, & NATA.
• Aviation Magazines

External -
• Suppliers & Customers
• Students: High School, Middle School, & Elementary Schools, Youth Groups, Civil Air Patrol, Boy Scouts, Girl Scouts, Indiana Guides, Y Guides, Big Brothers & Sisters, Boys & Girls Clubs
• School Teacher Association, Teacher’s Unions, Stem & Steam, NCASE, & OBAP, Home School Association

Influencers to Move the Needle for the Industry -
• Parent Teacher Associations, Federal & State Legislators, local and state school boards, WCSL, Retired Generals, Ex Military Officers and Leaders, Helicopter Pilots, Marines for Life, & TAPS
• **Conducts an ongoing Marketing Campaign:**
  Conduct Industry Research (Association Research & Outside Research) to:
  - Define the economic footprint & impact of the Industry:
    - Wage Rates: Pilots & AMT’s
    - How Worker shortfall impacts the Industry and local economies
    - Obtain Industry buy in on the data
  - Position the Industry Marketing campaign and include:
    - Hard hitting messages to promote the Industry and careers
    - Identify the appropriate vehicles to drive messaging into important channels
    - Determine which tactics that would achieve the greatest outcome for the Industry based on available resources (example: YouTube)
Solution #2
Enhance Non-Salary Benefits

Critical Audiences to support solution:

Internal -
• Employers
• Operators
• Repair Stations
• HAI Members
• Professional Helicopter Pilots Association

External -
• Airlines
• Other Industries with similar challenges i.e. Trucking Industry
• Health Insurers
• Health Insurance Brokers
• 401 K Providers
• Discount product providers
• Customers, Suppliers, & OEM's

Influencers to Move the Needle for the Industry -
• C Suite (CEO's, CFO's, COO's etc.) of Supplier and OEM companies
• Human Resource Officers of Supplier and OEM companies
• **Conduct Industry research:**
  - Identify what Companies and other Industries are in place for student loan repayments.
  - HAI will host the following on its website:
    - Student loan repayment template citing examples
    - Case studies of what other companies and Industries have done successfully.
Action - Member Benefits Survey

- Conduct survey research among Supplier and OEM companies, C Suite & Human Resource Officers of Supplier and OEM companies:
  - Industry trends to be identified:
    - Are companies seeking to expand benefits packages to remain competitive in the marketplace with other Industries?
    - Are companies constrained in terms of what non salary benefits that they can offer?
Critical Audiences to support solution:

Internal -
- Members, Operators, & Manufacturers
- Industry Trade Associations: ATEC, GAMA, Women In Aviation, AOPA, EAA, AAMS, FSAA, HAI, AIAA, PHPA, Whirly Girls, Veterans Associations including Fleet Reserves and other related organizations, CHPA, NHA, Helmets to Hardhats, NBWA, Aviation Insurance Association, CAMTS, ARSA, Social Media Aviation Groups, & NATA
- Aviation Magazines

External -
- 147 Schools
- Flight Schools
- Department of Labor
- Customers & Suppliers
- Unions
- Community College Associations
- Other Industries who have done this

Influencers to Move the Needle for the Industry-
- Parent Teacher Associations, Federal & State Legislatures, local and state school boards, WCSSL, Retired Generals, Ex Military Officers and Leaders, Helicopter Pilots, Marines for Life, & TAPS
- Other CEO's, Employees
- Cities where the Industry operates
- Economic Develop Authority’s (Economic Impact Data reflecting impact of the Industry)
- Major TV Personality (Mike Rowe has available funding, possible $4-5 million)
Research and define the potential scope and reach of an Industry Apprenticeship program. Utilize the information to:

- Determine if there is C suite support for an Apprenticeship program
- Help define if an Apprenticeship Program would add business value to the Industry
- Define how an apprenticeship program can be meaningful to workers and companies
- Potentially deliver the Apprenticeship Program through an Industry Not for Profit entity. Such an organization could:
  - Design Apprenticeship Templates for Mission Specific Training Programs
  - Market & Stand up the Apprenticeship program
- HAI include sample and model apprenticeship templates on its website