Analysis of Pilot and Technician Turnover & Some Words about Pilot Compensation

Tuesday, October 16th, 1030 - 1200

Christopher M. Broyhill, Ph.D., CAM, COO Vipping, Ltd.
Overview

• Analyst Credentials
• Purpose of the study
• Demographics
• Pilot Turnover Analysis
• Technician Turnover Analysis
• Conclusions
• Some Words About Pilot Compensation
Analyst Credentials

Christopher M. Broyhill, Ph.D., CAM

- Retired USAF Fighter Pilot, A-10 & F-16 – Fighter Weapons School Graduate
- BS, Computer Science, USAF Academy
- MA, National Security Studies, California State University
- Ph.D., Aviation, Embry-Riddle Aeronautical University
- Chief Pilot and Director of Operations under 14 CFR Part 135
- Chief Pilot and Director of Aviation for two Fortune 100 Companies under 14 CFR Part 91
- Have conducted multiple personnel retention and compensation studies (10+)
- Unintentional statistician and retention/compensation geek
- BAMC Member
Purpose for the Study

Last Year: Pilot Workforce Retention Exploratory Study

- A qualitative analysis of 1157 pilot respondents
- Conclusions:
  - Pilots considering transition to the airlines (Pro-Airlines) and pilots not considering transition to the airlines (Anti-Airlines) were statistically different groups
  - Pro-Airlines pilots were younger, had less tenure with their companies and were lower in the department hierarchy than Anti-Airlines pilots
  - Pro-Airlines Pilots were leaving business aviation because they wanted:
    1. More predictable schedule
    2. More Compensation
    3. Better Retirement Benefits
    4. More job stability

Source: Pilot Workforce Exploratory Study, BACE 2017
Purpose for the Study - 2

This Year – Quantitative Data Needed

• Last year told us “why” pilots were leaving but left many questions unanswered
  • How severe is the pilot turnover issue in business aviation?
    • How many pilots are leaving the business aviation industry?
    • How many pilots are going to other business aviation operators/entities??
  • Is the technician turnover as significant an issue as pilot turnover?
    • Where are technicians going when they leave their jobs in business aviation?
    • How many technicians are leaving the aviation industry?
Study Methodology

Survey Instrument Construction and Dissemination

• 18-question survey targeting aviation managers as respondents
• Data collection conducted from April – June of this year
• 3,450 survey links sent out
• 510 responses received - 15 % response rate
• Two demographic questions:
  1. What type of operation do you manage?
  2. How many aircraft are in your operation?
Study Methodology - 2

Survey Instrument Construction and Dissemination

- 8 questions regarding pilots
  1. How many pilots do you have on staff?
  2. How many pilot positions are authorized for your organization?
  3. Since Jan 2015, how many pilots have left your operation to seek employment elsewhere?
  4. Thinking of the pilots who departed, how many left for each of the following destinations?
     a) Airlines
     b) Another corporate operator
     c) A management company
     d) Charter operator
     e) Fractional provider
     f) Training center
     g) OEM
     h) Other
Study Methodology - 3

Survey Instrument Construction and Dissemination

- 8 questions regarding pilots (continued)

5. Thinking of the pilots who departed, rate the how often you heard the following reasons your pilots gave for leaving your organization for employment elsewhere (Likert scale 1 – 5)

a) Wanted better schedule
b) Wanted better compensation
c) Wanted better retirement benefits
d) Wanted to improve job stability
e) Wanted better career advancement
f) Thought workplace was too political
g) Didn’t like performing ancillary duties
h) Other
Study Methodology - 4

Survey Instrument Construction and Dissemination

- 8 questions regarding pilots (continued)

6. In my opinion, it has been more difficult for my organization to retain pilots since the beginning of 2015 than it was before 2015. (Likert Scale 1 – 5)

7. Thinking of the hiring process to replace the pilots who departed, in general, there have been a smaller number of qualified candidates to consider for my open pilot positions since the beginning of 2015 compared to prior to 2015. (Likert Scale 1 – 5)

8. Please provide comments to clarify or expand any of the answers above or to explain how you/your organization has dealt with the issues of pilot retention.
Study Methodology - 5

Survey Instrument Construction and Dissemination

- 8 questions regarding technicians
  1. How many technicians do you have on staff?
  2. How many technician positions are authorized for your organization?
  3. Since Jan 2015, how many technicians have left your operation to seek employment elsewhere?
  4. Thinking of the technicians who departed, how many left for each of the following destinations?
     a) Airlines
     b) Another corporate operator
     c) A management company
     d) Charter operator
     e) Fractional provider
     f) Training center
     g) OEM
     h) Other
Study Methodology - 6

Survey Instrument Construction and Dissemination

- 8 questions regarding technicians (continued)

5. Thinking of the technicians who departed, rate the how often you heard the following reasons your technicians gave for leaving your organization for employment elsewhere (Likert scale 1 – 5)
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   c) Wanted better retirement benefits
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   f) Thought workplace was too political
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8. Please provide comments to clarify or expand any of the answers above or to explain how you/your organization has dealt with the issues of pilot retention.
Data Breakdown and Preparation

Respondent Analysis and Selection

• 510 total respondents
• 405 respondents provided usable / complete data
• 401 organizations employing 4,330 full-time pilots
• 271 organizations employing 1,200 full-time technicians

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Pilot Force Observations

Demographics – 401 Operators with 1,781 Aircraft

30% of Operators were Fortune 500 Companies
Pilot Force Observations - 2

Demographics – 4,330 Pilots for 4,379 Openings (98.88%)

29.45% of Pilots work for Fortune 500 Companies
Pilot Force Observations - 3
Personnel Turnover Since 2015

254/401 Operators Lost Pilots

1258/4330 Pilots Changed Jobs

63% of Operators Lost Pilots – 29% of Pilots Changed Jobs
Pilot Force Observations - 4

Average Losses per Operator Type

<table>
<thead>
<tr>
<th>Operator Type</th>
<th>Average Losses</th>
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</thead>
<tbody>
<tr>
<td>Corporate Operators</td>
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<tr>
<td>Charter Operators</td>
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<td>Management Companies</td>
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<td>Other (Incl Fractional)</td>
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Pilot Force Observations - 5

Pilot Destinations After Leaving Employment

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
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<td>Left Industry</td>
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<td>Other</td>
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<tr>
<td>OEM</td>
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<td>Training...</td>
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<tr>
<td>Fractional</td>
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<td>Mgt...</td>
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<td>Charter</td>
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<td>Corporate</td>
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<td>Airlines</td>
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</table>
Pilot Force Observations - 6

Pilot Destinations After Leaving Employment

- Left Industry
- Other
- OEM
- Training
- Fractional Mgt...
- Charter
- Corporate
- Airlines

Corporate Operators
Charter Operators
Management Companies
Other

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Pilot Force Observations - 7

Pilot Reasons for Departure - Overall

Compensation has replaced Schedule as the Primary Reason for Departures

1 = Never
2 = Rarely
3 = Occasionally
4 = Frequently
5 = Always
Pilot Force Observations - 8

Pilot Reasons for Departure by Operator Type

<table>
<thead>
<tr>
<th>Factor</th>
<th>Management Companies</th>
<th>Charter Operators</th>
<th>Corporate Operators</th>
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<tbody>
<tr>
<td>Ancillary Duties</td>
<td></td>
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<tr>
<td>Workplace Culture</td>
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<tr>
<td>Career Advancement</td>
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<td></td>
<td></td>
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<tr>
<td>Job Stability</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Benefits</td>
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<td></td>
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<tr>
<td>Compensation</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Schedule</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = Never
2 = Rarely
3 = Occasionally
4 = Frequently
5 = Always
Pilot Force Observations - 9
The Pilot Retention and Hiring Environment Since 2015

More Difficult to Retain Pilots

Fewer Qualified Candidates Available for Replacement

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree
Manager Comments on Pilot Retention Issues

- “Increased Pay twice in the last year. Significant changes in health and 401K.”
- “We can hire pilots at 500 hours, but we struggle to retain those pilots until they become captains (1500 hours) and beyond. We seem to be training pilots for the airlines or other corporate jobs.”
- “Owner stepped up and no one is leaving now.”
- “We have offered significant pay raises over the last 9 months and all pilots are on an 8 ON 6 OFF schedule (with rare opportunities for OT).”
- “To retain our pilots and attract new pilots we have increased our compensation package and also implemented a more favorable flying schedule.”
- “We are offering signing bonuses, annual bonuses and substantially increasing pay for our pilots.”
Pilot Force Observations - 11

Manager Comments on Pilot Retention Issues

- “Quality of life, a little more predictable schedule or at least known off time where they are not on call, better compensation.”
- “To retain, we have come up with a comp day schedule to ensure pilots are compensated for weekend/holiday work with hard days off. Increased pay and also increased number of senior captain positions, thereby enabling us to have more higher paying positions.”
- “Quality of life”/ compensation is our best chance for retention of pilots.”
- “We have raised compensation approximately 15% in the past year. We are looking at raising compensation again in order to remain competitive.”
- “We have tried retention bonuses, salary increases, and promotions. None of this outweighs the opportunities that airline can offer.”
Manager Comments on Pilot Hiring

- “There has been a shortage of good corporate pilots for several years before 2015. The airlines paying more money and better benefits has forced real/flight department corporate operators to step up the game. We still have many little jet operators in ______ that refuse to hire pilots or use qualified contract pilots because they will not pay average wages.”

- “Quality of candidates has decreased. Overall technical knowledge is below average.”

- “It is difficult to find qualified pilots that have been adequately trained in SOP’s, CRM and are self motivated to do their very best at all times. “

- “When we had an open pilot position prior to 2015 we would get 300 plus qualified resumes. Today we might get 75 resumes and if lucky 25 percent maybe qualified. Of the 25 percent qualified pilot applicants there is very little to no diversity. We have raised salaries to close the gap with majors which has helped. We see younger pilot families leveraging the airlines not just for the dollars but for opportunities to raise their families in parts of the country they have only dreamt about. Willing to give up a great corporate flying job put up with airline environment to rise their child where they want to.”
Technician Force Observations

Demographics – 271 Operators with 1,378 Aircraft

- 226 Corporate Operators
- 17 Charter Operators
- 8 Management Companies
- 20 Other (incl Fractional)

43% of Operators were Fortune 500 Companies
Technician Force Observations - 2

Demographics – 1,200 Technicians for 1,188 Openings (101.01%)

43.67% of Technicians work for Fortune 500 Companies
Technician Force Observations - 3

Personnel Turnover Since 2015

90/271 Operators Lost Technicians

269/1200 Technicians Changed Jobs

- 33% of Operators Lost Technicians – 22.4% of Technicians Changed Jobs
Technician Force Observations - 4

Average Losses per Operator Type

- Corporate Operators: 1.57
- Charter Operators: 6.75
- Management Companies: 6.10
- Other (Incl Fractional): 5.60
Technician Force Observations - 5

Technician Destinations After Leaving Employment

- Left Industry: 14
- Other: 32
- OEMs & MROs: 30
- Training: 2
- Fractional: 5
- Mgt.: 37
- Charter: 38
- Corporate: 88
- Airlines: 23
Technician Force Observations - 6

Technician Destinations After Leaving Employment
## Technician Force Observations - 7

### Technician Reasons for Departure - Overall

<table>
<thead>
<tr>
<th>Reason</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancillary Duties</td>
<td>2.13</td>
</tr>
<tr>
<td>Workplace Culture</td>
<td>2.29</td>
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<tr>
<td>Career Advancement</td>
<td>2.86</td>
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<tr>
<td>Job Stability</td>
<td>2.64</td>
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<td>Benefits</td>
<td>2.9</td>
</tr>
<tr>
<td>Compensation</td>
<td>3.43</td>
</tr>
<tr>
<td>Schedule</td>
<td>2.67</td>
</tr>
</tbody>
</table>

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2 = Rarely  
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Compensation is the Most Frequently Heard Reason for Departures
Technician Force Observations - 8

Technician Reasons for Departure by Operator Type

Ancillary Duties
Workplace Culture
Career Advancement
Job Stability
Benefits
Compensation
Schedule

1 = Never
2 = Rarely
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Other
Management Companies
Charter Operators
Corporate Operators
Technician Force Observations - 9

The Technician Retention and Hiring Environment Since 2015

More Difficult to Retain Technicians
Fewer Qualified Candidates Available for Replacement

1 = Strongly Disagree
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4 = Agree
5 = Strongly Agree
Manager Comments on Technician Retention Issues

• “Similar to the situation with pilots, we have seen more difficulty retaining and hiring quality maintenance technicians. We have also raised mechanic salaries to try to be more competitive for the best candidates, and retain our current staff.”

• “We had one mechanic leave due to bad management.”

• “You can't treat people poorly and expect them to stay in our current environment. There are other options…”

• “The technician issue is not yet at the level the pilot issue is (from my experience). However, I have always focused on paying them well because they have an even less firm schedule and are more of an on-demand employee than the pilots.”

• “Our technician left due to being required to work weekends and possible faster career advancement opportunities (younger and a newlywed).”
Manager Comments on Technician Retention Issues

- “Had a technician leave in early 2017 who was seeking more career advancement potential with a larger organization.”

- “The individual that left our organization was frustrated by his relationship with "downtown". He felt he was not valued. CFO felt he should have focused on "Maintenance of aircraft and not try to be involved in other aspects of the business." Poor fit for the individual.”

- “The technician that left, went to charter outfit then ended up leaving the field altogether.”
Technician Force Observations - 12

Manager Comments on Technician Hiring

• “Good qualified candidates are hard to find. Experience is lacking with new individuals in the industry and overall desire to work.”

• “The experience level has decreased steadily over the past 5 years with little or now backfill of experienced A&P's. Plenty of new A&P's however decreased experience.”

• “Overall experience level has decreased.”

• “There was not nearly the same talent pool as had been in previous years when looking to rehire, but luckily due to our stable organization and schedule was able to secure a replacement in addition to a new hire.”
Perhaps the Most Novel Retention Suggestion:

- “Feed Spicy Chicken sandwiches regularly. Provide bourbon spigot in hangar.”
Conclusions

The Workforce in Our Industry is Experiencing Substantial Turnover

• 63% of operators with pilot staff experienced pilot turnover since 2015
  • 29% of the pilot force has changed jobs
  • At least 13.2% of the pilot force has left the business aviation industry
• 33% of operators with technician staff experienced technician turnover since 2015
  • 22.4% of the technician force has changed jobs
  • Only 3% have left the business aviation industry
Conclusions - 2

The Destinations for Departing Personnel are Knowns

• Pilots
  1. Airlines (43%)
  2. Corporate Operators (32%)
  3. Charter Operators (11%)
  4. Management Companies (5%)

• Technicians
  1. Corporate Operators (33%)
  2. Charter Operators (14%)
  3. Management Companies (14%)
  4. Other (12%)

43% of Pilot Departures Remove Personnel from our Industry

Most Technician Departures Involve Movement within our Industry
Conclusions - 3

The Reasons for Turnover Are Not New

• Pilots
  1. Better Compensation
  2. Better Schedule
  3. Better Benefits
  4. Better Career Advancement

• Technicians
  1. Better Compensation
  2. Better Benefits
  3. Better Career Advancement
  4. Better Schedule
Conclusions - 4

The Retention and Hiring Environment has Changed Since 2015

- Retention is more difficult for both Pilots and Technicians
- Qualified Pilot and Technician candidates are more difficult to find
And Now A Few Words About Pilot Compensation
(Or Why $300,000 in Compensation is a bit overstated…)

Sources: enter sources here
Pilot Compensation
How Much Comp is Really Necessary to Keep Pilots from Leaving for the Airlines?

“…owners, who are spending millions on high-end equipment, come to firms such as Jet Aviation wanting the best-qualified pilots. But, Haloburdo noted, those pilots all have jobs. This puts the management firm in the position of recruiting pilots who are already employed. A pilot might earn a salary of between $245,000 and $265,000 to fly a Gulfstream G650 or Bombardier Global 6000. To get them on board with a new client, the salary may need to go up to $300,000.”

– Business Jet Traveler, November 2017
Pilot Compensation Example 1

Company A Pilot at Low Comp Level vs Airline D

- Cash Parity Regained by Year 3
- Comp Parity Regained by Year 2

Company A Comp numbers assume a 3% annual raise
Airline D Comp numbers come from current contract and assume typical progression
Pilot Compensation Example 2

Company A Pilot at Low - Mid Comp Level vs Airline D

Comp Parity Regained by Year 3
Cash Parity Regained by Year 7

Years of Service

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Yearly Total Cash Compensation

Company X Comp  Airline Y Comp

Company A Comp numbers assume a 3% annual raise
Airline D Comp numbers come from current contract and assume typical progression

Sources: enter sources here
Pilot Compensation Example 3

Company A Pilot at Mid Comp Level vs Airline D

Company A Comp numbers assume a 3% annual raise
Airline D Comp numbers come from current contract and assume typical progression

Sources: enter sources here
Pilot Compensation Example 4

Company A Pilot at Mid - High Comp Level vs Airline D

Yearly Total Cash Compensation

- Company X Comp
- Airline Y Comp

Comp Parity Regained by Year 7
Cash Parity Regained by Year 9

Company A Comp numbers assume a 3% annual raise
Airline D Comp numbers come from current contract and assume typical progression
Pilot Compensation Example 5

Company A Pilot at High Comp Level vs Airline D

Yearly Total Cash Compensation

Years of Service

Company A Comp numbers assume a 3% annual raise
Airline D Comp numbers come from current contract and assume typical progression

Company X Comp
Airline Y Comp

Cash Parity Never Regained
Comp Parity Regained by Year 7

Sources: enter sources here
Pilot Compensation

How Much Comp is **Really** Necessary to Keep Pilots from Leaving for the Airlines?

- **For Managers:**
  - Ultra-high com are not required to mitigate transition to the airlines
  - Compensation need only be increased to the point it makes transition uncertain or “painful”
  - Increases in comp may be as little 10-15% to achieve the objective
  - Total comp increase range from lowest to highest in these examples was about half the cost of rehiring and typing a heavy jet pilot

- **For Pilots:**
  - If you’re considering transition to the airlines, the deal might not be as good as you think
  - Make sure you do ALL the math