



U.S. Department of  
Transportation

The Inspector General

Office of Inspector General  
Washington, D.C. 20590

March 2, 2017

The Honorable Peter A. DeFazio  
Ranking Member  
Committee on Transportation and Infrastructure  
United States House of Representatives  
Washington, DC 20515

The Honorable Rick Larsen  
Ranking Member  
Subcommittee on Aviation  
Committee on Transportation and Infrastructure  
United States House of Representatives  
Washington, DC 20515

Dear Ranking Member DeFazio and Ranking Member Larsen:

You requested that we examine the effectiveness of the Federal Aviation Administration's (FAA) oversight of regional airlines and pilot pay. Specifically, you requested that we assess the effectiveness of FAA's role in overseeing regional airline safety and determine whether the Agency is effectively positioned to quickly respond to transition and growth in the regional airline sector. In addition, you requested that we examine the extent to which pilot pay rates have affected the regional sector's ability to attract and retain qualified professional pilots, as well as determine the extent to which FAA is able to detect labor conditions that could adversely affect safety. We will report on FAA's oversight of regional airlines later this year.

In response to your request and as agreed with your office, we reviewed pilot pay, retention, recruitment, and experience at regional carriers.<sup>1</sup> As part of this review, we analyzed a sample of pilot pay records at six regional carriers.<sup>2</sup> Furthermore, we discussed pilot pay with six regional carriers to identify efforts to attract and retain pilots. Finally, we reviewed the impact of new regulations affecting pilots, including

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<sup>1</sup> We limited our universe to the 15 regional air carriers that carried more than 1 million passengers in calendar year 2014. These 15 carriers carried about 97 percent of all the passengers who flew on regional airlines in 2014. Any reference to regional carriers in this letter refers to these large regional carriers with code-share agreements with mainline carriers. We did not review the smaller regional carriers, which may have different issues and policies with pilot pay.

<sup>2</sup> We selected six carriers for our pilot pay analysis based on criteria such as growth rates, significant transition, known labor relations issues, and share of the regional airline industry.

the 1,500-hour rule<sup>3</sup> and the status of current labor agreements. We conducted our work in accordance with generally accepted Government auditing standards.

The attachment to this letter details our objective, scope, and methodology in completing this review. The results of our analysis of pilot compensation and labor conditions at regional airlines are discussed below.

### **Regional Airlines Are Increasing Pay To Attract Pilots**

Regional airlines operate in a very competitive environment, which often hinders their ability to adjust pilot compensation. Basic business models of regional carriers require them to keep costs low to remain competitive. These airlines usually operate under long-term, fixed-fee-capacity purchase agreements with their larger, domestic code-share partners, such as American Airlines, Delta Air Lines, and United Airlines. Under the agreements, mainline carriers pay regional carriers a fixed fee for each departure. These arrangements can be beneficial to regionals because they are sheltered from some business risks, such as fluctuations in fuel prices, ticket prices, and passengers. However, it also means that they do not generally benefit from upward trends in ticket prices (since mainline carriers retain ticket revenue), ancillary revenue (e.g., baggage fees or selective seating fees), and passenger enplanements. Since regionals do not have the ability to charge or increase these fees to drive revenue, they often must focus on cost control as a way to become or stay profitable. As a result, they have found it difficult in many cases to increase pilot pay despite improved profitability at the mainline carriers.

Regional airlines must meet the same safety standards as mainline carriers under Part 121 regulations.<sup>4</sup> Pilot pay received significant attention following the fatal New York crash of Colgan flight 3407 in February 2009, when the National Transportation Safety Board reported that the first officer (i.e., the aircraft's second in command) stated her pay had been \$15,800 the previous year. FAA does not have regulatory authority over pilot compensation. Therefore, the Agency has no oversight role or standards for pilot pay. Pay rates at each carrier are negotiated by the carrier and its labor organization, and vary by seniority of the pilot and the size and type of the aircraft they operate.

We reviewed a sample<sup>5</sup> of calendar year 2015 pilot pay for six regional airlines (representing five regional airline companies).<sup>6</sup> We determined that the average first

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<sup>3</sup> In response to changes to pilot experience and training requirements that were mandated in 2010, FAA issued a rule in 2013 requiring each commercial airline pilot to obtain an Airline Transport Pilot license, which requires 1,500 hours of flight experience.

<sup>4</sup> Title 14 Code of Federal Regulations Part 121-Operating Requirements: Domestic, Flag, and Supplemental Operations.

<sup>5</sup> We reviewed a random sample of individual pilot pay records for six carriers. We included base pay plus any incentives. Some incentive payments are not negotiated with labor, or included in the carriers' collective bargaining agreements, and may be eliminated at the carriers' discretion. Because we looked at the data for all of 2015, the salary numbers presented will only partially reflect pay changes that began to occur in the industry in mid-2015.

officer pay for 2015 was about \$44,000. First officer pay in our sample ranged from as low as about \$20,000 to almost \$105,000 annually. The average annual captain pay was about \$105,000. Captain pay in our sample ranged from as low as about \$49,000 to almost \$183,000 annually. The average tenure of a first officer at the airlines was 3.7 years, while the average tenure of a captain was 12.7 years. Table 1 illustrates our analysis of pilot pay data.

**Table 1. Analysis of 2015 Pilot Compensation and Experience at Regional Airlines**

<b>First Officer</b>					
<b>Regional Carrier</b>	<b># Pilots in Sample</b>	<b>Low 2015 Pay</b>	<b>High 2015 Pay</b>	<b>Average 2015 Pay</b>	<b>Average Years with Airline</b>
<i>Regional #1</i>	54	\$27,403	\$104,892 <sup>7</sup>	\$46,421	2.8
<i>Regional #2</i>	52	\$22,654	\$ 56,646	\$29,083	1.8
<i>Regional #3</i>	63	\$21,892	\$ 80,452	\$49,354	4.7
<i>Regional #4</i>	23	\$22,723	\$ 46,582	\$34,610	2.3
<i>Regional #5</i>	44	\$20,026	\$ 37,942	\$29,506	1.6
Average <sup>8</sup>	-	\$22,768	\$ 77,271	\$44,260 <sup>9</sup>	3.7
<b>Captain</b>					
<b>Regional Carrier</b>	<b># Pilots in Sample</b>	<b>Low 2015 Pay</b>	<b>High 2015 Pay</b>	<b>Average 2015 Pay</b>	<b>Average Years with Airline</b>
<i>Regional #1</i>	55	\$87,729	\$182,701	\$108,634	12.9
<i>Regional #2</i>	57	\$66,685	\$138,869	\$ 94,622	15.0
<i>Regional #3</i>	67	\$57,202	\$172,332	\$109,997	12.9
<i>Regional #4</i>	34	\$49,054	\$102,860	\$ 71,441	8.0
<i>Regional #5</i>	53	\$55,832	\$107,348	\$ 79,337	8.7
Average	-	\$61,062	\$162,488	\$104,621 <sup>10</sup>	12.7

Source: OIG sample of airline pay and incentive data.

Further, we reviewed the distribution of 2015 pilot pay among first officers and captains. We found that 83 percent of first officers in our sample made between \$20,000 and \$50,000 annually, and about 60 percent of captains in our sample made

<sup>6</sup> Two of the carriers that we selected are subsidiaries of a larger holding company. Pilots can switch between the two carriers at specified times. As a result, our pay analysis for those two carriers is presented as one carrier.

<sup>7</sup> This first officer's compensation is an outlier in our sample and includes significant incentive pay.

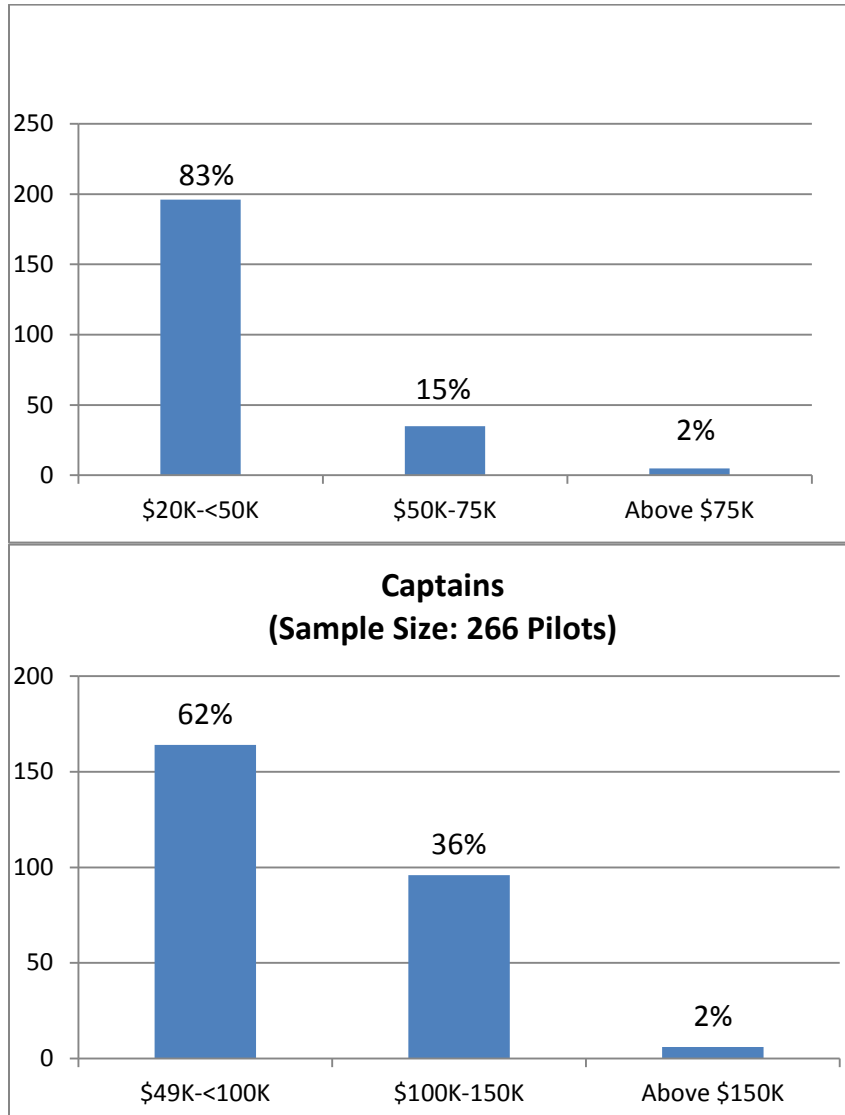
<sup>8</sup> Averages were weighted by each sampled regional carrier's pilot population proportion of the total pilot population sampled (first officers or captains).

<sup>9</sup> Our estimate of \$44,260 has 90-percent confidence limits ranging from \$42,755 to \$45,764.

<sup>10</sup> Our estimate of \$104,621 has 90-percent confidence limits ranging from \$101,037 to \$108,204

between \$49,000 and \$100,000 annually. Figure 1 illustrates our analysis of the distribution of pilot pay.

**Figure 1. 2015 Pilot Pay Distribution for First Officers and Captains at Six Regional Airlines**



Source: OIG sample of airline pay and incentive data.

While newly hired first officers at regional airlines have historically received lower compensation, some airlines have recently increased starting pay to attract new pilots. Since August 2015, 11 regional airlines have increased starting base pay for first officers. For example, one carrier increased pay from \$24.62 to \$38.50 per flight hour, a 56-percent increase. Another carrier increased its starting pay from \$22.95 to \$40 per flight hour, a 74-percent increase. We identified several carriers that now advertise first-year pay over \$50,000, including incentives.

## **Regional Airlines Are Taking Steps To Attract and Retain Pilots**

In addition to the pay increases implemented since mid-2015, regional airlines now offer a wide range of financial incentives and other benefits to attract and retain pilots. Such financial incentives are imperative for these airlines because they face significant challenges retaining pilots. The typical career path for a pilot is to gain experience at a regional carrier as a first officer, advance to captain, and then move to a larger carrier. Mainline, low-cost,<sup>11</sup> and cargo carriers primarily recruit from regional airlines by offering higher salaries and more extensive benefit programs. As a result, regional airlines experience significant attrition. For example, 1 carrier with an ambitious growth plan started 2015 with 980 pilots. That year, the airline hired 423 pilots but lost 199 (a net growth of 224 pilots). According to data from another carrier, it lost 553 pilots to mainline or low-cost carriers over 3 years (2013 through 2015). Table 2 illustrates some of the incentives regional airlines implemented to attract and retain pilots.

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<sup>11</sup> These are carriers that have a relatively low-cost structure in comparison with other airlines and offer reduced fares and rates; they include Southwest, Spirit, Frontier, and Allegiant.

**Table 2. Regional Airline Incentives for Pilots<sup>12</sup>**

Incentive	Overview	Airline-specific Examples
Signing Bonus	Paid upon successful completion of training, or to all new hires, or to those having specific experience (e.g., prior airline experience or aircraft type).	Thirteen of the 15 carriers in our universe have advertised signing bonuses ranging from \$2,000 to \$22,100.
Improved Benefits	Increase in airline contribution to health insurance premiums, increase in retirement contributions, increase in company-paid hotel rooms, etc.	SkyWest Airlines increased its contribution to pilots' retirement accounts.
Student Pilot Outreach	Recruiting events at major flight schools and collegiate flight programs.	CommutAir, SkyWest, Republic, and PSA implemented programs with student pilots at colleges, universities, and flight academies to aid the transition from the classroom to the cockpit.
Flow Programs	Flow programs allow pilots at a regional carrier to transition to the carrier's mainline partner or guarantee an interview, based on seniority. Common at regionals that are wholly owned subsidiaries.	PSA Airlines, Piedmont Airlines, and Envoy all offer flow programs to American Airlines. Endeavor offers a guaranteed interview program with Delta Airlines.
Retention Bonus	A bonus that is paid out over time (e.g., quarterly or annually) to encourage pilots to stay at the carrier.	Mesa Airlines implemented a \$25,000 retention bonus paid over 4 years.
Profit Sharing	Profit sharing guarantees that pilots receive a contractually obligated share of the carrier's net income.	SkyWest Airlines implemented a profit-sharing program.

Source: Publicly available information from carrier Web sites.

## **New Qualification Rules Have Significantly Changed Pilot Pool and Experience Levels**

The airline industry recently faced significant regulatory changes that transformed the hiring and training of entry-level pilots. The Airline Safety and FAA Extension Act of 2010 mandated changes to pilot experience and training requirements,<sup>13</sup> and in July 2013, FAA issued a final rule based on those requirements.<sup>14</sup> The rule requires each commercial airline pilot to obtain an Airline Transport Pilot (ATP) license, which requires 1,500 hours<sup>15</sup> of flight experience. The rule also allowed FAA discretion to

<sup>12</sup> These are illustrative examples based on public information available on the 15 regional carriers in our universe. This list is not inclusive, and other carriers in our universe have similar benefits or incentives.

<sup>13</sup> Public Law 111-216 (2010).

<sup>14</sup> 78 Fed Reg. 42324 (July 15, 2013).

<sup>15</sup> Additional requirements within the required hours are 500 (200 for restricted ATP) hours cross-country, 100 hours night flight, 50 hours in the class of rating (e.g., multi-engine), 75 hours instrument, and 250 hours pilot in command.

review and create a new restricted ATP<sup>16</sup> license requiring fewer hours for pilots who had served in the military or completed a qualified academic program. Before the rule change, a regional carrier could hire a pilot with fewer than 1,500 hours of experience as long as the applicant possessed a commercial pilot certificate, which only required 250 flight hours.

According to the regional carrier officials we interviewed, the new qualification requirements, as well as new flight crew duty and rest requirements implemented in 2014, reduced the pool of qualified pilots, which affected their operations. Republic Airways Holdings, for example, reduced the number of flights it operated for its mainline partners in the fourth quarter of 2015 because it did not have enough pilots. Furthermore, the company faced a lawsuit when Delta Air Lines sued Shuttle America (a Republic Airways Holdings subsidiary) for failing to meet its flight schedule.

With the reduced pool of qualified pilots came an increase in the number of pilots with restricted ATPs (i.e., pilots with fewer than 1,500 hours of flight experience). FAA reported that the number of restricted ATPs rose from 10 percent of all ATPs issued in 2014 to 17 percent of licenses issued in 2016 (through September 15), as shown in table 3. The increase in restricted ATPs indicates that since 2014 there are now more new pilots with fewer overall flight hours.

**Table 3. ATP and Restricted ATP Annual Totals**

Year	Initial ATP (multiengine) <sup>17</sup>	Restricted ATP	Total Issued	Percent Restricted ATP
2013 (starting July 15)	2,759	37	2,796	1%
2014	7,442	787	8,229	10%
2015	6,341	1,203	7,544	16%
2016 (through Sept 15)	7,952	1,612	9,564	17%
<b>TOTAL</b>	<b>24,494</b>	<b>3,639</b>	<b>28,133</b>	<b>13%</b>

Source: FAA

The rise in the number of restricted ATPs resulted in more pilots being able to fly with less experience than full ATPs. Some carriers stated that pilots with fewer flight hours contributed to reductions in the experience level and quality of new hire pilots. Carriers also reported that while some pilots had the required hours, those hours were not the type of experience that translated easily to commercial flight operations. This may have been a factor in the washout<sup>18</sup> rates we observed at five of the six carriers we reviewed. At these five carriers, washout rates ranged from 11 to 26 percent of

<sup>16</sup> The restricted ATP allows pilots to fly as first officers, but they are not eligible to fly as captains until they meet the unrestricted ATP requirements. A pilot qualifies for a restricted ATP license when certain requirements are met: 750 hours for current or former military pilots, 1,000 hours for bachelor-degree candidates with an aviation major, and 1,250 hours for associate-degree candidates with an aviation major.

<sup>17</sup> Includes initial ATP multi-engine only. Excludes any ATP certificates that were issued for a rotorcraft category, single-engine class, or a subsequent issuance of a multi-engine ATP for an additional type rating or a change of name or address.

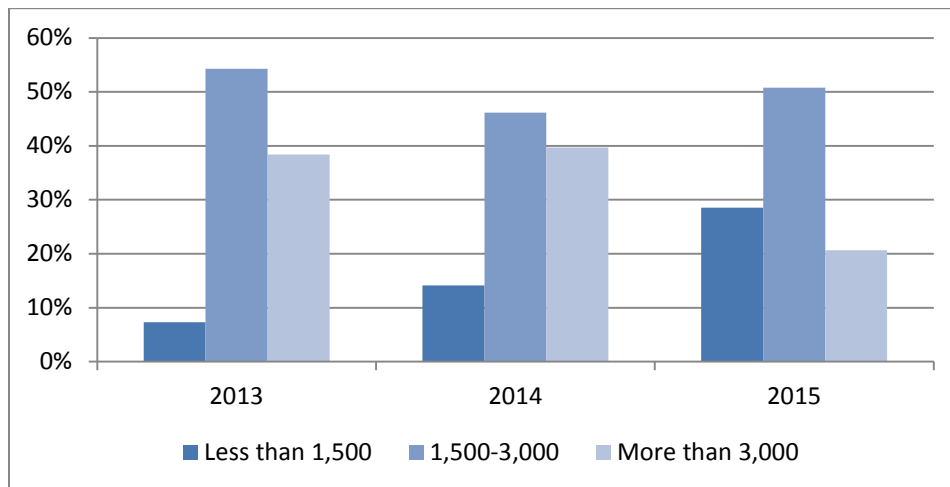
<sup>18</sup> A training “washout” is when the pilot fails to complete the initial flight training program, and is no longer employed as a pilot by the carrier.

their newly hired pilots in 2015. To address this concern, carriers added pilot-training sessions, which increased their overall training times and cost. For example, one carrier had to institute additional training for new pilots, which delayed pilots' ability to fly passenger flights.

A 2015 Pilot Source Study<sup>19</sup> also showed that the last several years have brought about significant changes to pilot qualifications, training, and hiring, which have transformed U.S. regional airlines. For example, prior to the recent regulatory changes, regional carriers were able to hire commercial pilots with fewer than 1,500 total hours and set their own hiring criteria, as long as the applicant possessed a Commercial Pilot certificate. After the regulatory changes, all pilots hired by U.S. carriers were required to have an ATP certificate, which substantially changed the background characteristics of the pilot population entering the regional airline market. The group conducting the study reviewed changes in the experience levels of newly hired pilots in the industry by examining records for 6,734 pilots hired after August 1, 2013. The group determined that pilots hired after the rule changed had significantly more flight hours than those hired previously. Prior to the change, regional airlines often set their desired minimum pilot qualifications above FAA's requirements.

Our analysis of total flight hours among newly hired pilots at three regional airlines<sup>20</sup> shows that the number of pilots with fewer than 1,500 hours increased from 7 percent to almost 30 percent between 2013 and 2015. The number of pilots with more than 3,000 hours decreased from 38 percent to 21 percent (see figure 2).

**Figure 2. Distribution of Total Flight Hours for Newly Hired Pilots in Calendar Years 2013–2015**



Source: OIG analysis of initial flight hours at three regional airlines.

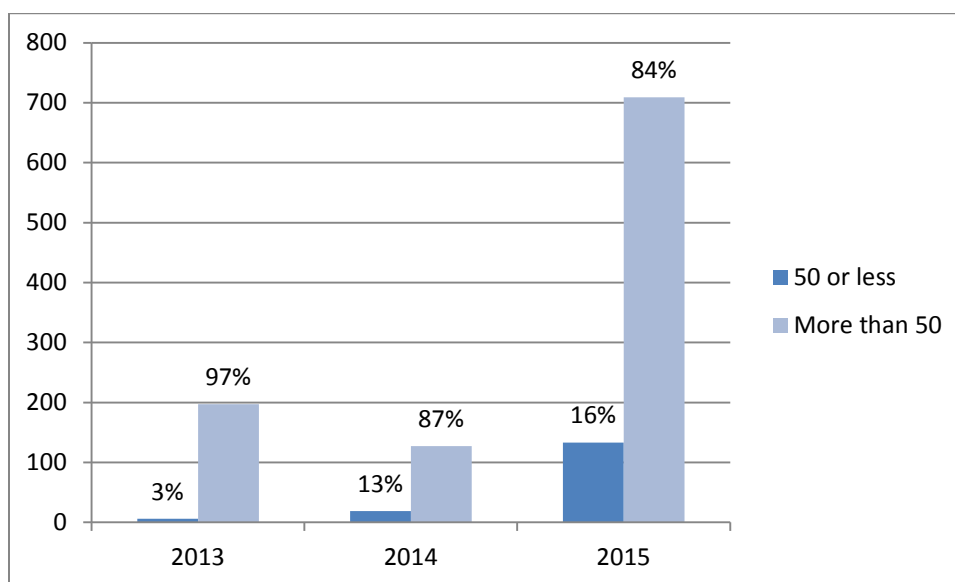
<sup>19</sup> "Pilot Source Study 2015: US Regional Airline Pilot Hiring Background Characteristic Changes Consequent to Public Law 111-216 and the FAA First Officer Qualifications Rule," *Journal of Aviation Technology and Engineering* 5:2 (2016), pp. 3–14.

<sup>20</sup> The other three airlines we visited were unable to provide the requested information for all 3 years.



Furthermore, the regulatory changes in the industry have resulted in a growing percentage of regional airline pilots with less aviation experience in one area in particular—experience in flying aircraft with multiple engines. Our review indicated that some regional airlines are now hiring pilots with 50 hours or less of multi-engine time. Two of the three carriers we reviewed that tracked this information hired pilots with 25 hours or less of multi-engine time. Airlines can, and will, provide additional training if necessary to get the pilots to the 50-hour multi-engine minimum to comply with the new requirements. In addition, analysis of the two carriers that maintained at least 3 years of data on their multi-engine time for their new hires shows an upward trend in the percentage of newly hired pilots with 50 or fewer multi-engine hours, from 3 percent in 2013 to 16 percent in 2015. Our analysis of newly hired pilots and their multi-engine hours is illustrated in figure 3.

**Figure 3. Multi-engine Flight Hours by Experience Level for Newly Hired Pilots at Two Regional Airlines**



Source: OIG analysis of multi-engine flight hours at two regional airlines.

FAA has not analyzed the impact of the 1,500-hour rule on the pilot population or reviewed industry's concerns regarding a pilot shortage, and has no plans for such a study. According to FAA officials, they do not have the expertise to conduct these types of analysis; thus, they often rely on the academic community and industry to do so. We believe this will be an important watch item for the Agency going forward.

## Workforce Challenges Delayed Regional Airlines' Ability To Increase Pilot Pay

Regional carriers often reported facing challenges when negotiating collective bargaining agreements with the pilot workforce. This is largely due to difficulties in reaching agreements on pay during changing economic conditions. Four of the six carriers we visited went at least 3 years past the amendable date<sup>21</sup> to approve their contracts. However, some carriers have made progress in this area. Four of the six carriers that we analyzed reached labor agreements with their pilots' organizations in 2015. One carrier began negotiations in October 2007 but was unable to ratify its contract for 8 years. That carrier stated that as a result of the extended negotiations, pilot wages had fallen significantly below industry standards, and pilot attrition increased. Furthermore, another carrier has yet to reach an agreement with its pilots after 6 years. Table 4 illustrates the status of collective bargaining agreements at the six<sup>22</sup> air carriers we analyzed.

**Table 4. Status of Collective Bargaining Agreements**

Regional Airline	Status	Length of Negotiation
Carrier A	Ratified 3-year agreement in June 2015	6 months
Carrier B	Ratified 4-year agreement in December 2015	2 months
Carrier C	Ratified 5-year agreement in March 2013	Nearly 4 years
Carrier D	No contract	Over 6 years to date
Carrier E	Ratified 3-year agreement in October 2015	8 years

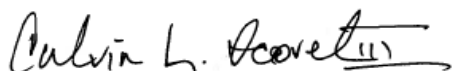
Source: OIG analysis.

<sup>21</sup> Airline contracts do not expire. Under the Railway Labor Act, each contract has an amendable date when the union and the company have the option to amend the contract.

<sup>22</sup> Two of these carriers conduct joint negotiations with their pilots' union. They are presented as one carrier in this chart.

Regional air carriers operate over 40 percent of the nation's commercial flights, making over 10,000 trips a day and serving 157 million people each year. Pilot supply is of critical importance to regional carriers and as such, many of these carriers have enhanced pilot pay and incentives in order to attract and retain qualified pilots. Because FAA does not have regulatory authority regarding pilot compensation or supply, we are not making any recommendations to FAA on the issues presented in this letter at this time. We provided this letter to Agency officials and incorporated their comments, where appropriate. We will issue our report on FAA's oversight of regional airlines at a later date. If I can answer any questions, please contact me at (202) 366-1959 or Matthew E. Hampton, Assistant Inspector General for Aviation Audits, at (202) 366-0500.

Sincerely,

A handwritten signature in cursive script that reads "Calvin L. Scovel III". The signature is written in black ink and includes a horizontal line at the end.

Calvin L. Scovel III  
Inspector General

Enclosure

cc: Federal Aviation Administrator

## Scope and Methodology

We conducted our work from January 2016 through February 2017 in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We limited our universe to the 15 regional air carriers that carried more than 1 million passengers in calendar year 2014.<sup>23</sup> These 15 carriers carried about 97 percent of all the passengers who flew on regional airlines in 2014. Any reference to regional carriers in this letter refers to these large regional carriers with code-share agreements with mainline carriers.

We visited six regional carriers to discuss pilot pay to identify efforts to attract and retain pilots. We selected carriers based on criteria such as growth rates, significant transition, known labor relations issues, and market share. We interviewed labor and industry officials from the Airline Pilots Association (ALPA) and the Regional Airline Association (RAA). Also, we interviewed FAA officials to determine their role in oversight of pilot compensation and the impact of the 1,500-hour rule.

We reviewed a random sample of 502 individual pilot pay records out of a total of 4,343 records for the six carriers. We included base pay plus any incentives, along with average years with the airline. First officers and captains were sampled as separate universes. The sample only included pilots who had completed a full year of work in 2015; pilots hired in 2015 were excluded. Because we looked at the data for all of 2015, the salary numbers presented only partially reflect pay changes that began to occur in the industry in mid-2015. Averages were weighted by each sampled regional carrier's first officer/captain proportion of the total population. Finally, we identified regional air carriers that had increased pay since mid-2015 by reviewing publicly available sources (e.g., regional airline press releases).

We reviewed the impact of new regulations affecting pilots, including the 1,500-hour rule and the status of current labor agreements. To determine the changes in pilot experience levels, we reviewed the 2015 Pilot Source Study review of 6,734 pilots hired after August 1, 2013. We expanded upon the analysis by reviewing the distribution of total flight hours among newly hired pilots at 3 regional carriers from 2013 to 2015. (The other three airlines we visited were unable to provide the requested information for all 3 years.) To further identify changes in the industry, we obtained the number of issued restricted Airline Transport Pilot (ATP) certificates from FAA, reviewed initial multi-engine hours at two regional carriers from 2013 to 2015 (the other four airlines visited were unable to provide the requested information for all 3 years), and reviewed the 2015 training washout rates for six regional carriers.

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<sup>23</sup> Regional Airline Association 2015 Annual Report.