GAO

Testimony

Before the Subcommittee on Aviation, House Committee on Transportation and Infrastructure

FEDERAL AVIATION ADMINISTRATION

Plan Still Needed to Meet Challenges to Effectively Managing Air Traffic Controller Workforce

Statement of JayEtta Z. Hecker, Director Physical Infrastructure Team

GAO

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FEDERAL AVIATION ADMINISTRATION

Plan Still Needed to Meet Challenges to Effectively Managing Air Traffic Controller Workforce

Why GAO Did This Study

In the summer of 2000, the air traffic control system lacked the capacity to handle demand efficiently, and flight delays produced near-gridlock conditions at several U.S. airports. A combination of factors, including the crises instigated by the events of 9/11, temporarily reduced air traffic, but air traffic is now back to near pre-9/11 levels. The ability of the air traffic control system to handle expected traffic in coming years may depend in part on the Federal Aviation Administration's (FAA) effectiveness in planning for a long-expected wave of air traffic controller retirements.

GAO's testimony focuses on (1) the magnitude and timing of the pending wave of air traffic controller retirements, (2) the challenges FAA faces in ensuring that well-qualified air traffic controllers are ready to step into the gap created by the expected large number of retirements, and (3) challenges that will affect the ability of the air traffic controller workforce to meet future changes in the airline industry and use of airspace. GAO's statement is based on past reports on the air traffic controller workforce, including GAO's 2002 report that surveyed controllers and analyzed controller workforce data. GAO has updated this work through interviews with and the collection of data from key stakeholders in the aviation community. This work was performed in accordance with generally accepted government auditing standards.

www.gao.gov/cgi-bin/getrpt?GAO 04-887T.

To view the full testimony, click on the link above. For more information, contact JayEtta Hecker, (202) 512-2834 or heckerj@gao.gov.
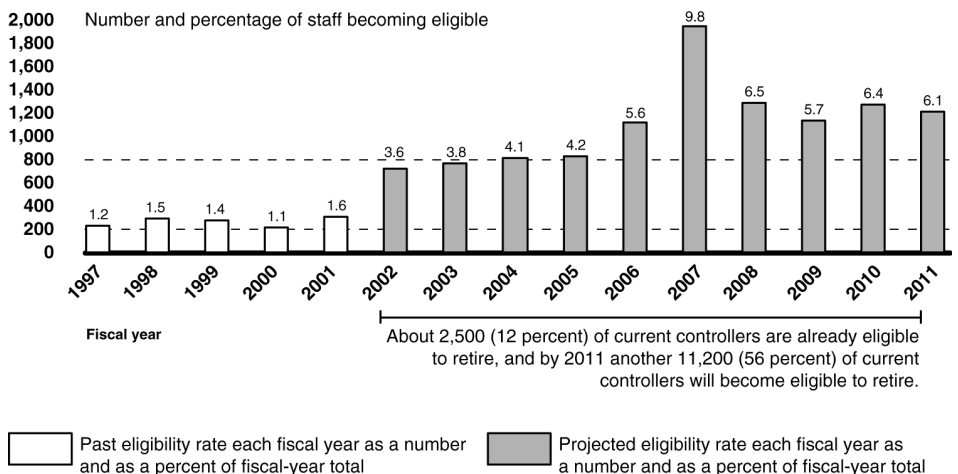
What GAO Found

FAA faces a bow wave of thousands of air traffic controller retirements over the coming decade. GAO's 2002 report warned that almost half of the controller workforce (about 7,000 controllers) would retire over the next 10 years and about 93 percent of controller supervisors would be eligible to retire by the end of 2011. In addition, GAO's analysis showed that retirements could increase dramatically at the busiest air traffic control facilities. FAA and the Department of Transportation's Inspector General have also reported that a surge in controller retirements is on the way.

Past and Projected Air Traffic Controller Retirement Eligibility, by Fiscal Year (2002 Report)

Number and percentage of staff becoming eligible

Fiscal year	Value
1997	1.2
1998	1.5
1999	1.4
2000	1.1
2001	1.6
2002	3.6
2003	3.8
2004	4.1
2005	4.2
2006	5.6
2007	9.8
2008	6.5
2009	5.7
2010	6.4
2011	6.1

About 2,500 (12 percent) of current controllers are already eligible to retire, and by 2011 another 11,200 (56 percent) of current controllers will become eligible to retire.

☐ Past eligibility rate each fiscal year as a number and as a percent of fiscal-year total

▨ Projected eligibility rate each fiscal year as a number and as a percent of fiscal-year total

FAA faces numerous hiring and training challenges to ensuring that well-qualified controllers are ready to fill the gap created by the expected retirements. For example, it can take 2-4 years or more to certify new controllers, and FAA's training facility and air traffic control facilities, where years of on-the-job training occur, have limited capacity. While FAA must make hiring decisions from a long-term perspective, it has generally hired replacements only after a current controller leaves. In 2002, GAO recommended that FAA develop a comprehensive workforce plan to deal with these challenges. However, FAA has not finalized a plan, and its recent actions call into question whether it has adequate strategies to address these challenges. For example, since the beginning of this year, FAA lost nearly 400 controllers and has hired only 1 new controller. Its fiscal year 2005 budget proposal does not request any funding to hire additional controllers.

Challenges will also affect the ability of the air traffic controller workforce to meet future changes in the airline industry and use of airspace. Challenges include the need for FAA to overcome management problems with acquiring systems to modernize the air traffic control system and to adjust to shifts in the use of airspace, including increases in the use of smaller aircraft and changes in air traffic patterns around the country.

United States General Accounting Office

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to participate in today's hearing on the challenges the Federal Aviation Administration (FAA) faces in effectively managing its air traffic controller workforce: in particular, challenges in planning effectively to address the large number of controller retirements expected over the next decade in order to help avoid any related disruptions to air travel. We all recall that in the summer of 2000, the air traffic control system lacked the capacity to handle demand efficiently, and flight delays produced near-gridlock conditions at several U.S. airports. A combination of factors—the downturn in travel caused by the general economic slowdown and of course the crises instigated by the events of 9/11—temporarily reduced traffic significantly and reduced pressure on the air traffic control system—but air traffic is now back to near pre 9/11 levels.

The ability of the air traffic control system to handle expected traffic in coming years, including the status of FAA's preparations for handling the long-expected wave of air traffic controller retirements, has again become a pressing issue. Air traffic controllers play an integral role in maintaining the safety and efficiency of the nation's air traffic control system, and ensuring an appropriately sized and trained workforce is of high importance. We applaud the subcommittee's focus on this critical issue and seek to contribute to the discussion by focusing on the following three topics: (1) the magnitude and timing of the pending wave of air traffic controller retirements, (2) challenges FAA faces in ensuring that well-qualified air traffic controllers are ready to step into the gap created by the expected large number of retirements, and (3) challenges that will affect the ability of the air traffic controller workforce to meet future changes in the airline industry and use of airspace.

Our statement is based on our past reports in three areas: the air traffic controller workforce, including our 2002 report in which we surveyed controllers and analyzed controller workforce data;[1] air traffic control modernization; and airline competition. We have updated this work through interviews with and collection of data from key stakeholders in the aviation community, including several current and former senior FAA

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[1]*Air Traffic Control: FAA Needs to Better Prepare for Impending Wave of Controller Attrition* (GAO-02-591, June 14, 2002).

officials. We performed our work in accordance with generally accepted government auditing standards.

In summary, Mr. Chairman, we found that:

- FAA faces a bow wave of thousands of air traffic controller retirements over the coming decade. Our 2002 report warned that almost half of the controller workforce (about 7,000 controllers) would retire over the next 10 years and that FAA estimated it would experience retirements of controllers at a level 3 times higher than that experienced over the 5-year period from 1996-2000. On top of the substantial retirements, at the time, FAA also projected that an additional 2,000 controllers would be needed by 2010 to address forecasted increases in demand for air travel. We also found that about 93 percent of the 1,862 controller supervisors would be eligible to retire by the end of 2011, which could exacerbate the problem of maintaining adequate controller staffing. In addition, our analysis showed that the busiest terminal facilities and the "en route" centers, used to manage aircraft beyond a 50-nautical-mile radius from airports, would experience a sizable increase in controllers reaching retirement eligibility. FAA and the Department of Transportation Inspector General have also reported that a surge in controller retirements is on the way; the question is – Will FAA be ready for it?

- FAA faces numerous challenges related to ensuring that well-qualified controllers are ready to step into the gap created by the expected wave of retirements but it has not implemented strategies to meet them. Key among these challenges is efficiently hiring and training new controllers in numbers large enough to meet anticipated shortfalls. For example, since it takes 2-4 years and sometimes longer for a newly hired controller to become certified, hiring and training decisions need to be made from a longer-term perspective. However, we found in prior work that FAA's process of generally hiring replacements only after a current controller leaves does not adequately take into consideration this training time. Hiring challenges include effectively screening candidates to help ensure that they have the aptitude needed to control air traffic. Efficiency in hiring will become even more important as FAA faces the large surge in controller retirements, for hiring people who do not make it through the training process wastes money and time—and may affect both the cost of the controller workforce and the ability of FAA to fill positions quickly enough to maintain a sufficient controller workforce to meet its mission. Training challenges include the limited capacity at the training center in Oklahoma City and at the air traffic control facilities. In addition, because of the significant amount of on-the-job training that currently occurs through one-on-one training, to effectively handle a large number of new

controllers, there needs to be an overlap period during which experienced controllers likely to retire soon and newly hired controllers are both on board. While this will result in a temporary increase in the cost of the air traffic controller workforce, eventually more senior, high salary controllers will retire and be replaced by new controllers at lower salaries, possibly reducing expenses; and the need for overlap between these two groups can be reduced. Our 2002 report recommended that FAA develop a comprehensive workforce plan to deal with these challenges, but FAA has not finalized a plan and its recent actions call into question whether it will have adequate strategies to address these challenges. For example, last year, FAA hired 762 controllers, but according to a senior National Air Traffic Controllers Association official, many of these hires took place at the end of the year, and because of limited space in training facilities, many of those hired were unable to begin entry level training immediately. Moreover, since hiring those controllers at the end of the year to reach a level of 15,635, FAA has lost nearly 400 controllers and has hired only 1 new controller through May of this year. Its fiscal year 2005 budget proposal does not request any funding to hire additional controllers to address the wave of retirements.

- Challenges will also affect the ability of the air traffic controller workforce to meet future changes in the airline industry and use of airspace, and these challenges underscore the importance of comprehensive workforce planning that considers and addresses the entire context in which air traffic controllers operate. Among these challenges is the need for FAA to overcome significant and longstanding management problems it has had with acquiring new air traffic control modernization systems within cost, schedule, and performance goals, including the need to effectively involve controllers in the development, deployment, and refinement of these new systems and consider how these new systems will affect the workforce. Another challenge will be adjusting to shifts in the types of aircraft used in commercial aviation (e.g., more flights by smaller aircraft, such as regional jets or air taxis), general aviation, and fractional ownership, where individuals or companies purchase a share in an aircraft for their occasional use. These shifts could have implications for the Aviation Trust Fund. Another challenge likely to impact the controller workforce will be keeping pace with the dynamic nature of the airline industry, in which major and low cost airlines are likely to change flight patterns, in part by adding or removing hubs. For example, industry sources have recently reported that US Airways plans to reduce service to Pittsburgh. Such changes may alter the flow of air traffic in particular areas, emphasizing the need for an air traffic control system that is nimble and can seamlessly continue to provide services as demand shifts.
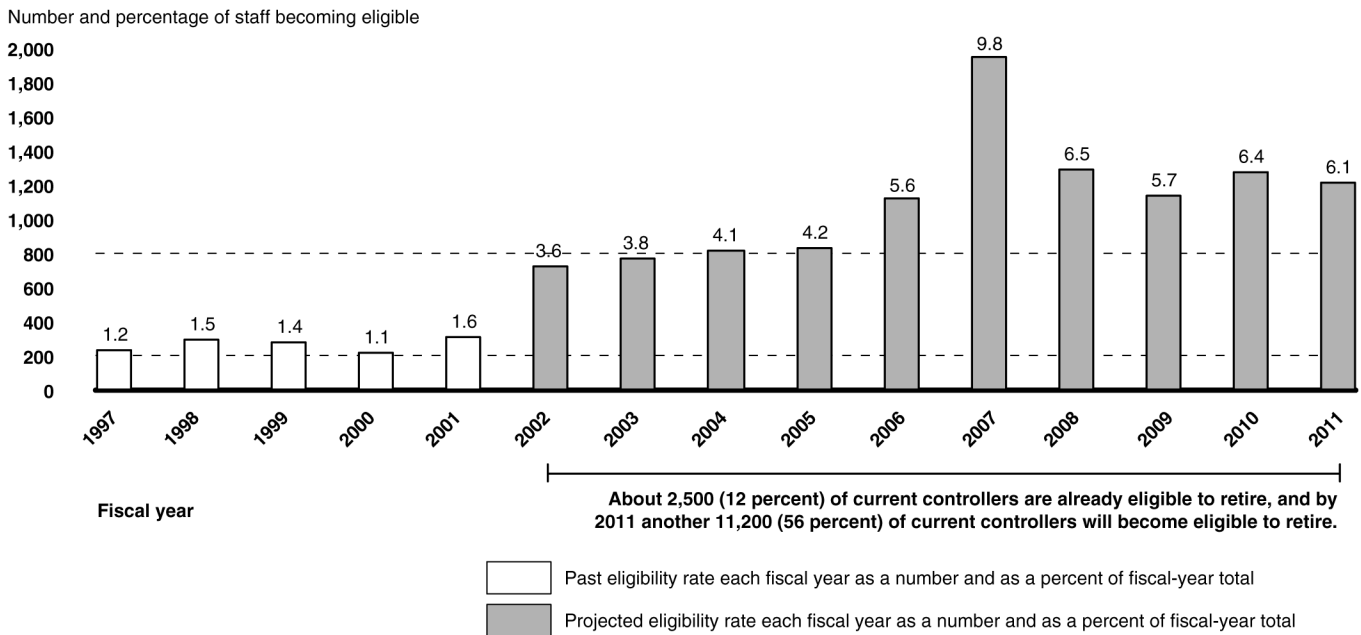
FAA Faces a Pending Wave of Air Traffic Controller Retirements

Although the exact number and timing of the controllers' departures are impossible to determine, scenarios we developed indicate that the total attrition of controllers from FAA will grow substantially in the short and long terms. As a result, FAA will likely need to hire thousands of air traffic controllers in the next decade. At the end of fiscal year 2003, FAA had 15,635 controllers, and according to its staffing standard, it is targeting a controller staffing level of 15,136 in fiscal year 2004, 15,300 in fiscal year 2005, and 16,109 in fiscal year 2009. However, so far this year, the agency has lost nearly 400 controllers due to retirements and as of May had hired only 1 controller. FAA has reported similar projections of a wave of air traffic controller retirements, and in a 2004 report, the Inspector General also reported on the coming wave, citing FAA's estimate that nearly 7,100 controllers could leave the agency by 2012.[2] Our 2002 report found that FAA estimated it would experience retirements of controllers at a level three times higher than that experienced over the 5-year period from 1996-2000. On top of the substantial number of retirements, at the time, FAA also projected that an additional 2,000 controllers would be needed by 2010 to address forecasted increases in demand for air travel.

Our 2002 report analyzed, among other things, the retirement eligibility levels for various portions of the controller workforce and found that the annual number of controllers first becoming eligible for retirement would peak in fiscal year 2007, when about 10 percent of the air traffic controllers will become eligible to retire. (See fig. 1.) In addition, we found that by 2011, about 68 percent of the current controllers would be eligible to retire.

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[2]*Opportunities to Improve FAA's Process for Placing and Training Air Traffic Controllers In Light of Pending Retirements*, (Department of Transportation Inspector General, Report Number: AV-2004-060, June 2, 2004).

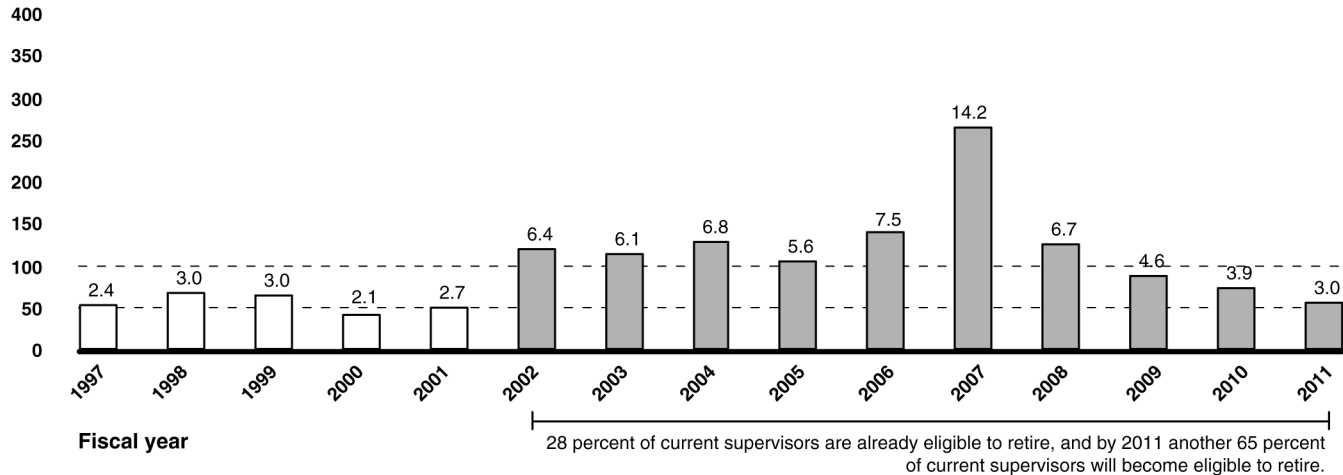**Figure 1: Past and Projected Air Traffic Controller Retirement Eligibility, by Fiscal Year**

Number and percentage of staff becoming eligible

Fiscal year

About 2,500 (12 percent) of current controllers are already eligible to retire, and by 2011 another 11,200 (56 percent) of current controllers will become eligible to retire.

☐ Past eligibility rate each fiscal year as a number and as a percent of fiscal-year total

▨ Projected eligibility rate each fiscal year as a number and as a percent of fiscal-year total

Source: GAO.

Note: This figure appeared in Air Traffic Control: FAA Needs to Better Prepare for Impending Wave of Controller Attrition (GAO-02-591, June 14, 2002).

We found a similar situation with the retirement eligibility of supervisors. Because supervisors are important to air traffic control operations and because they tend to be older than others controlling traffic, we examined retirement eligibility and survey results of supervisors at FAA as of June 2001. We found that supervisors will also become eligible to leave FAA in very high numbers over the next decade. Specifically, we found that 1,205, or 65 percent of current supervisors, would become eligible to retire between 2002 and 2011. (See fig. 2.) However, with 28 percent of current supervisors already eligible to retire and another 65 percent reaching eligibility by 2011, a total of about 93 percent of 1,862 current supervisors will be eligible to retire by the end of fiscal year 2011. As a result, FAA may face substantial turnover in its supervisory ranks over the next decade. This turnover could put a further strain on FAA's ability to maintain a sufficient certified controller workforce, as experienced controllers will be tapped to fill open supervisory positions, leaving fewer to control air traffic or provide training for new controllers.

Figure 2: Past and Projected Retirement Eligibility for Supervisory Air Traffic Controllers
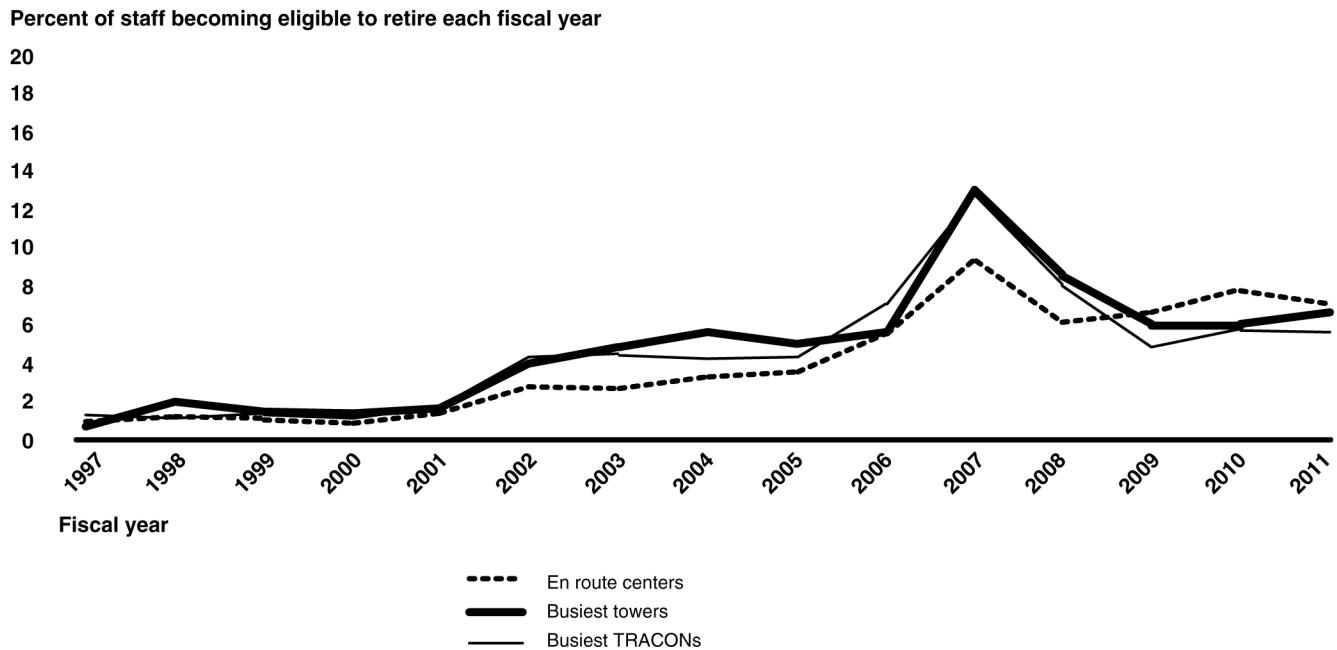
Number and percent of supervisors

Fiscal year

28 percent of current supervisors are already eligible to retire, and by 2011 another 65 percent of current supervisors will become eligible to retire.

☐ Past attrition per fiscal year as a number and as a percent of fiscal-year total

▨ Projected eligibility per fiscal year as a number and as a percent of fiscal-year total

Source: GAO.

Note: This figure appeared in Air Traffic Control: FAA Needs to Better Prepare for Impending Wave of Controller Attrition (GAO-02-591, June 14, 2002).

Because of the crucial role certain facilities play in the national air space system, we analyzed the impact of retirement eligibility on the 21 major "en route" centers (air route traffic control centers used to manage aircraft beyond a 50-nautical-mile radius from airports), the 10 busiest airport towers, and the 10 busiest TRACON facilities (terminal radar approach control facilities used to track airplanes and manage the arrival and departure of aircraft within a 5-to-50 nautical mile radius of airports). Based on our analysis of FAA's employee database, we found the en route centers and the busiest terminal facilities will experience a sizeable increase in the number of controllers reaching retirement eligibility. As figure 3 shows, retirement eligibility in these facilities grows over the next decade.

Figure 3: Past and Projected Retirement Eligibility for En Route Centers, 10 Busiest Towers and 10 Busiest TRACONs, by Fiscal Year

Percent of staff becoming eligible to retire each fiscal year

Fiscal year

- - - - En route centers
━━━━ Busiest towers
──── Busiest TRACONs

Source: GAO.

Note: This figure appeared in Air Traffic Control: FAA Needs to Better Prepare for Impending Wave of Controller Attrition (GAO-02-591, June 14, 2002).

Based on our analysis for the towers, we found that the Denver tower had the highest proportion of retirement-eligible controllers as of September 30, 2001, with 14 of its 51 controllers (27 percent) eligible to retire. We found that by the end of fiscal year 2006, 45 percent of Denver's current controllers would be eligible to retire, and by the end of fiscal year 2011, 46 of its 51 controllers (90 percent), will reach retirement eligibility.

Our analysis of the 10 busiest TRACON facilities showed that the Dallas/Fort Worth TRACON had the highest level of current controllers eligible to retire at the end of fiscal year 2001, with 36 of its 147 controllers (24 percent) eligible. We found that by the end of fiscal year 2006, the cumulative percentage would grow to 46 percent, and by the end of fiscal year 2011 would reach 87 percent, as 128 of the 147 controllers currently at the facility would reach retirement eligibility.

In examining the 21 major en route centers, we found that the Jacksonville center had the highest proportion of retirement-eligible controllers at the end of fiscal year 2001, with 79 of its 376 controllers (21 percent) eligible for retirement. According to our analysis, by the end of fiscal year 2006, at least 29 percent of current controllers would be eligible for retirement at 10 centers—Albuquerque, Atlanta, Boston, Fort Worth, Houston, Jacksonville, Los Angeles, Memphis, Seattle, and Washington, D.C.

We are not alone in seeing a bow wave of controller retirements approaching over the next several years. This month, FAA provided us with projections that 329 controllers would retire in fiscal year 2004, and that this level would double by fiscal year 2007 to over 650 in that year, and double again to 1170 by fiscal year 2013. These levels are significantly higher than the average of less than 200 retirements per year over the past 5 years (1999-2003). Similarly, the Department of Transportation Inspector General reported this month that increasing numbers of controllers will become eligible to retire through 2012, with a peak of retirement eligibility around fiscal year 2007, and that FAA had estimated that nearly 7,100 controllers could leave FAA by fiscal year 2012.

FAA Faces Challenges to Hiring and Training an Adequate Number of Well- Qualified Controllers but Lacks Strategies to Meet These Challenges

There are several challenges related to hiring and training large numbers of air traffic controllers in the short amount of time available. Although we identified these challenges in 2002 and recommended that FAA create a comprehensive workforce plan that addresses these challenges, FAA has not yet created a plan. Moreover, its recent actions suggest that it has not implemented strategies to meet these challenges and put into place a system that will bring on board air traffic controllers in time to deal with the projected retirements of many controllers. However, senior FAA officials told us that the agency's new Air Traffic Organization is currently preparing a comprehensive business plan, including a comprehensive controller workforce plan, which is due to the Congress in December 2004.

A key component of workforce planning is ensuring that appropriately skilled employees are available when and where they are needed to meet an agency's mission. This means that an agency continually needs trained employees to become available in time to fill newly opened positions. We reported in 2002 that FAA's hiring practice was generally to hire new employees only when current employees leave, which does not adequately account for the time needed to train controllers to fully perform their functions. The amount of time it takes new controllers to gain certification depends on the facility at which they work, but generally, training takes from 2 to 4 years and can take up to 5 years at some of the busiest and

most complex facilities. Moreover, during the training period, the current training process depends upon substantial one-on-one training, during which an experienced controller works directly with a controller in training, monitoring the trainee's actions, so there must be an overlap of experienced controllers and newly hired controllers. FAA regional officials, who are responsible for ensuring that FAA's air traffic facilities are adequately staffed, were particularly concerned about FAA's general hiring practice. Specifically, the officials were concerned that significant increases in retirements would leave facilities short of qualified controllers while new trainees were hired and trained.

Our report also noted that the lack of experienced controllers could have many adverse consequences. For example, several FAA regional officials stated that if a facility becomes seriously short of experienced controllers, the remaining controllers might have to slow down the flow of air traffic though their airspace. If the situation became dire, FAA could require airlines to reduce their schedules, but this would be an unlikely, worst-case scenario, according to some FAA regional officials. Also, because there would be fewer experienced controllers available to work, some FAA facility officials stated that those controllers could see increased workloads and additional, potentially mandatory, overtime. In addition to potentially resulting in increased work-related stress and sick leave usage, it could also cause experienced controllers to retire sooner than they otherwise might. For example, based on our 2002 survey of controllers, we estimated that 33 percent of controllers would accelerate their decision to retire if forced to work additional mandatory overtime.

Identifying sources of future potential employees with the requisite skills and aptitude is also important. Efficiency in hiring will become even more important as FAA faces the wave of controller retirements, for hiring people who do not make it through the training process wastes money and time—and may affect both the cost of the controller workforce and the ability of FAA to fill positions quickly enough to maintain a sufficient controller workforce to meet its mission. FAA has historically hired new controllers from a variety of sources, including graduates from institutions in FAA's collegiate training institute program, the Minneapolis Community and Technical College, former FAA controllers who were fired by President Reagan in 1981, and former Department of Defense controllers. FAA can also hire off-the-street candidates to become controllers. The success of hiring candidates who actually become controllers depends in large part on identifying potential candidates who have the appropriate aptitude for controllers' work. Historically, FAA used its initial entry-level training at its academy to screen out candidates who could not become

successful controllers. According to FAA officials, as many as 50 percent of off-the-street applicants have dropped out before finishing the required training program, at a cost of $10 million per year, a rate that highlights the difficulty of successfully hiring candidates to replace the thousands of new controllers expected to retire. FAA has recently begun to test a new screening exam that it hopes will better ensure that potential new hires have the skills and abilities necessary to become successful controllers. It will take a number of years to determine if the new test has the desired results.

Training challenges include the limited capacity at the training center in Oklahoma City and at the air traffic control facilities. In addition, because of the significant amount of on-the-job training that currently occurs through one-on-one training, to effectively handle a large number of new controllers, there needs to be an overlap period during which both experienced controllers likely to retire soon and newly hired controllers are both on board. While this will result in a temporary increase in the cost of the air traffic controller workforce, eventually more senior, high salary controllers will retire and be replaced by new controllers at lower salaries, possibly reducing expenses; and the need for overlap between these two groups can be reduced.

Our 2002 report recommended that FAA develop a comprehensive workforce plan for controllers to deal with these challenges, but FAA has not finalized a plan and its recent actions call into question whether it will have adequate strategies to address these challenges. For example, last year, FAA hired 762 controllers, but according to a senior National Air Traffic Controllers Association official, many of these hires took place at the end of the year, and because of limited space in training facilities, many of those hired were unable to begin entry level training immediately. Moreover, since hiring those controllers at the end of the year to reach a level of 15,635, FAA has lost nearly 400 controllers and has hired only 1 new controller through May of this year. Its fiscal year 2005 budget proposal does not request any funding to hire additional controllers to address the wave of retirements.

Challenges Will Also Affect the Ability of the Controller Workforce to Meet Future Changes in the Airline Industry and Use of Airspace

There are also challenges in the broader context of the air traffic control system that will affect the ability of the air traffic controller workforce to meet future changes in the airline industry and use of airspace. These challenges need to be considered as FAA develops and implements a comprehensive plan for its controller workforce. Challenges include the need for FAA to (1) overcome significant and longstanding management problems it has had with acquiring new systems to modernize the air traffic control system intended to facilitate the safe and efficient movement of air traffic by controllers and (2) adjust to shifts in the use of airspace, including increases in the use of smaller aircraft and changes in air traffic patterns around the country.

Controller Workforce Planning Inextricably Linked to FAA's Air Traffic Control Modernization Efforts

Controller workforce planning needs to take place in the larger context of FAA's Air Traffic Control modernization efforts in order to make optimal use of the agency's investments. However, as our past work has shown, FAA needs to address longstanding problems it has had in deploying new air traffic control systems on schedule, within budget, and with promised capabilities to facilitate the safe and efficient flow of air traffic by controllers. These new systems are intended to improve the safety and efficiency of the nation's air traffic control system, with some offering the potential to improve the productivity of the controller workforce. To maximize the usefulness of new systems to controllers and to help ensure that safety is not eroded by the introduction of new capabilities, sustained controller involvement is needed as new systems are developed, deployed, and refined. When there is an ineffective link between technology and needs, money and time will be wasted, and the effectiveness of the air traffic controller workforce may be reduced. Moreover, these new systems may change the productivity of the controller workforce, an effect that will need to be taken into account as FAA refines its estimates of future controller workforce needs.

For example, our past work on the Standard Terminal Automation Replacement System (STARS)—the workstations used by controllers near airports to sequence and control air traffic—highlights the importance of controller involvement in the development, deployment, and refinement of air traffic control systems. In 1997, when FAA controllers first tested an early version of this commercially available system, they raised some concerns about the way aircraft position and other data were displayed and updated on the controllers' radar screens. For example, the controllers said the system's lack of detail about an aircraft's position and movement could hamper their ability to monitor traffic movement. In addition, controllers noted that many features of the old equipment could

be operated with knobs, allowing controllers to focus on the screen. By contrast, STARS was menu-driven and required the controllers to make several keystrokes and use a trackball, diverting their attention from the screen. To address these concerns, among others, FAA decided to develop a more customized system and to deploy an incremental approach, thereby enabling controllers to adjust to some changes before introducing others. This incremental approach costs more and is taking longer to implement than the original STARS project. Despite the importance of controller involvement in the development, deployment, and refinement of new air traffic control systems, such activities can be very time-consuming, often take controllers off-line, and place additional pressure on an already constrained workforce. FAA needs to take into account these demands on the controller workforce as part of its comprehensive workforce plan.

Increases in Use of Smaller Aircraft and Changes in Air Traffic Patterns Around Country May Also Affect the Air Traffic Controller Workforce

Changes in patterns of aircraft usage are likely to affect the needs of the air traffic controller workforce. The increased use of regional jets, the possibly expanding use of air taxis, ongoing general aviation aircraft usage, and fractional ownership, where individuals or companies purchase a share in an aircraft for their occasional use, could all increase the number of smaller aircraft in the sky, placing increased demands on the air traffic controller workforce. In addition, possible changes in air traffic patterns around the country may also impact this workforce.

In 2001, we reported that we had found consensus among the studies we reviewed and the industry experts we interviewed that the growing number of regional jets had contributed to congestion in our national airspace.[3] The industry experts we spoke with repeatedly expressed concern about the impact of adding so many aircraft so quickly to airspace whose capacity is already constrained. Because hundreds of new aircraft had been added to already congested airspace while comparatively few turboprops had been taken out of service, many of the experts believed it was inevitable that congestion and delays would increase. They also noted that with many more regional jets on order, congestion and delays were not likely to diminish in the near future. Earlier this month, the Chairman and Chief Executive Officer of AirTran Airways noted that the air traffic

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[3]*Aviation Competition: Regional Jet Service Yet to Reach Many Small Communities* (GAO-01-344, February 14, 2001).

control system may have difficulty absorbing the hundreds of regional jets now on order.[4]

In coming years, air taxis may also add to crowding in the skies. FAA officials told us that they have been briefed on proposals for using air taxis to carry about four passengers each in selected metropolitan areas where there is heavy surface traffic congestion. The use of such air taxis could increase the demand on controllers to provide air traffic services in these metropolitan areas, where it is likely that there is already heavy air traffic. Furthermore, it is possible that any increases in general aviation or fractional ownership could also increase the amount of traffic in the skies—traffic that must be effectively directed by air traffic controllers to ensure the safety of the airways. Moreover, because fees collected for the Aviation Trust Fund are based largely on ticket taxes assessed on paying airline passengers, the change in the mix of aircraft could have implications for the Aviation Trust Fund.

Given the dynamic nature of the airline industry, in which major airlines and low cost airlines may change their flight patterns by adding or removing hubs, the number of flights in any one location may spike or drop abruptly. Recent examples include Independence Air's move to set up operations at Washington Dulles International Airport and reports by industry sources of a US Airways plan to reduce service to Pittsburgh. These types of potential shifts in the location of demand for air traffic services underscore the need for a nimble air traffic control system that can seamlessly continue to provide services as demand shifts.

Concluding Observations

FAA faces a complex task in effectively addressing the bow wave of controller retirements that is heading its way. The number of factors involved, including the need to time hiring so as not to overload training capacities and the need to be responsive to the changing demands of a dynamic industry, highlight the importance of a carefully considered, comprehensive workforce plan. This plan needs to include strategies for addressing the full range of challenges in order to seamlessly transition from the current workforce to a future workforce that is well qualified, trained, and can accommodate changes in the use of our airspace.

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[4]Testimony of Joseph Leonard, Chairman and Chief Executive Officer of AirTran Airways before the Subcommittee on Aviation, House Committee on Transportation and Infrastructure, June 3, 2004.

However, although we recommended to FAA 2 years ago that it develop a comprehensive plan for this purpose, it has not yet finalized a plan. Senior FAA officials told us that the Air Traffic Organization is currently preparing a comprehensive business plan, including a comprehensive controller workforce plan, which is due to the Congress in December 2004. This is an important opportunity to establish strategies to meet the challenges ahead. Today these challenges continue to underscore the need for action in developing strategies that take into account (1) the expected timing and location of anticipated retirements, (2) the length of the hiring and training processes, (3) limitations on training capacities, and (4) changes in the airline industry and use of airspace that may affect the air traffic controller workforce in coming years. Without focused and timely action on all of these fronts, the gap created by the expected bow wave of controller retirements could reduce the effectiveness of the air traffic control workforce to meet its mission just as increased activity in the skies makes its effectiveness more critical than ever to the safety of our airways.

This concludes my statement. I would be pleased to respond to any questions that you or other Members of the Subcommittee may have at this time.

Contacts and Acknowledgments

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