Written Testimony of
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Before the
Subcommittee on Aviation
Committee on Transportation & Infrastructure
United States House of Representatives

"Turbulence Ahead: Consequences of Delaying Long-Term FAA Bill"

Thank you for the opportunity to testify on behalf of the National Air Traffic Controllers Association, AFL-CIO (NATCA) at today's hearing titled "Turbulence Ahead: Consequences of Delaying Long-Term FAA Bill."

NATCA is the exclusive representative for nearly 20,000 employees, including the Federal Aviation Administration's (FAA) air traffic controllers, traffic management coordinators and specialists, flight service station air traffic controllers, staff support specialists, engineers and architects, and other aviation safety professionals, as well as Department of Defense (DOD) and Federal Contract Tower (FCT) air traffic controllers.

Executive Summary

The National Airspace System (NAS) moves over 45,000 flights and 2.9 million passengers, and more than 59,000 tons of cargo every day across more than 29 million square miles of airspace. Although it is the safest, most efficient, and most complex system in the world, we should always strive to bolster safety, mitigate risk, and improve efficiency.

The single most important action Congress can take for the safety of the NAS would be to pass a long-term, comprehensive FAA Reauthorization bill into law before the end of the year.

NATCA applauds the Transportation & Infrastructure Committee and the House of Representatives for its passage of "Securing Growth and Robust Leadership in American Aviation Act" (H.R. 3935) with an overwhelming bipartisan majority.

For the better part of two decades, the Federal Aviation Administration (FAA), like much of the federal government, has faced an unstable and unpredictable funding stream. Whether due to the risks of lapsed appropriations or authorizations, such interruptions have negatively affected all aspects of the Agency, making it increasingly difficult to maintain the safety and efficiency of the NAS.

Even when the Agency is not facing the threat of a shutdown, multiple administrations from both parties have submitted insufficient FAA budget requests to Congress. FAA's requests have often fell well short of the resources need to meet the full needs of the NAS. Historically, Congress provides the Agency with the resources it requests through both authorization of top-line numbers and the annual appropriations process. However, because FAA consistently requested too little, there are significant backlogs of NAS system sustainment and ATC facility sustainment, in addition to mounting delays in the implementation of NAS modernization and system improvements as well as ATC tower and radar facility replacement.

Air traffic controller (ATC) staffing is another area in which this troubling dynamic persists within' the FAA, as evident by the fact there are more than 1,000 fewer Certified Professional Controllers (CPC) than a dozen years ago. Continuing to follow the flawed controller staffing model developed annually by FAA's Office of Finance and Management after more than a decade of missed hiring goals and staffing projections, followed by reduced expectations the following year would be deeply problematic. Reducing air traffic capacity due to understaffing, as FAA did this past summer in the New York airspace, undermines the efficiency of the NAS.

To further complicate matters, understaffing forces the FAA to assign mandatory overtime to controllers on a regular basis, which leads to fatigue. Fatigue, of course, also adds unnecessary risk into the NAS.

To address the persistent staffing shortage of air traffic controllers, the FAA must adopt the new, more accurate operational staffing targets developed by the Collaborative Resources Workgroup (CRWG). These staffing targets should form the basis for FAA's annual Controller Workforce Plan (CWP) moving forward, so that Congress and the aviation industry have a complete and accurate view of the FAA's ATC staffing needs.

We applaud the Transportation & Infrastructure Committee's inclusion of the CRWG's staffing targets in its long-term FAA reauthorization bill, the "Securing Growth and Robust Leadership in American Aviation Act" (H.R. 3935), which passed the House in July with an overwhelming bipartisan majority. If FAA uses the CRWG as the basis for its CWP, Congress will finally get a complete and accurate picture of the FAA's controller staffing needs. H.R. 3935 also provides for maximum hiring of air traffic controller trainees for the full five-year duration of the bill. This is a critical component as part of a comprehensive hiring and training strategy to meet the operational needs of the NAS.

In addition to limiting NAS capacity, understaffing also requires FAA to assign mandatory overtime to controllers on a regular basis, which leads to fatigue. Fatigue increases unnecessary risk in the NAS.

FAA must be transparent with its need for improved funding for its Facilities and Equipment (F&E) budget, which provides resources for physical infrastructure repairs and sustainment, equipment modernization, and major capital projects. NATCA estimates that FAA requires approximately $4.5 billion for F&E activities in Fiscal Year (FY) 2024, and this number will approach nearly $6 billion in the near future. Despite this increasing need, for the past decade, FAA has consistently requested only approximately $3 billion per year in annual appropriations.

Congress has always met the Agency's stated need, but that has prevented FAA from meeting its own equipment sustainment, replacement, and modernization needs, creating a significant backlog. That backlog will worsen if FAA continues to submit annual budget requests that do not reflect its true needs moving forward. Failing to maintain and replace critical safety equipment that has exceeded its expected life introduces unnecessary risk into the system. Further, funding limitations prevent the FAA from designing and implementing new technologies that will improve safety, such as an airport surface surveillance situational awareness tool to address wrong surface landings — a top safety concern.

NATCA's testimony will focus on: (1) the current controller staffing crisis and training challenges and how they could affect safety and efficiency; (2) the negative effects of equipment and infrastructure backlogs and how those affect critical modernization and infrastructure programs, including significantly delaying the development and implementation of new safety technology that will improve surface surveillance at airports and help mitigate the risks of runway incursions; and (3) the negative effects that a potential shutdown – due to a lapse in

authorization or appropriations – would have on the NAS, as well as on the nearly 20,000 air traffic controllers and other aviation safety professionals represented by NATCA.

I. Controller Staffing and Training Hampered

For years, NATCA has been alerting policymakers that the controller staffing shortage negatively affects all aspects of the NAS. Despite meeting its self-imposed air traffic controller hiring goals for much of the past decade, the FAA has not kept up with attrition. Consequently, as of the end of fiscal year (FY) 2023, there were more than 1,000 fewer CPCs employed by the FAA than at the end of FY 2012. Currently, many of FAA's fully certified controllers are working mandatory overtime hours, frequently 6-day workweeks and 10-hour days, to make up for the staffing shortage. Some have even been working those schedules for their entire careers. Over the long-term, this will continue to introduce unnecessary risk into the system.

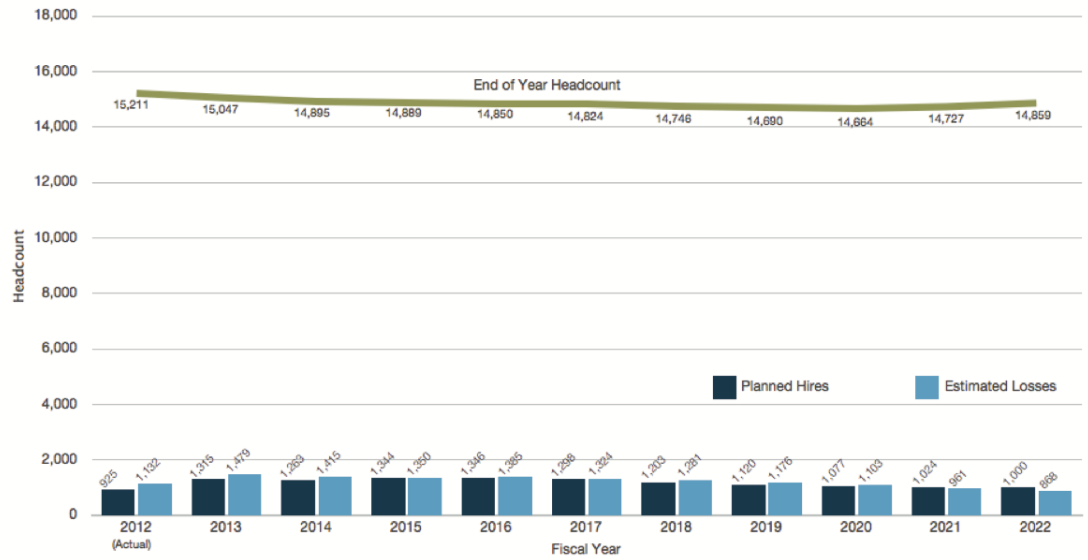
When there are too few fully certified professional controllers (CPCs), positions have to be combined, resulting in divided attention between different responsibilities. Most commonly, controller staffing shortages are mitigated through reducing efficiency – meaning flight delays. Chronically understaffed facilities also introduce unnecessary safety risks into the system.

Although the FAA has taken steps in the right direction, such as upwardly adjusting its hiring goals for each of FY 2024-2026 to 1,800 new hires, a protracted shutdown would cause immediate and irreparable harm to the FAA's near-term plans to address controller staffing. At minimum, the FAA's training academy in Oklahoma City discontinues operations during a shutdown and the students are sent home, while new classes of controller trainees in the pipeline will have their start-dates significantly delayed, leading to additional attrition among the scheduled new hires.

Even before the current funding uncertainty began, according to the FAA's Controller Workforce Plan, 40% of those who were members of a hiring class between 2014 and 2017 were removed from the FAA, resigned, or are still in training, meaning FAA can only expect about 60% of controller trainees to reach full certification within five to seven years of their hire. As a result, because it takes between one and three years for a new FAA Academy graduate to reach full certification, an increased hiring goal would take several years to have any positive effect on CPC totals. If the Academy is closed and hiring stops, the FAA's CPC shortage will become even more pronounced for the next five to seven years.

A lapse in authorization or appropriations certainly would not be the first major disruption that has harmed controller staffing levels. In 2013, across-the-board spending cuts as a result of Sequestration forced the FAA to institute a hiring freeze and shutter the FAA Academy between March and December of that year. This came at a time in which the FAA was struggling to replace retiring controllers, and the Agency has never made up for that sequester-related hiring freeze. In fact, in its 2013-22 Controller Workforce Plan, FAA stated to Congress that it planned to hire 1,315 controller trainees in 2013 and 1,263 in 2014. Yet, when it hired only 554 controller trainees in 2013, missing its target by over 700 because of sequestration, the following year it only amended its 2014 hiring target to 1,286 adding merely 23 additional new trainees – a goal it missed by over 170.

Figure 3.1: Projected Controller Workforce Controller Trends



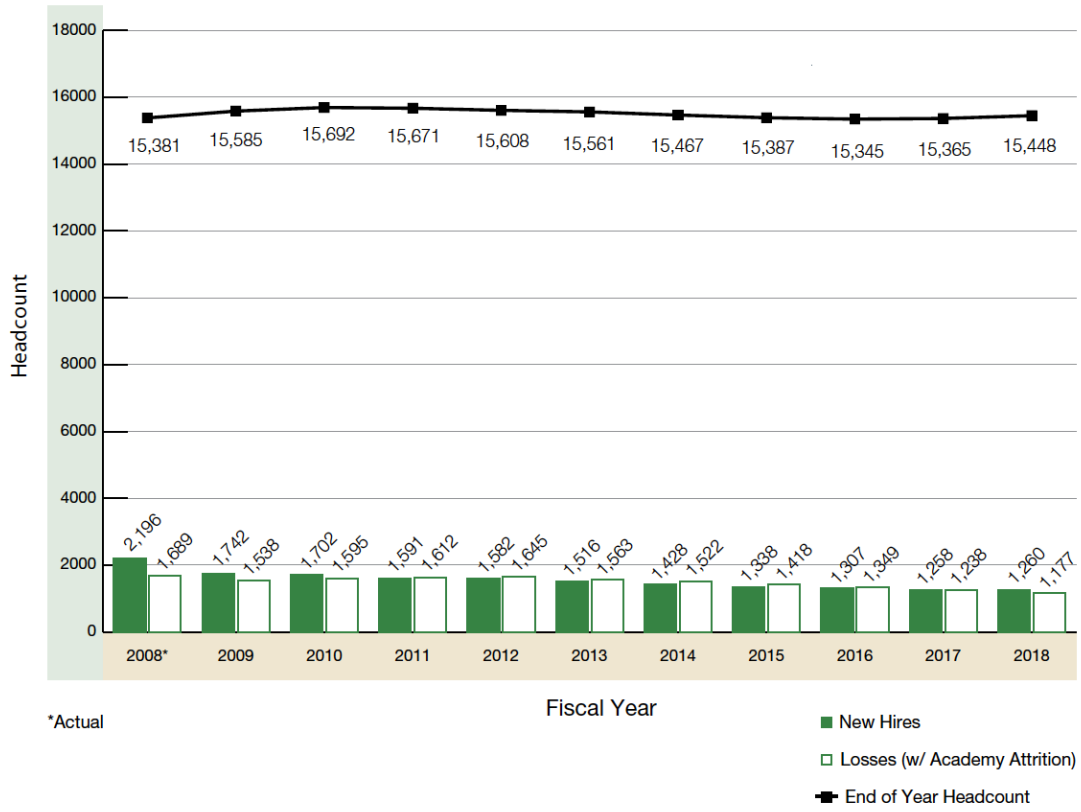
Note: Annual hires and losses are a relatively small proportion of the total controller workforce. Forecast does not include the effects of sequestration.

A Plan for the Future, 10-Year Strategy of the Air Traffic Control Workforce 2013-22, Chapter 3: Staffing Requirements, at 13.

It's also important to note that in 2013, FAA projected essentially a flat total headcount including CPCs and trainees over the next decade. Instead, it immediately missed even that modest pace in 2013, hovered between 700-800 below that goal for much of the decade, and then once COVID-19 began, fell about 1,400 behind.

But, if you go back further to the 2009 CWP, the same table showed targets of significantly more hiring and total on-board headcount of between 15,365 to 15,692 for each year over the next decade.

Figure 3.1 Projected Controller Workforce



NOTE: *Annual hires and losses are a relatively small proportion of the controller workforce.*

A Plan for the Future, 10-Year Strategy for the Air Traffic Control Workforce 2009-2018, Chapter 3: Staffing Requirements, at 12.

Sequestration also forced the FAA to issue a "save money furlough" affecting every employee, including air traffic controllers. During the week of April 21-27, 2013, delays nearly tripled at our nation's airports, from 5,103 to 13,694, when compared to the same week the year before and the year after.

Then, again, in late Sept. 2013, because Congress had not passed appropriations bills to fund the government for FY 2014, the government was forced to shut down for 16 days shuttering much of the FAA along with it, which resulted in furloughs to FAA employees. The Office of Management and Budget (OMB) estimates that these furloughs cost the government a total of $2.5 billion.

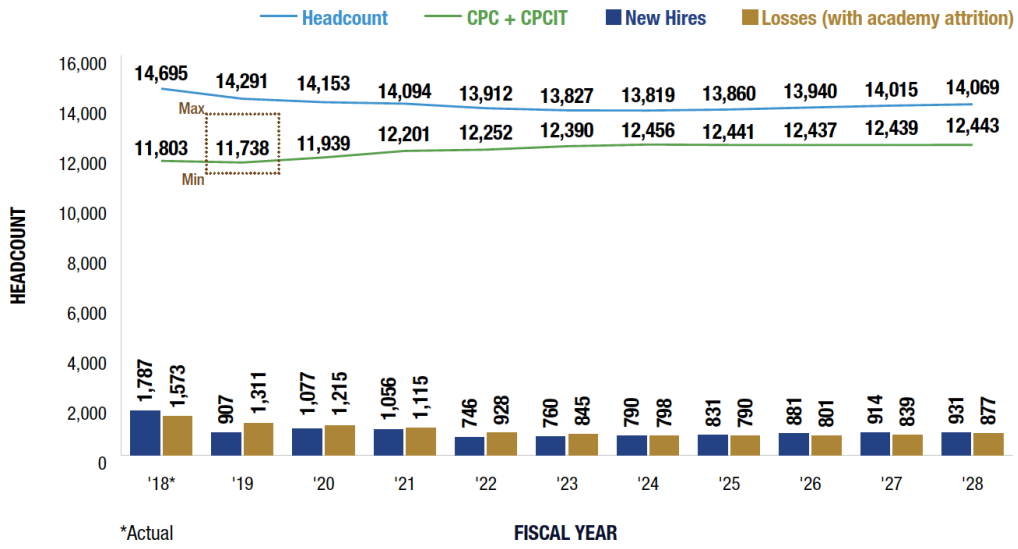
In early 2018, Congress and the White House failed — on two separate occasions — to enact funding legislation and the government was shut down for three days between Jan. 20-22, and then again on Feb. 9. On March 23, Congress narrowly avoided its third federal government shutdown in a two-month period when it passed an omnibus spending package that funded the

government and extended FAA authorization through Sept. 30, 2018. Prior to that, Congress was on its fifth consecutive CR and fifth consecutive extension to FAA authorization.

From Dec. 2018 through Jan. 2019, the NAS suffered through the longest government shutdown in U.S history, exacerbating a controller staffing crisis that continued to go from bad to worse.

By the 2019-2028 CWP, FAA Finance had long abandoned its goals of approximately 15,500 total on-board headcount including CPCs and trainees from a decade earlier and even abandoned the total on-board headcount including CPCs and trainees from 2013 of approximately 14,800. Without justification or explanation, it had adjusted that target all the way down to under 14,000. What prompted this reduced staffing target? Only FAA Finance can answer that question, but you won't find it in any CWP. Instead, you only will find justification for a new headcount number each year, because presumably FAA Finance assumes Congress will not compare past CWPs or notice its consistent failure to meet its stated hiring targets and goals.

FIGURE 3.1 PROJECTED CONTROLLER TRENDS



Air Traffic Control Workforce Plan 2019-2028, Chapter 3: Staffing Requirements, at 15.

Fourteen months later, the COVID-19 Pandemic forced the FAA to close its training Academy again and, even after it reopened, enrollment capacity was reduced by 50% to maintain health and safety protocols.

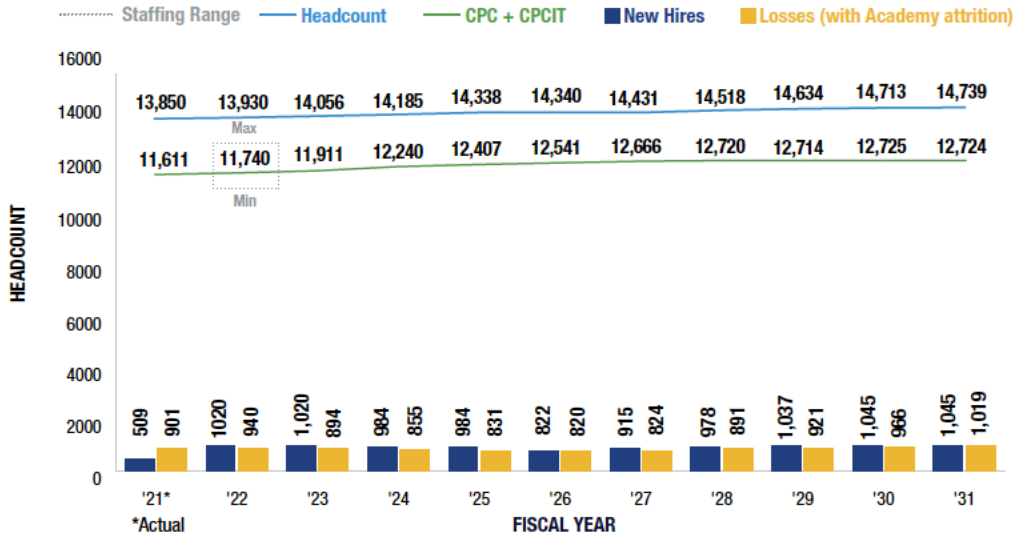
Although FAA reduced its hiring goals in three different years (2013, 2019, and 2021) reacting to a major disruption, the Agency curiously chose not to increase its hiring goals in the following year even though it has significantly more capacity at the Academy to do so. *See* Staffing Fact Sheet (Appendix B).

A longitudinal review of FAA's CWPs from 2009 through 2021 reveals that FAA Finance has always projected that FAA only needs approximately the same number of controllers that it has at that moment in time (Appendix C). As it consistently missed its hiring targets and otherwise failed to keep up with attrition, the on-board controller number has decreased throughout that

time. FAA Finance consistently said it only needs the new, lower controller headcount number each year and looking forward over the next decade. The long-term effect of this practice has led to the FAA's current state: an untenable one in which many controllers work mandatory 10-hour days, and six-day workweeks. Those requirements are based on a system that FAA Finance created of its own device. And, it's one they most likely would have continued but for the scrutiny of this Subcommittee in recent years.

By 2022, after the staffing attrition due to the pandemic, FAA finally acknowledged it needed more controllers and reset its long-term target by 2031 back to 14,739, essentially what it said FAA needed back in 2012. But, having never reached its prior targets and only driving those numbers down year after year after year, NATCA and this Subcommittee have no guarantee that FAA will maintain this new target for the remainder of the next decade, given its consistent practice to change its plan in each of the previous 15 years.

FIGURE 3.1 PROJECTED CONTROLLER TRENDS



Air Traffic Control Workforce Plan 2022-2031, Chapter 3: Staffing Requirements, at 15.

Moreover, we know from the last shutdown that some of our most experienced controllers decided to retire, while others tendered their resignations well-short of their retirement age to meet their financial obligations and provide for their families. Cumulatively, these delays to controller training, early retirements, and unexpected attrition wreak havoc on controller staffing throughout the system.

Recognizing that controller staffing is a major problem for the FAA, in Dec. 2022, then-Acting Administrator Billy Nolen directed the FAA's Air Traffic Organization (ATO) to restart the CRWG and partner with NATCA to collaboratively determine the number of CPCs needed to meet operational, statutory, and contractual requirements, including resources to develop, evaluate, and implement processes and initiatives affecting the NAS. In the weeks that followed, the parties diligently worked with the MITRE Corporation's Center for Advanced Aviation System Development to develop CPC operational staffing targets at each of FAA's 313 air traffic

control facilities. The CRWG completed its work at the end of January and presented its report to the then-Acting Administrator and NATCA President in mid-February. The FAA has not yet adopted the jointly developed CRWG's CPC targets as the basis for its annual CWP to provide Congress and the aviation industry with a more complete and transparent view of FAA's operational workforce needs.

We hope that new FAA Administrator Michael Whitaker will recognize the important collaborative work done by the FAA and NATCA and adopt the CRWG's targets, while dispensing with the failed FAA Finance model.

As we highlighted above, the current CWP is flawed because it relies on a "finance driven" staffing model that the FAA uses to develop facility-by-facility staffing. That model, developed by FAA's Office of Finance and Management (AFN or FAA Finance) incorrectly combines CPCs and CPC-ITs (controllers who were fully certified at a previous facility but are "in training" and not yet fully certified at their new facility). The CWP also ignores existing CPC staffing targets that were developed nearly ten years ago, which the reconstituted CRWG report updated based on current needs. Most importantly, it rejects FAA's own Air Traffic Organization's analysis that the system is severely understaffed.

The Department of Transportation Office of Inspector General (DOT OIG) issued a report in June that agreed with the CRWG's analysis. The DOT OIG's Audit Report AV2023035, titled "FAA Faces Controller Staffing Challenges as Air Traffic Operations Return to Pre-Pandemic Levels at Critical Facilities" concluded that "while the United States has one of the safest air traffic systems in the world, the lack of fully certified controllers, operational supervisors, and traffic management coordinators pose a potential risk to air traffic operations." DOT OIG Audit Report at 18.

Regarding controllers, the DOT IG wrote, "FAA continues to face staffing challenges and lacks a plan to address them, **which in turn poses a risk to the continuity of air traffic operations**." DOT OIG Audit Report at 6 (*emphasis added*). For example, the DOT IG "determined that 20 of 26 (77 percent) critical facilities are staffed below the Agency's 85-percent threshold" and that "managers we interviewed at 16 of the 17 facilities likewise told us their facilities were not adequately staffed. For example, at several facilities, controllers were working mandatory overtime and 6-day work weeks to cover staff shortages." DOT OIG Audit Report at 5, 8.

The FAA's National Airspace System Safety Review Team (SRT) report, issued earlier this month reinforces what NATCA has been saying about air traffic control staffing for a decade when it wrote that "these issues are eroding the margin of safety and injecting risk into the system, and the ATO must take action to urgently address this staffing crisis."

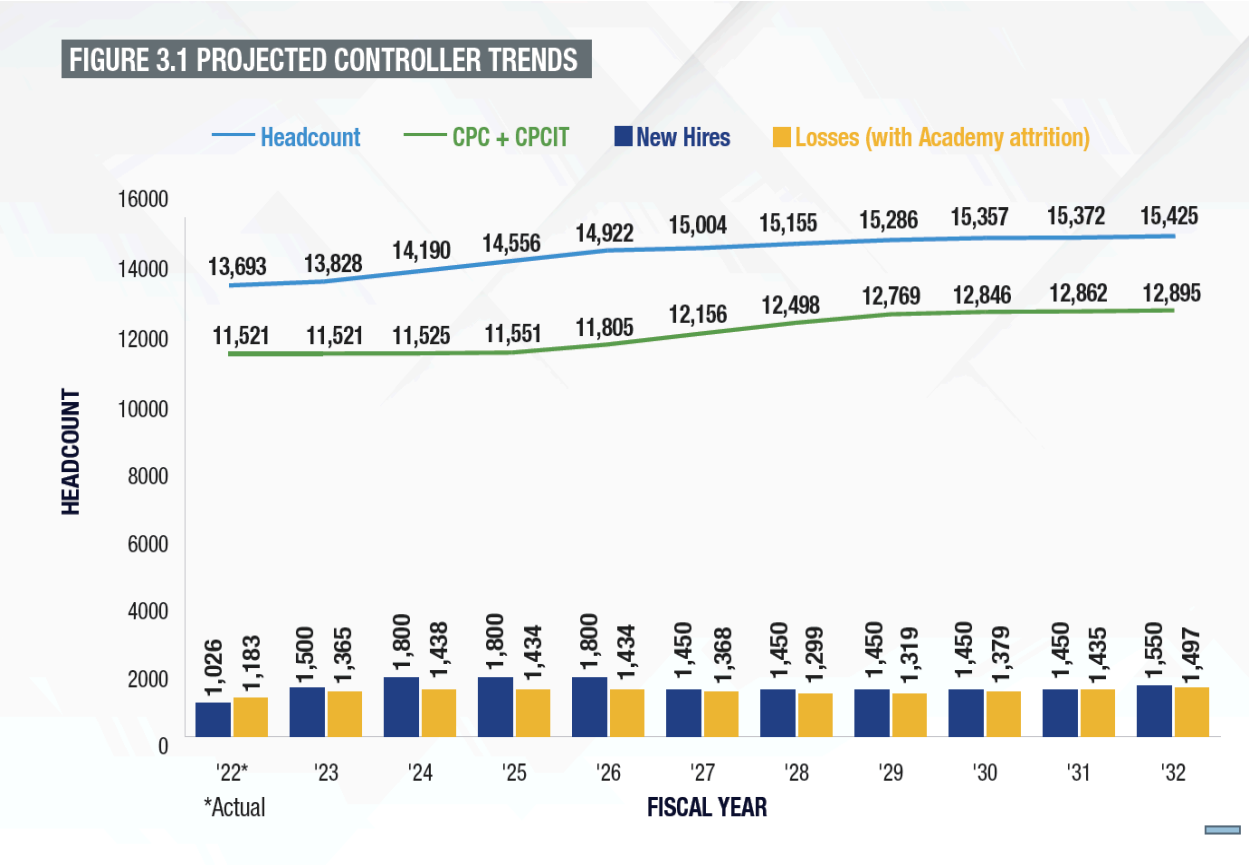
The SRT found that controller staffing shortages lead to diminished air traffic capacity and inefficient operations. The SRT also found that overtime is at historically high levels, as a result of the staffing shortage, concluding that it introduces additional risk into the NAS.

The SRT reinforced what the Department of Transportation Inspector General concluded in its audit issued this past June when it concluded, "FAA has made limited efforts to ensure adequate controller staffing at critical air traffic control facilities."

The SRT found that "when retirements and other attrition is accounted for, the [FAA's] hiring plan produces a negligible improvement over today's understaffed levels, resulting in a net increase of fewer than 200 air traffic controllers by 2032. The [Air Traffic Organization] must determine staffing needs based on actual system needs rather than on Academy throughput and budgetary constraints."

Without rationale, in its 2023-32 CWP, FAA Finance revised its staffing targets upward after the CRWG issued its report. Not coincidentally, it also was after the T&I Committee and Senate Commerce Committee both introduced legislative language to require the FAA to adopt the CRWG targets as the basis for the CWP. Nevertheless, FAA Finance continued with its intentionally misleading blending of CPCs and CPC-ITs into one group, despite pending legislation that requires them to report both groups separately.

As soon as Congress inevitably turns its attention to other pressing matters, NATCA is concerned that FAA Finance will begin lowering its targets again consistent with past practice.



Air Traffic Control Workforce Plan 2023-2032, Chapter 3: Staffing Requirements, at 15.

Referencing the above chart, notice that FAA Finance now believes it needs over 15,400 total headcount (not the 13,800 total headcount it thought it needed just a few years ago). This is the same total it needed, and had, in 2009, but the Agency won't be able to achieve those totals for probably another decade due to the failures of its finance-driven staffing model.

This is entirely disingenuous, because FAA has needed that many total controllers the entire time and FAA Finance intentionally reduced the targets every year until Congress was forced to intervene in recent years.

Continuing to follow FAA Finance's hiring plan – constructed by a line of business that has no experience operating or managing the air traffic system – after more than a decade of missed goals, incorrect projections, and reduced expectations is a fool's errand.

II. Cascading Delays to Critical Modernization and Infrastructure Programs Jeopardize Safety of the NAS

Stop-and-go funding negatively affects critical modernization and infrastructure programs such as delaying development, testing, and implementation of new technologies, as well as delaying

the sustainment and repair of existing safety-critical equipment. Delays to these types of programs have real world consequences.

Each year, the NAS experiences hundreds of safety events such as wrong-surface landings and runway incursions. It is important to note that a shutdown of the FAA would significantly delay development, testing, and implementation of a new surface surveillance situational awareness tool that will help controllers identify and detect when and where aircraft and ADS-B equipped vehicles are on airport surfaces.

Although it is still in its infancy of development, this situational awareness tool would fulfill a similar role as the Airport Surface Detection System – Model X (ASDE-X) and Airport Surface Surveillance Capability (ASSC) at airports that do not currently have any surface surveillance technology. However, unlike ASDE-X and ASSC, this tool would be limited only to visual indicators and will not include "safety logic" enhancements, which is the predictive software that alerts controllers and provides an audible alarm as soon as the safety risk is detected by the program.

To draw a parallel to motor vehicle technology, these tools are similar to the differences in a car's blind spot warning system. Today, many cars have some form of blind spot detection system. Some systems provide a warning light, an audible alarm, and automatic collision assistance, while other systems simply provide a flashing light on a side mirror. Both systems help prevent vehicle accidents, and although one certainly provides more redundancy than the other, both are significantly safer than what drivers had access to prior to the first such system in 2001.

As of today, only 44 airports across the NAS have either ASDE-X or ASSC, and despite being a recent technological upgrade, these programs are in a sustainment-only posture within the FAA. The FAA does not have the funding nor contractual capability to expand these programs to new facilities. As a result, the aviation industry, NATCA, and the FAA began working on the development and implementation of a situational awareness tool to help air traffic controllers mitigate these risks.

The successful and timely implementation of this situational awareness tool likely will hinge on two factors: the availability of sufficient funding for this program, and an intentional acceleration of the FAA's acquisitions management process so that this tool can reach air traffic facilities sooner rather than later. Even if these formidable hurdles are cleared, the current timeline for first-facility installation is June 2024, at the earliest. Any delays to FAA authorization, funding disruptions, or budgetary shortfalls, including a flat Facilities and Equipment (F&E) budget due to a long-term Continuing Resolution, will delay this timeline significantly.

Moreover, in the event of a delay to FAA authorization or further funding disruptions, the programs listed below will experience the following negative effects, just to name a few:

- **En Route Automation Modernization (ERAM)—**Testing and build deployment at air traffic facilities must be rescheduled, which will cause delays.

- **Standard Terminal Automation Replacement (STARS)—**Deployment of a new wrong surface alerting tool know as Arrival Runway Verification (ARV) will be delayed.
- **DataComm—**Facility training at Jacksonville Center (ZJX) and Fort Worth Center (ZFW) would stop and additional classes would be necessary. Cleveland Center (ZOB) implementation would be delayed approximately 60 days.
- **Enterprise Information Display Systems (E-IDS)—**Software testing events must be delayed.
- **Airspace—**New instrument procedure development will be negatively affected, although the extent of the harm and the length of the delay will vary depending on each facility's ability to adjust to a new timeline.

During a shutdown, work on Voluntary Safety Reporting Programs (VSRPs), which provide for critical communication between air traffic safety action program review teams and furloughed staff, is deferred, resulting in the inability to properly identify and mitigate safety and training deficiencies. The safety reporting program for NATCA represented engineers and service area support staff also does not operate; all work on existing reported safety issues and associated mitigation activities is suspended during a shutdown.

The FAA is behind schedule and continues to suffer through budgetary shortfalls on many critical modernization and infrastructure programs. Over the past 14 years, the FAA's F&E budget has not kept pace with inflation. In FY 2009, the F&E budget was $2.942 billion. It subsequently was lower than that in each fiscal year through 2017, before it peaked at $3.3 billion in FY 2018. However, since then it has remained just above or below $3 billion. Estimating for a modest 2% average annual inflation rate over the last 14 years, the FAA's F&E budget should be over $3.8 billion based on its 2009 budget.

This loss of spending and buying power for modernization and infrastructure programs forced FAA into a "fix-on-fail" model by requiring it to prioritize mandatory costs such as subscription services and leases, basic ATC facility sustainment, salaries, travel, and major support contracts, along with NAS system sustainment. This prioritization leaves little to no money for important programs such as ATC facility replacement, the NAS facility sustainment backlog, the NAS system sustainment backlog, NAS system improvements, radar and surveillance sustainment and replacement, and Air Route Traffic Control Center (ARTCC) and Terminal Radar Approach Control facility (TRACON) consolidation, just to name a few.

NATCA was pleased to see the Biden Administration's budget request for $3.46 billion for F&E for FY 2024, which in addition to $1 billion from the Infrastructure and Jobs Act (IIJA) for facilities meets FAA's $4.5 billion need in FY 2024. We support the Senate's Transportation, Housing and Urban Development, and Related Agencies (THUD) appropriations bill that would meet this need for the time being. We are concerned, however, because NATCA projects FAA's F&E budget will need to be increased between to $5.5 and $6 billion in the near future, and the IIJA funding will expire at the end of FY 2027.

In the coming years, FAA also will face unprecedented technological challenges. The continued development and rapid proliferation of advanced air mobility, drones, and other new entrants

could jeopardize NAS safety and efficiency if not integrated properly. NATCA must be involved in all discussions surrounding the safe and efficient integration of these programs.

III. Negative Effects of a Shutdown on Aviation Safety

We know first-hand the kind of irreparable harm that a shutdown would have on the NAS because we have experienced them numerous times over the past two decades. In only the past five years, we have experienced three government shutdowns, while enduring19 additional threatened lapses in appropriations, four threatened lapses in FAA authorization, and a narrowly averted debt ceiling crisis this past summer. *See* Appendix A.

For example, the 35-day government shutdown from Dec. 2018 through Jan. 2019 eroded critical layers necessary to support and maintain the safety of the NAS. When the longest shutdown in U.S. history finally ended, the NAS – as well as the frontline FAA workforce represented by NATCA – was on the verge of unravelling, as many programs that reduce risk and increase safety completely stopped.

NATCA members work hard to mitigate distractions and reduce fatigue in our workforce, but shutdowns increase fatigue and create unnecessary distractions for controllers while they are working airplanes. The added pressure and stress that a shutdown introduces into the NAS is intense.

During this lengthy shutdown, many air traffic controllers were understandably distracted because they were thinking about the shutdown and how they would struggle to pay their mortgages, car payments, and other household expenses. Federal employees are paid bi-weekly and by the time the shutdown ended, they had missed more than two-full pay periods of income. To earn income and take care of their families, in addition to performing their regular stressful duties of separating and sequencing traffic, some controllers also were driving an Uber or Lyft or waiting tables before and after their FAA shifts.

Air traffic control is a complex, high-consequence occupation requiring multiple layers of safety processes and procedures (i.e., safety reporting, quality control, quality assurance, training) to ensure we deliver the highest level of safety to the flying public. Many of these supporting functions are suspended during a shutdown because they do not meet the criteria to continue operating during a lapse in appropriations. You would never ask a surgeon to perform a surgery without their surgical team. As such, you also should not ask controllers to perform their critical safety work without their support team.

NATCA is extremely concerned about the negative and cumulative effects that a shutdown next year would have on the current controller staffing crisis and training challenges.

Unlike air traffic controllers who continue to work without pay during a shutdown, NATCA also represents approximately 3,000 additional aviation safety professionals who would be furloughed, and whose critical safety work is not performed. For instance, NATCA represents FAA staff support specialists who work at air traffic control facilities to provide tactical, strategic, and administrative support for training; quality assurance/quality control of air traffic

control and traffic management; manage and redesign airspace and air traffic control procedures; support operational automation, military operations, and air traffic safety management systems.

NATCA also represents aircraft certification engineers, who assist in design, production approvals, and airworthiness certification of aircraft and their components, as well as aerospace engineers who design and construct critical infrastructure necessary for safe flight operations including air traffic control towers, radar maintenance and installation, navigational aids, and communications systems. These FAA employees are furloughed during a shutdown and are prohibited from completing their important work.

Moreover, beyond the immediate harms to controller staffing and the frontline workforce, shutdowns also delay the implementation of critical modernization technology, as well as the sustainment and repair of existing safety-critical equipment. For instance, certain programs would experience significant negative effects because of a shutdown such as En Route Automation Modernization (ERAM), Standard Terminal Automation Replacement (STARS), DataComm, Enterprise Information Display Systems (E-IDS), and multiple airspace modernization efforts at individual facilities across the NAS. A shutdown also will significantly delay development, testing, and implementation of a new situational awareness tool that will help controllers identify, detect, and mitigate runway incursions on airport surfaces.

IV. Conclusion

To enhance aviation safety, Congress must pass a long-term, comprehensive FAA Reauthorization bill by the end of the year that directs the FAA to adopt the CRWG operational staffing targets and provides for maximum hiring of air traffic controller trainees to meet those operational needs. It must also ensure that FAA addresses its backlog of equipment maintenance, repair, and replacement. Further, Congress must avoid another harmful government shutdown and ensure robust FAA funding levels, especially for the operations and F&E budgets, so that the FAA and NATCA can continue their critical safety and modernization work.

We thank the Transportation & Infrastructure Committee and the Subcommittee on Aviation for its commitment to transparent controller staffing through the adoption of the CRWG CPC staffing targets in its FAA reauthorization bill and for the foresight to require controller "max hiring" to accomplish these critical goals.

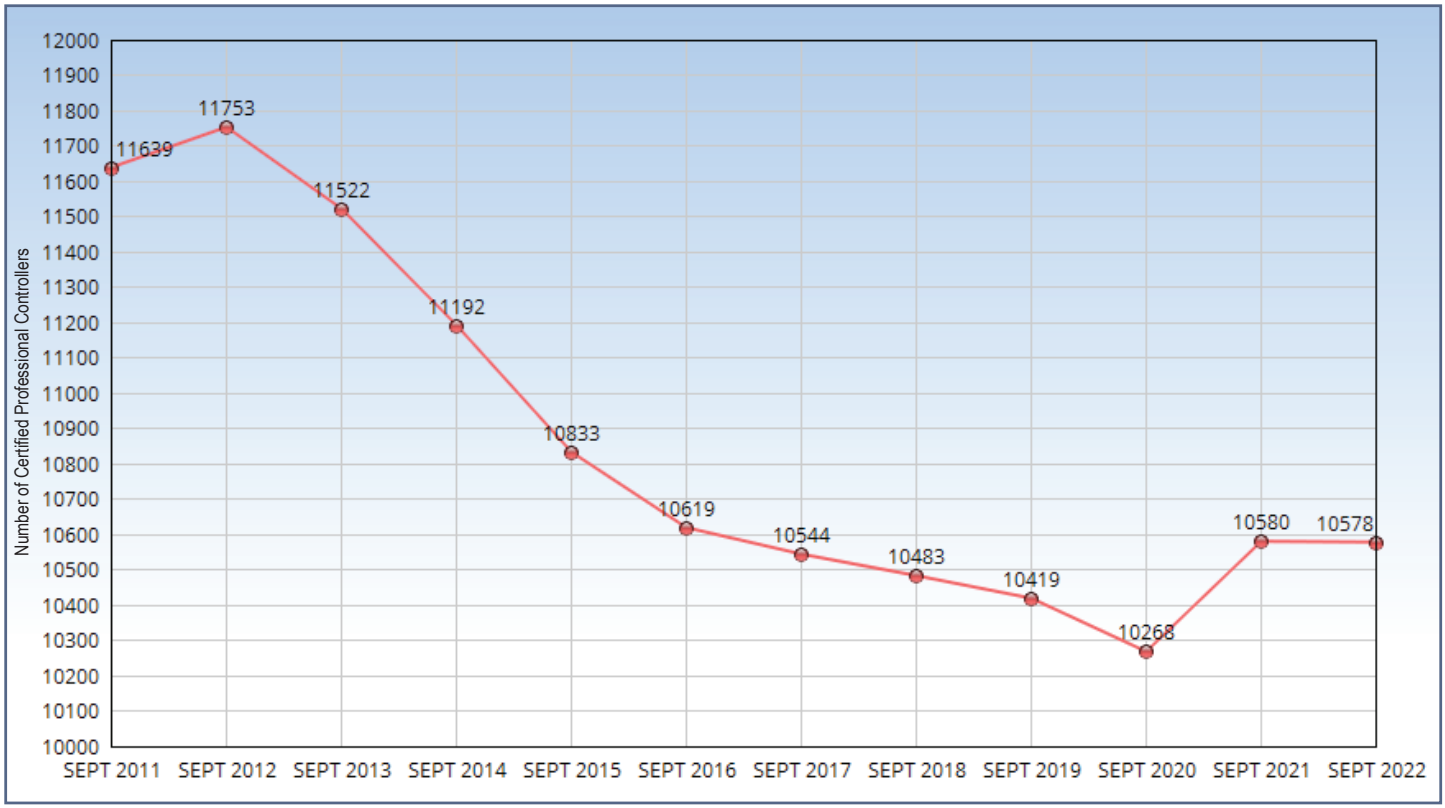
NATCA looks forward to working members of this Committee, as well as all other Members of Congress who are off committee, aviation stakeholders, and the FAA to achieve these and many other mutually beneficial goals.

Thank you for the opportunity to testify.

APPENDIX A – Historical Shutdown Timeline

- **2007-2015**
  - Congress temporarily extended FAA authorization 23 times, while the system endured a partial FAA shutdown due to a lapse in authorization, a government-wide shutdown due to a lapse in appropriations, sequestration mandated across-the-board spending cuts, air traffic controller furloughs that caused crippling flight delays, and a hiring freeze, as well as numerous threatened shutdowns.
- **2018**
  - **January 20-22: THREE DAY SHUTDOWN**.
  - **February 9: SHUTDOWN.**
  - **March 23:** Threatened lapse in appropriations.
  - **March 31:** Threatened lapse in FAA authorization.
  - **October 1:** Threatened lapse in FAA authorization.
  - **October 7:** Threatened lapse in FAA authorization.
  - **December 7:** Threatened lapse in appropriations.
  - **December 22: 35-DAY SHUTDOWN.**
- **2019**
  - **February 15:** Threatened lapse in appropriations.
  - **October 1:** Threatened lapse in appropriations.
  - **November 21:** Threatened lapse in appropriations.
  - **December 20:** Threatened lapse in appropriations.
- **2020**
  - **October 1:** Threatened lapse in appropriations.
  - **December 11:** Threatened lapse in appropriations.
  - **December 21:** Threatened lapse in appropriations.
  - **December 27:** Threatened lapse in appropriations.
- **2021**
  - **September 30:** Threatened lapse in appropriations.
  - **December 3:** Threatened lapse in appropriations.
- **2022**
  - **February 18:** Threatened lapse in appropriations.
  - **March 11:** Threatened lapse in appropriations.
  - **September 30:** Threatened lapse in appropriations.
  - **December 14:** Threatened lapse in appropriations.
  - **December 23:** Threatened lapse in appropriations.
  - **December 30:** Threatened lapse in appropriations.
- **2023**
  - **June 2023:** Debt ceiling crisis narrowly averted.
  - **October 1:** Threatened lapse in appropriations & FAA authorization**.**
  - **November 17:** Threatened lapse in appropriations.
  - **December 31: FAA AUTHORIZATION EXPIRES.**
- **2024**
  - **January 19: GOVERNMENT FUNDING EXPIRES**.

Air Traffic Controller Staffing: 2011-2022



FISCAL YEAR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
On-Board	15,236	15,063	14,461	14,059	14,010	14,050	14,009	14,285	14,193	13,830	13,715	13,418
CPC	11,639	11,753	11,522	11,192	10,833	10,619	10,544	10,483	10,419	10,268	10,580	10,578
CPC-IT	965	1,143	1,187	1,200	1,218	1,259	1,205	1,320	1,414	1,309	1,031	943
DEV (Including AG)	2,632	2,167	1,741	1,667	1,959	2,172	2,260	2,482	2,360	2,253	2,104	1,897
AG	676	671	440	665	936	878	883	980	882	873	917	643
Retirement Eligible	3,064	3,224	3,077	2,982	3,355	2,915	2,410	1,842	1,004	1,143	≈1,000	631
FAA Planned To Hire	829	981	1,315	1,286	1,772	1,619	1,781	1,701	1,431*	910	910**	1,020
FAA Actually Hired	824	925	554	1,112	1,345	1,680	1,880	1,786	1,010	920	510	1,026

Source: FAA Finance Staffing Data Snapshot

**FAA reduced its FY 2019 hiring target from 1,431 to 907 following the 35-day government shutdown.*

***FAA reduced its FY 2021 hiring target from 910 to 500 due to the COVID-19 pandemic and increased its hiring targets for FY 2022 – 2024.*

These data are prior to the Collaborative Resource Workgroup's recommendation to establish new CPC staffing targets for FAA's 313 air traffic control facilities.

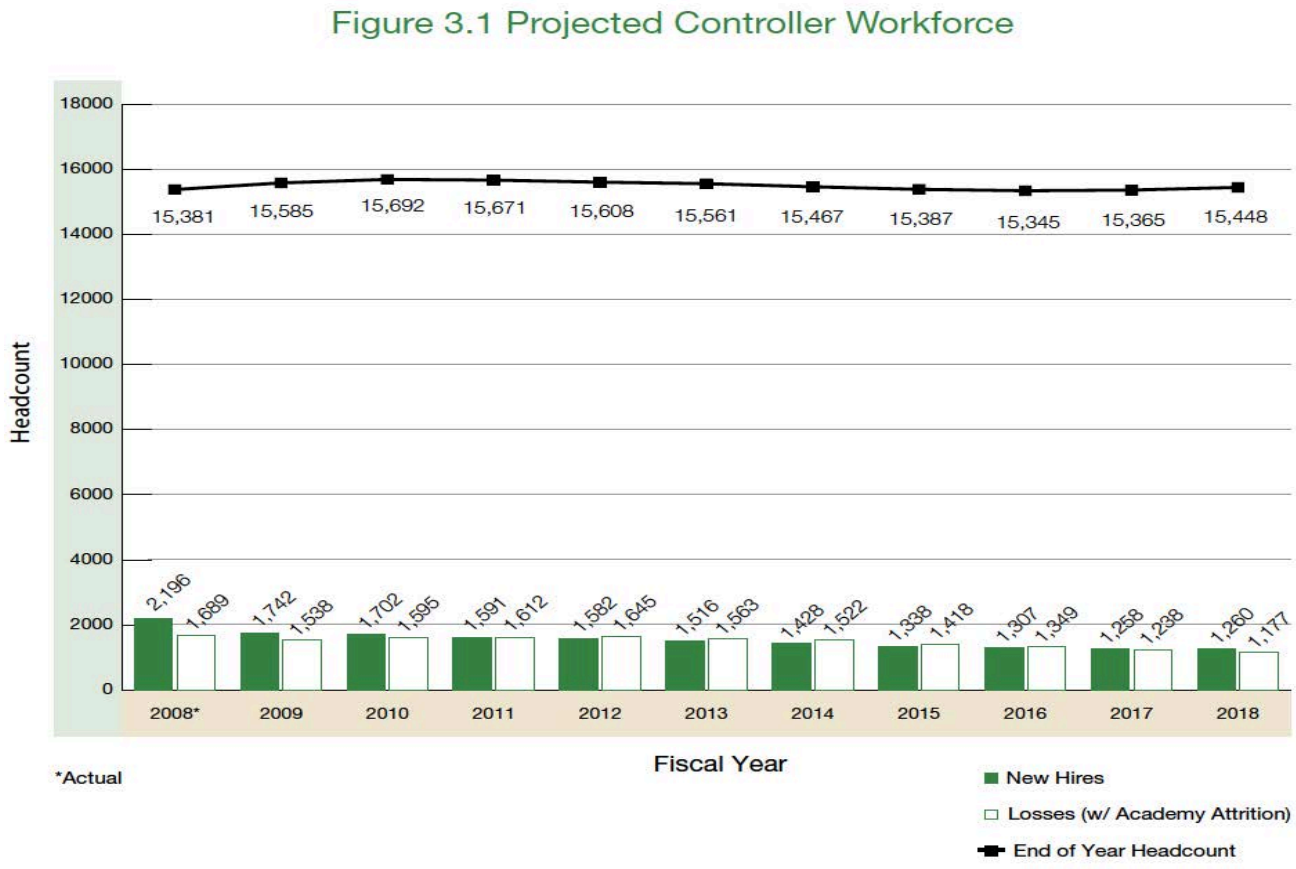
CPC: Certified Professional Controller
CPC-IT: Certified Professional Controller in Training (fully certified elsewhere, transferred to a new facility and began training there)
DEV: Developmental (trainee)
AG: Graduate of the FAA Initial Classroom Training Academy in Oklahoma City, newly hired, and started at their first facility as a trainee

Appendix C

Figure 3.1 from FAA's Annual Controller Workforce Plans 2009-2023 (except 2010)
Projecting Future Air Traffic Controller Hiring, Losses, and Total Certified Professional Controllers plus trainees (total headcount), and Certified Professional Controllers plus Certified Professional Controllers in Training (2014-2023)

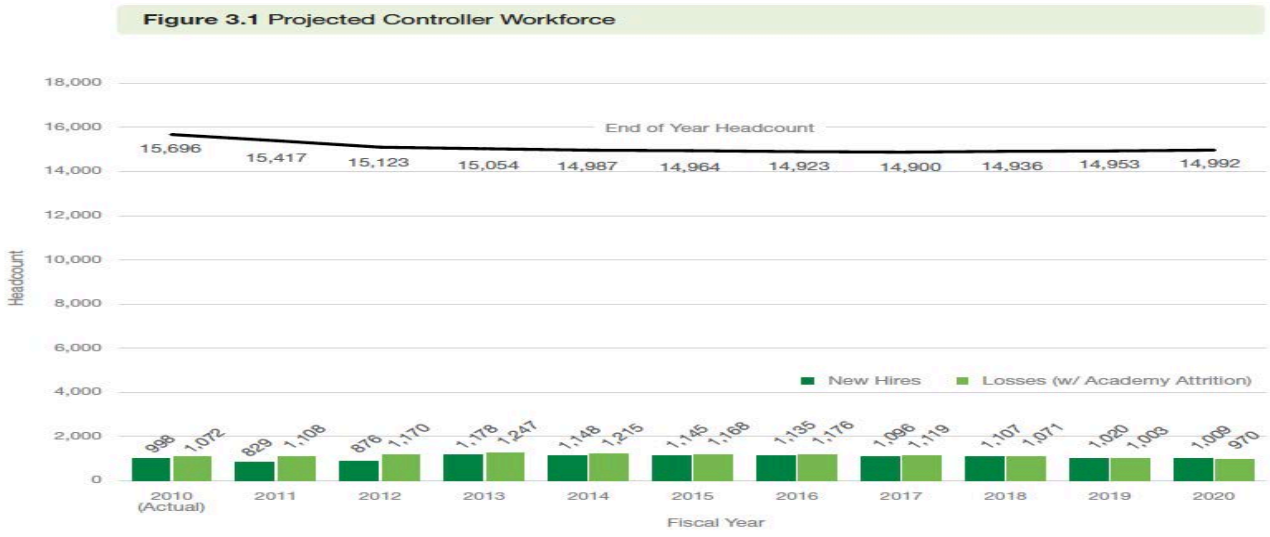
2009-2018:

Figure 3.1 shows the expected end-of-year headcount, losses and new hires by year through FY 2018. Figures for FY 2008 represent actual end-of-year headcount, losses and hires.



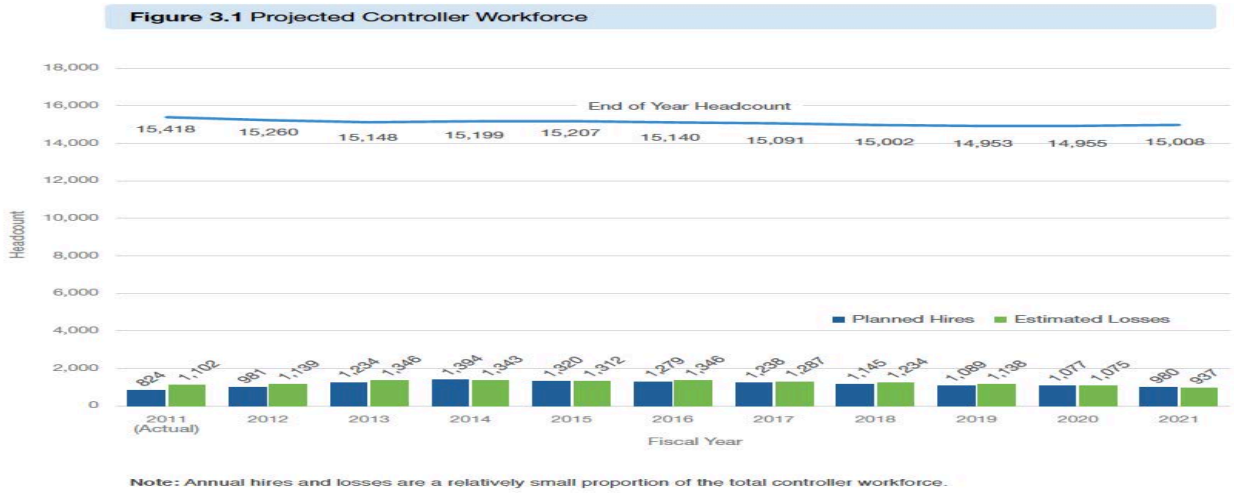
NOTE: *Annual hires and losses are a relatively small proportion of the controller workforce.*

2011-2020:



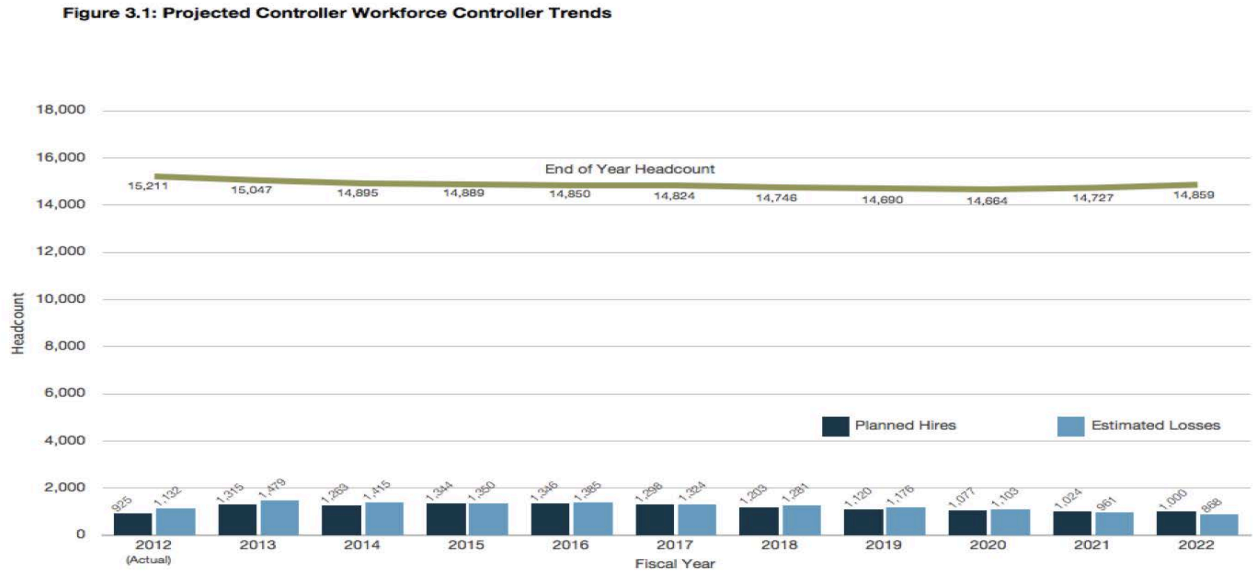
Note: Annual hires and losses are a relatively small proportion of the total controller workforce.

2012-2021:



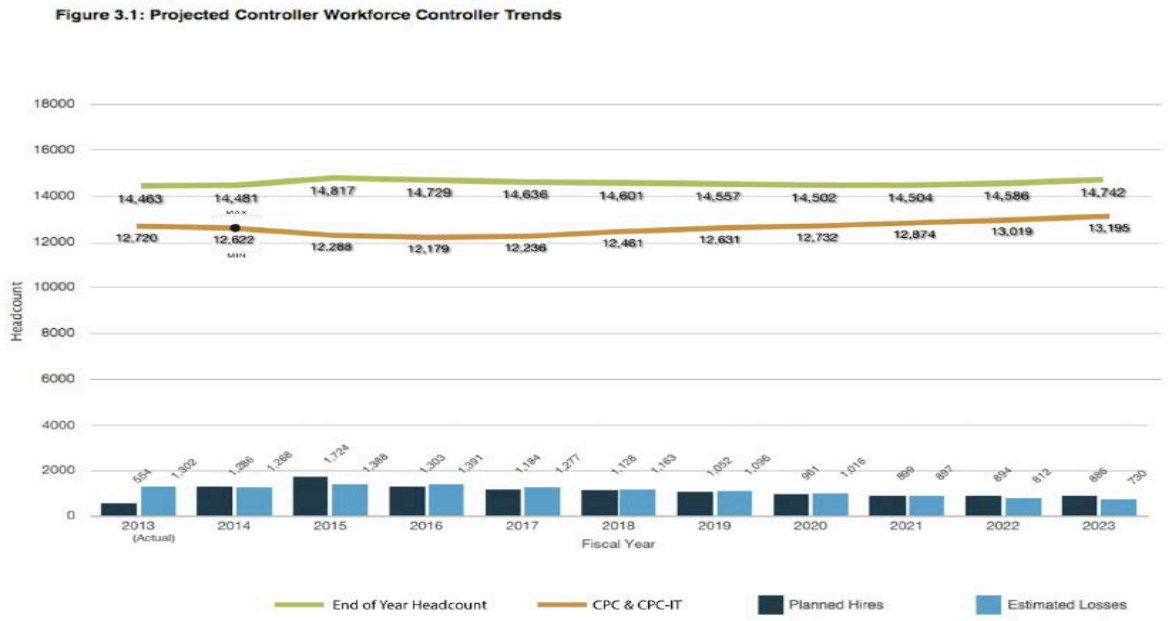
Note: Annual hires and losses are a relatively small proportion of the total controller workforce.

2013-2022:



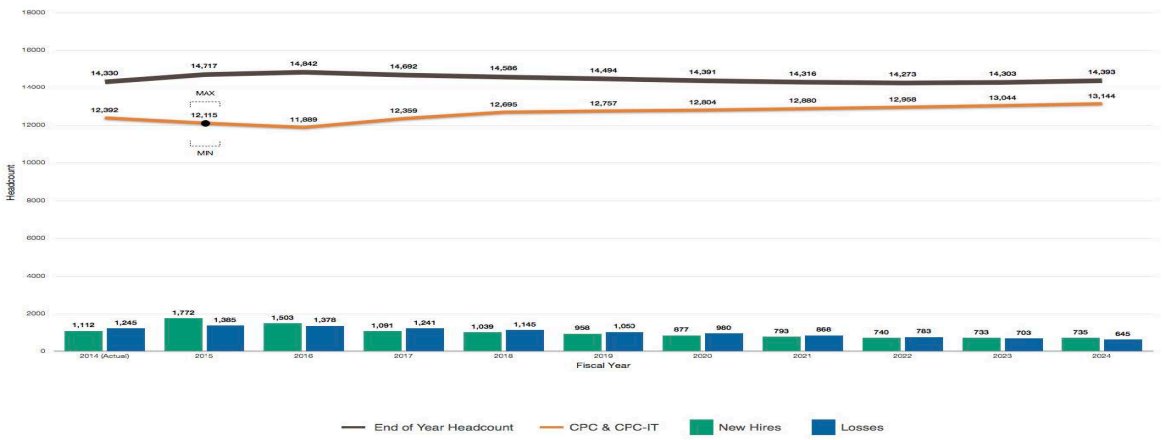
Note: Annual hires and losses are a relatively small proportion of the total controller workforce. Forecast does not include the effects of sequestration.

2014-2023:



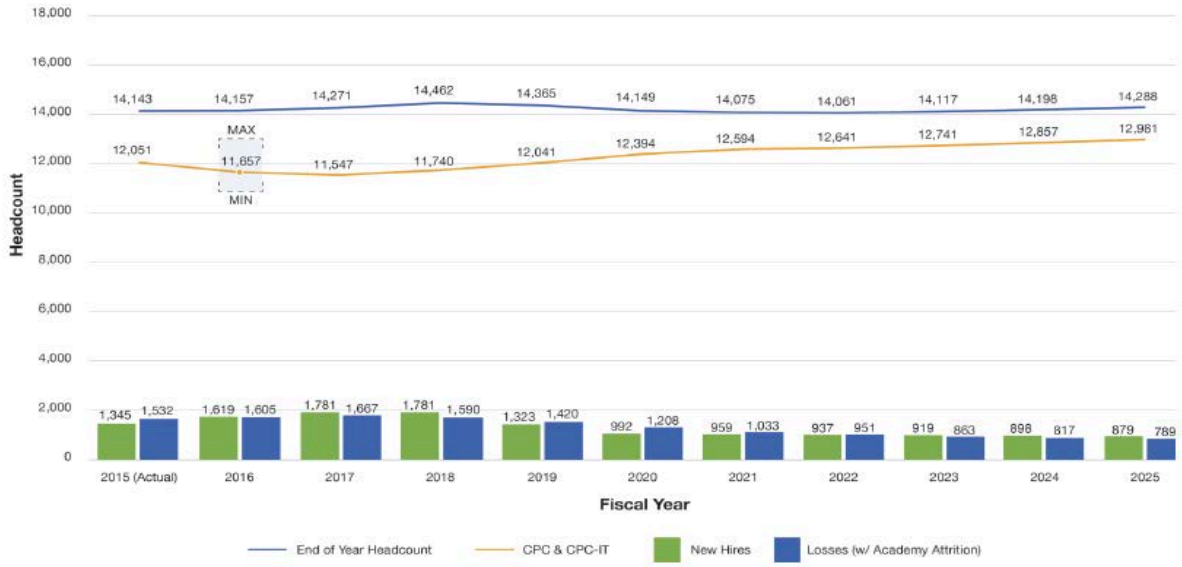
2015-2024:

Figure 3.1: Projected Controller Workforce Trends



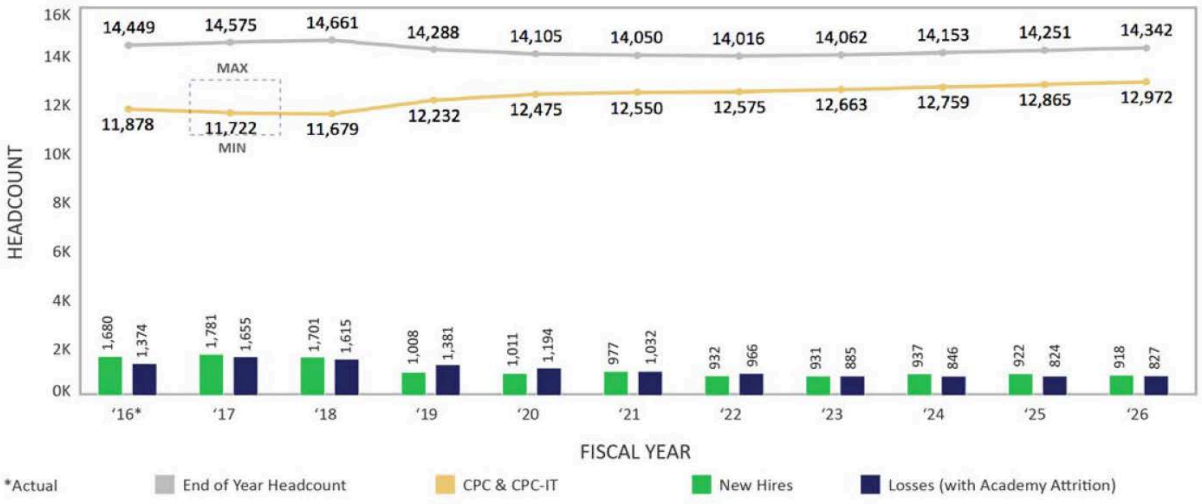
2016-2025:

FIGURE 3.1 PROJECTED CONTROLLER TRENDS



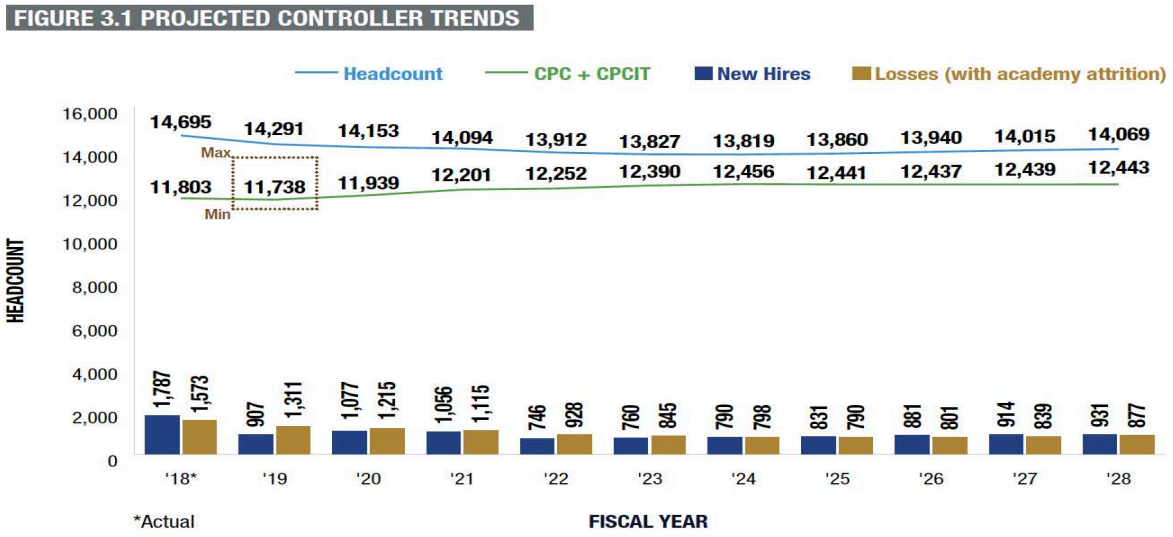
2017-2026:

FIGURE 3.1 - Projected Controller Trends

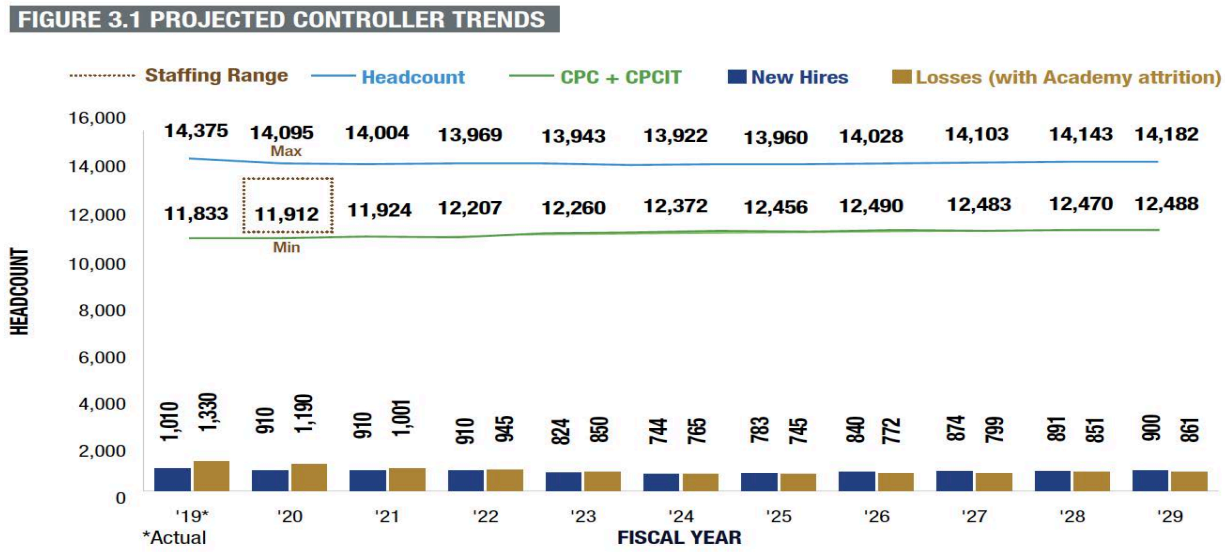


2018-2027:

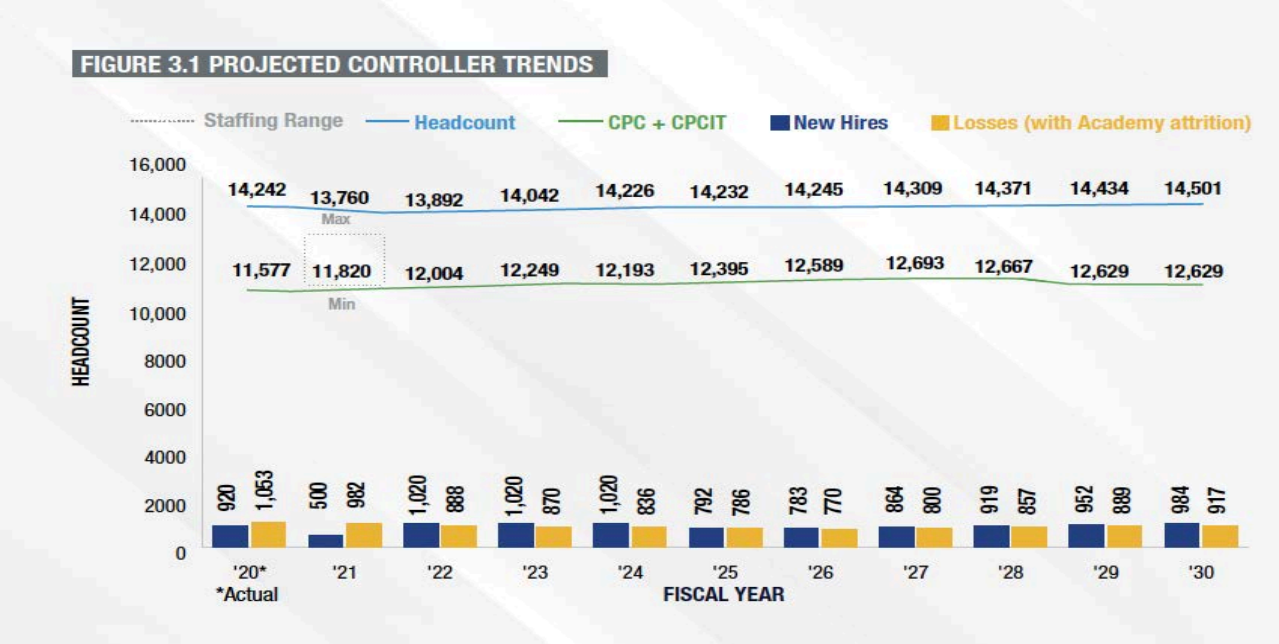
2019-2028:



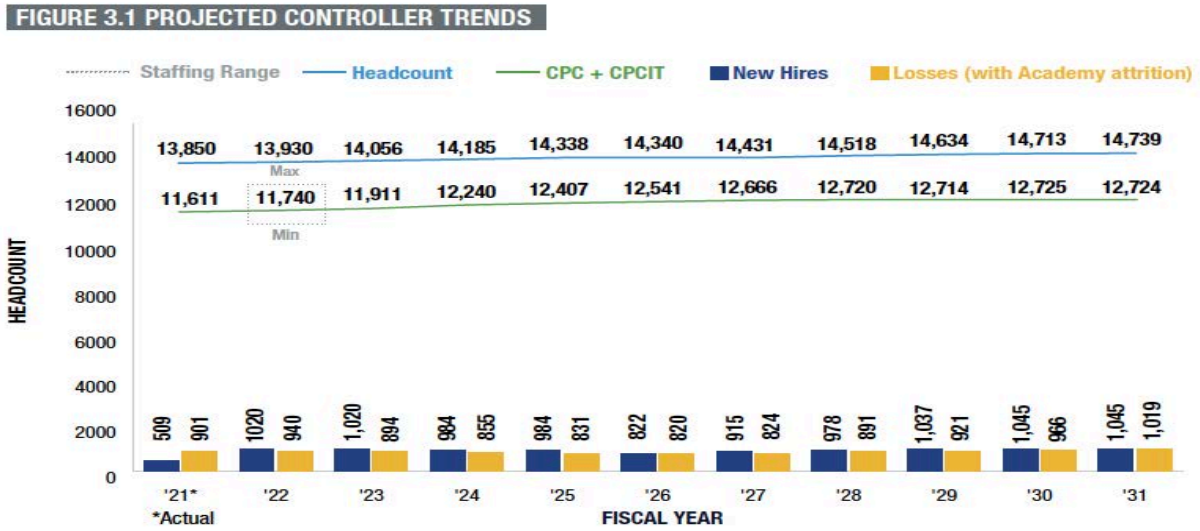
2020-2029:



2021-2030:



2022-2031:



2023-2032: