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The Airline Pilot Shortage: A Result of Age Discrimination or Excessive Training Requirements?

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THE AIRLINE PILOT SHORTAGE: A RESULT OF AGE DISCRIMINATION OR EXCESSIVE TRAINING REQUIREMENTS?

KATHERINE HANCOCK*

ABSTRACT

In its relatively short history, public air travel has seen its fair share of airline pilot shortages. Before the COVID-19 pandemic, the industry was facing yet another. There was virtually no part of the airline industry untouched by the pandemic, and pilot supply was no exception. As an attempt to mitigate profit loss, airlines offered pilots early retirement packages. When air travel returned to pre-pandemic numbers earlier than expected, airlines struggled to fill cockpit seats, which was a major factor in causing the extensive flight cancellations and delays in 2022.

Legislators sought to alleviate the issue by raising the federally mandated retirement age. In 2022, a bill was introduced to raise the age to from sixty-five to sixty-seven. The lawmakers behind the bill provided one reason for this change: to relieve the pilot shortage. They blamed the pilot shortage on the demographic; the majority of airline pilots are baby boomers nearing retirement.

There are a few issues with this proposal. The first is the discriminatory nature of the law itself. Raising the age by two years is a step in the right direction, but it is just as arbitrary as the Age Sixty-Five Rule. The second issue is the lack of impact it

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would have on the pilot supply. The two-year increase is not going to achieve the lawmakers' purpose because it does not incentivize pilots to keep working. The third issue is that the proposal does not confront the larger cause of the pilot shortage: the excessive training requirements for pilots to earn their commercial pilot's license.

This Article first examines the legality of the airline pilot age limit and the court challenges it has overcome. It confronts the superfluousness of the mandatory retirement age, arguing that an age limit is superseded by the regular aircraft simulator trainings and medical examinations airline pilots are required to pass in order to keep flying. This Article then critiques the 1,500 Hour Rule and assesses other causes of the pilot shortage. Finally, it argues that there are other, better ways to bolster the pilot supply in the United States.

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I. INTRODUCTION

IN THE EARLY DAYS of the COVID-19 pandemic, the world experienced “the sharpest traffic decline in aviation history.”¹ The overall number of passengers in the U.S. dropped a staggering ninety-six percent.² International travel was virtually nonexistent with a ninety-nine percent drop.³ The only comparable event was World War II when more than half of commercial aircraft were taken out of service to be used in military efforts.⁴ In spring 2020, airlines had to scramble to stay afloat and one of the methods of mitigating profit loss was to offer early retire-

¹ *2020 Worst Year in History for Air Travel Demand*, INT’L AIR TRANSP. ASS’N (Feb. 3, 2021), <https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-02-03-02/> [<https://perma.cc/manage/create/?folder=9457>]. In April 2020, carriers in the U.S. reported operating 194,390 total flights. The last time it was even close to that was in February 1994 with 370,027 flights. For reference, there were 668,259 flights in April 2019. Since 1994 held the previous record for all-time low monthly air travel, that means 9/11 did not even dip below that record. *Air Travel Consumer Report: April 2020 Numbers*, U.S. DEP’T OF TRANSP. (June 26, 2020), <https://www.transportation.gov/briefing-room/air-travel-consumer-report-april-2020-numbers> [<https://perma.cc/JWR7-3CUC>]. Not only was air travel at a record low in the early days of the pandemic, it continued for months. U.S. airlines operated 40% less flights in 2020 than they did in 2019. The total for the year was 4.7 million, the lowest on record since the DOT began recording these numbers in 1987. Horus Alas, *Air Travel in 2020 Dropped to Lowest Level on Record: Report*, U.S. NEWS & WORLD REP. (Feb. 25, 2021, 5:45 PM), <https://www.usnews.com/news/articles/2021-02-25/air-travel-in-2020-dropped-to-lowest-level-on-record-report>.

² The drop in passengers refers to the difference between April 2019 and April 2020. *Preliminary Air Traffic Data, April 2020: 96% Reduction in U.S. Airline Passengers from 2019*, BUREAU OF TRANSP. STAT. (June 10, 2020), <https://www.bts.gov/newsroom/preliminary-air-traffic-data-april-2020-96-reduction-us-airline-passengers-2019> [<https://perma.cc/K6H9-N2NA>].

³ *Id.* Record low air travel means record financial loss. The global aviation industry suffered a loss of \$370 billion due to the pandemic. *Air Travel Down 60 Per Cent, as Airline Industry Losses Top \$370 billion: ICAO*, UN NEWS (Jan. 15, 2021), <https://news.un.org/en/story/2021/01/1082302> [<https://perma.cc/42US-P3Z2>].

⁴ Specifically, “two hundred of the nation’s 360 airliners . . . were drafted for the war effort . . .” Also, airline pilots and flight crew joined their military counterparts. Bob van der Linden, *Air Transport Command and the Airlines During World War II*, SMITHSONIAN NAT’L AIR AND SPACE MUSEUM (June 26, 2020), <https://airandspace.si.edu/stories/editorial/air-transport-command-and-airlines-during-world-war-ii-1> [<https://perma.cc/E6GJ-6MBT>].

ment packages to employees, including pilots.⁵ Delta Air Lines saw more than 2,230 of its 14,000 pilots sign up for early retirement by July 2020.⁶ Air travel began to pick up, though, and by March 2022, total air traffic was already back up to about ninety-six percent in North America and seventy-six percent internationally compared to March 2021. Once air travel started to recover and got closer to pre-pandemic numbers, those empty cockpit seats had to be filled again.⁷ Domestic capacity⁸ was expected to be within one or two percent of the 2019 volume by the end of 2022.⁹ Commercial aviation has seen multiple pilot shortages over the years,¹⁰ and in the months following the pandemic recovery, it has faced yet another,¹¹ although the major North American pilot union, Air Line Pilots Association, Int'l (ALPA), denies such a shortage.¹² Congressmen put forth a bill in 2022 that they hope will relieve the pilot shortage.¹³ Cur-

⁵ See Leslie Josephs, *A Severe Pilot Shortage in the U.S. Leaves Airlines Scrambling for Solutions*, CNBC, (May 16, 2022, 8:50 PM) <https://www.cnbc.com/2022/05/15/us-pilot-shortage-forces-airlines-to-cut-flights-scramble-for-solutions.html> [https://perma.cc/5NN6-MASN] (Apr. 10, 2022, 11:27 AM) [hereinafter Josephs].

⁶ Out of the then-total 90,000 employees at Delta, roughly 17,000 took buyouts or early retirement packages when the pandemic hit. Kelly Yamanouchi, *More than 2,000 Delta Pilots Sign up for Early Retirement*, THE ATLANTA J.-CONST.: ATLANTA AIRPORT BLOG (July 20, 2020), <https://www.ajc.com/news/business/more-than-2000-delta-pilots-sign-up-for-early-retirement/GQI3IBYTVJBKJNCGTE7QD63E UU/> [https://perma.cc/57E7-D82A]. U.S. carriers offered retirement packages for its older pilots in 2020 ranging from the maximums of \$715,000 to \$982,000 cash plus benefits. The catch was that if the company did not stay in business, the pilot would not receive the full retirement package. Dan Reed, *Stay Or Go? Older Pilots' Decisions On Early-Out Offers Will Impact The Futures Of Thousands Of Their Colleagues And Their Airlines*, FORBES (July 14, 2020, 6:00 AM), <https://www.forbes.com/sites/danielreed/2020/07/14/stay-or-go-older-pilots-decisions-on-early-out-offers-will-impact-the-futures-of-thousands-of-their-colleagues-their-airlines/?sh=1901dbb62fe6> [https://perma.cc/BA37-AKCP].

⁷ Josephs, *supra* note 5.

⁸ Domestic capacity refers to the number of scheduled airline seats. See *Global Total Seats (Domestic + International)*, OAG, <https://www.oag.com/coronavirus-airline-schedules-data> [https://perma.cc/2K7X-H9SX].

⁹ *Id.*

¹⁰ Marc Leroux-Parra, *A Terminal Profession: The Pilot Shortage Amid an Aviation Boom*, HARVARD INT'L REV. (May 24, 2019, 1:55 PM), <https://hir.harvard.edu/a-terminal-profession-the-pilot-shortage-amid-an-aviation-boom/> [https://perma.cc/46V6-5BS8].

¹¹ Josephs, *supra* note 5.

¹² ALPA's argument is discussed in the Pilot Pipeline Problem section of this Article. See *infra* Part IV.

¹³ Press Release, Lindsey Graham, U.S. Senator, Senators' Legislation Addresses Pilot Shortage, (July 25, 2022), <https://www.lgraham.senate.gov/public/>

rently, the upper age limit for pilots¹⁴ in the U.S. mirrors the international standard,¹⁵ which is age sixty-five.¹⁶ The new bill proposes raising the age to sixty-seven.¹⁷ Because the international standard is still sixty-five,¹⁸ legislators had to work around that discrepancy by only applying the new rule to domestic routes.¹⁹

This Article will discuss the legality of mandatory retirement and the challenges pilots have made over the years to the airline pilot age limit. It will illuminate why the many layers of safety in commercial aviation negate the need for a mandatory retirement age—an arbitrary and discriminatory rule that adds little value to aviation safety. This Article will then evaluate the Let Experienced Pilots Fly Act in regards to the discrepancy with the international rule, which is still sixty-five. It will explain why raising the age limit in the U.S. prior to an international age limit increase is neither realistic nor a wise decision. It will address the purpose the supporting legislators gave for the bill: to relieve the pilot shortage. It will examine the pilot shortage and its causes, and ultimately argue that raising the retirement age would not affect pilot supply. Finally, it will provide alternatives to mitigating the pilot shortage, and explain why lowering the training requirements for airline pilots would be the most effective method while still maintaining high safety standards.

index.cfm/press-releases?ID=3DAF9D27-76C0-4370-B958-4FD90773169A [https://perma.cc/URW5-G3FQ].

¹⁴ “No pilot may serve as a pilot in operations under [Part 121] if that person has reached his or her 65th birthday.” 14 C.F.R. § 121.383 (2018). Part 121 governs the operations of air carriers. 14 C.F.R. § 121.1 (2007). It does not apply to pilots who fly for other types of operations such as charters or corporate flights.

¹⁵ Int’l Civil Aviation Org. [ICAO], Personnel Licensing, Annex 1 to the Convention on International Civil Aviation § 2.1.10 (14th ed. 2022) [hereinafter Annex 1].

¹⁶ 14 C.F.R. § 121.383 (2018).

¹⁷ *Id.*

¹⁸ Annex 1, *supra* note 15.

¹⁹ “In this section, the term ‘covered operations’ means operations under part 121 of title 14, Code of Federal Regulations, unless the operation takes place in— (1) the territorial airspace of a foreign country where such operations are prohibited by the foreign country; or (2) international airspace where such operations are not in compliance with the Annexes to the Convention on International Civil Aviation.” Let Experienced Pilots Fly Act, S. 4607, 117th Cong. (2022).

II. AGE DISCRIMINATION CHALLENGES TO MANDATORY RETIREMENT

Generally, mandatory retirement is banned under the Age Discrimination in Employment Act of 1967 (ADEA).²⁰ However, a bona fide occupational qualification (BFOQ)²¹ exempts certain occupations from that ban.²² As long as the BFOQ is “reasonably necessary to the normal operation of the particular business,” employers may discriminate based on age.²³ Most of the jobs that have a permissible mandatory retirement under the ADEA are in public safety, such as firefighting and law enforcement.²⁴ The airline pilot occupation is among them.²⁵

A. AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1968

For the airline pilots who have used the ADEA as a basis to challenge the pilot age limit in court, it fell short. A group of pilots filed such a claim in *Professional Pilots Federation v. FAA*²⁶ and the Federal Aviation Administration (FAA) successfully argued that the ADEA applies to employers, not regulators.²⁷ In *Coupe v. Federal Express Corp.*,²⁸ the Sixth Circuit observed that the pilot age limit passed the ADEA BFOQ two-prong test.²⁹ It was “reasonably necessary to the essence of the business”³⁰ and “premised on the impossibility or impracticality of determining, on an individualized basis, whether a particular pilot’s age renders him unable to perform safely and effectively.”³¹ An additional requirement for employers is the EEOC regulation that “requires that there be ‘no acceptable alternative [to an age limit] which would better advance [the safety rationale] or

²⁰ 29 U.S.C. §§ 621–34.

²¹ 29 U.S.C. § 623(f)(1).

²² Sharona Hoffman, *Cognitive Decline and the Workplace*, 57 WAKE FOREST L. REV. 115, 138 (2022).

²³ 29 U.S.C. § 623(f)(1).

²⁴ Hoffman, *supra* note 22, at 138.

²⁵ 45B AM. JUR. 2D *Job Discrimination* § 894 (2022) (“The regulation prohibiting pilots from flying commercial aircraft past a specified age is a bona fide occupational qualification (BFOQ) for the job; thus, an airline does not violate the Age Discrimination in Employment Act (ADEA) when such pilots are discharged.”).

²⁶ *Pro. Pilots Fed’n v. FAA*, 118 F.3d 758, 760 (D.C. Cir. 1997).

²⁷ *Id.* at 763.

²⁸ *Coupe v. Fed. Exp. Corp.*, 121 F.3d 1022, 1025 (6th Cir. 1997).

²⁹ *See id.*

³⁰ *Id.* (quoting 29 C.F.R. § 1625.6(b)(1)).

³¹ *Id.* at 1025.

equally advance it with less discriminatory impact.’”³² The FAA satisfied that requirement by concluding that the medical examinations and simulator testing were not as safe as the age limit.³³

B. EQUAL PROTECTION CLAUSE

If the police officer in *Massachusetts Board of Retirement v. Murgia* had based his challenge on the ADEA, it may have turned out differently.³⁴ Instead, he used a constitutional argument based in the Equal Protection Clause³⁵ for his challenge to the state-mandated retirement age for state police officers in *Murgia*.³⁶ The U.S. Supreme Court applied the rational basis test instead of strict scrutiny because older citizens are not a suspect class and government employment was not a fundamental right.³⁷ The Court decided that the retirement age law was rationally related to the state’s interest in protecting the public³⁸ and it did not deny the police officer’s right to equal protection of the laws.³⁹

C. FAA EXEMPTION

A final method of circumventing the age limit is to file an exemption.⁴⁰ “[T]he Federal Aviation Act provides for the granting of exemptions to any regulations promulgated by the agency”⁴¹ A group of pilots in *Yetman v. Garvey* filed such petitions with medical records and hundreds of exhibits which “tended to attack the basis of the Age Sixty Rule.”⁴² They also had the rec-

³² *Id.* at 1024 (quoting 29 C.F.R. § 1625.6(b)).

³³ *Id.* at 1025-26 (“The FAA has considered alternatives to the age 60 rule, such as performance testing and medical certification, and has rejected each alternative as less safe than the age 60 rule. In the agency’s opinion, none of these options can adequately detect certain risks associated with aging. 60 Fed.Reg. 65977, 65983-84 (1995).”).

³⁴ *Massachusetts Bd. of Ret. v. Murgia*, 427 U.S. 307, 309 (1976).

³⁵ U.S. CONST. amend. XIV, § 1, cl. 3 (“[N]or shall any state deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.”).

³⁶ *Murgia*, 427 U.S. at 309.

³⁷ *Id.* at 312-13.

³⁸ *Id.* at 314.

³⁹ *Id.* at 317.

⁴⁰ See *Yetman v. Garvey*, 261 F.3d 664, 668 (7th Cir. 2001).

⁴¹ *Id.*

⁴² *Id.*

ommendation of a panel of renowned physicians.⁴³ Despite all of this evidence, the FAA denied the request.⁴⁴

The Seventh Circuit chose not to overturn the denial because “the FAA has appropriately considered the evidence, and provided sufficient justifications for its decisions.”⁴⁵ However, it noted that “an argument could be made that the FAA has examined these studies and protocols only to satisfy the burden which we have placed on the agency.”⁴⁶ Ultimately, the court could not overturn the denial because of the FAA’s discretionary power.⁴⁷

D. PROFESSIONS LACKING MANDATORY RETIREMENT

There are a few occupations that have been critiqued for not having an age limit: judges, attorneys, and physicians.⁴⁸ The critique centers around cognitive decline, rather than physical, “likely because of the competencies these professions require.”⁴⁹ There is little stopping these workers from continuing their careers even after they start experiencing memory lapses or, at worst, Alzheimer’s symptoms.⁵⁰

For federal judges, there is a process to complain if a person believes a judge is not mentally capable of doing their job.⁵¹ However, it’s very rare that any formal action is actually taken.⁵² Neither the federal nor state judicial systems provide for cognitive health assessments.⁵³

If a lawyer “knows that another lawyer has committed a violation of the Rules of Professional Conduct that raises a substantial question as to that lawyer’s . . . fitness as a lawyer . . .,” they must inform the appropriate authorities.⁵⁴ That is the extent of accountability for attorneys in this context.⁵⁵

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.* at 679.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ Hoffman, *supra* note 22, at 131.

⁴⁹ *Id.*

⁵⁰ *See id.* at 131-36.

⁵¹ *Id.* at 133.

⁵² *Id.*

⁵³ *Id.* at 134.

⁵⁴ MODEL RULES OF PRO. CONDUCT r. 8.3(a) (AM. BAR ASS’N 1983).

⁵⁵ *See Hoffman, supra* note 22, at 131-32.

In the medical field, there is serious concern regarding cognitive impairment in aging physicians.⁵⁶ Some healthcare providers have made efforts to mandate cognitive testing in older physicians, but there is no federal- or state-mandated testing in place.⁵⁷ It is a general requirement for physicians to pass their re-certification exams every ten years, in addition to keeping up with continuing education.⁵⁸ In contrast, airline pilots must pass an FAA-mandated physical exam every six or twelve months, depending on age, in addition to rigorous simulator trainings every six months.⁵⁹

Despite being upheld by the courts, the mandatory retirement age for airline pilots should continue to be challenged because public safety is sufficiently guaranteed by the layers of testing and other rules already in place. Because the age limit is superfluous, it does not justify the discriminatory effect. Increasing the age to sixty-seven is a step in the right direction, but it is no less discriminatory than an age sixty-five limit. In the following sections, I will discuss the origin and critiques of the law, the reason legislators are calling to raise the age limit, and why doing so would not only be unnecessarily discriminatory, but it would also have little to no effect on improving pilot supply in this country.

III. THE AGE SIXTY-FIVE RULE

A. HISTORY OF THE RULE

In 1958, after just a few decades of commercial aviation, the agency we know today as the Federal Aviation Administration was created. The FAA is the administrative body for commercial aviation in the United States.⁶⁰ The agency's mission "is to provide the safest, most efficient aerospace system in the world."⁶¹ In the context of airmen regulations, the FAA also claims it

⁵⁶ *Id.* at 134.

⁵⁷ *Id.* at 134-36.

⁵⁸ Lenny Bernstein, *Doctors' Group Will Scrap 10-Year Re-Certification Exam*, WASHINGTON POST (Sept. 9, 2015), https://www.washingtonpost.com/national/health-science/doctors-group-will-scrap-10-year-re-certification-exam/2015/09/09/23154a48-571f-11e5-abe9-27d53f250b11_story.html [<https://perma.cc/YA9N-PUBF>].

⁵⁹ These topics are discussed in more detail in the section titled "Medicals, Simulators, and the Two-Pilot Cockpit" in this Article. See *infra* Section III. B. 2.

⁶⁰ See *About FAA*, FED. AVIATION ADMIN., <https://www.faa.gov/about> [<https://perma.cc/46R7-T6P6>].

⁶¹ *Id.*

keeps the pilots' interests in mind.⁶² In 1959, the year after its creation, the FAA implemented the rule requiring airline pilots to retire at age sixty.⁶³ At that time, the industry was still so new that no active airline pilot had reached their sixtieth birthday yet.⁶⁴ It was also a time when the average life expectancy was around seventy,⁶⁵ as compared to seventy-nine in 2019.⁶⁶

The FAA justified this age limit with assertions that it was unsafe for pilots to fly after that age due to a higher likelihood of health issues that could cause incapacitation in flight.⁶⁷ However, there is evidence that this rule was actually politically motivated.⁶⁸ Regardless of its origins, because this was a safety-based regulation, no court ever struck it down.⁶⁹ There were many challenges to the age limit in the forty-eight years before it was increased to sixty-five in 2007.⁷⁰ But courts were not comfortable

⁶² Kathleen Beatrice Barklow, *Rethinking the Age Sixty Mandatory Retirement Rule: A Look at the Newest Movement*, 60 J. AIR L. & COM. 329, 333 (1994).

⁶³ Geneve Dubois, *The Age 60 Rule - It Is Time to Defeat It*, 70 J. AIR L. & COM. 319, 320 (2005).

⁶⁴ *Id.* at 325.

⁶⁵ Steven H. Woolf & Heidi Schoomaker, *Life Expectancy and Mortality Rates in the United States, 1959-2017*, NAT'L LIBR. OF MED. (Nov. 26, 2019), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7146991/> [<https://perma.cc/6326-XKMF>] ("Between 1959 and 2016, US life expectancy increased by almost 10 years, from 69.9 years in 1959 to 78.9 years in 2016 . . .").

⁶⁶ Roni Caryn Rabin, *U.S. Life Expectancy Falls Again in 'Historic' Setback*, N.Y. TIMES (Aug. 31, 2022), <https://www.nytimes.com/2022/08/31/health/life-expectancy-covid-pandemic.html> [<https://perma.cc/9VBU-3PT9>].

⁶⁷ The FAA cited four reasons for the rule. "First, the process of aging involves a 'progressive deterioration of certain important physiological and psychological functions,' resulting largely from the degenerative process of arteriosclerosis. Second, the effect of the aging process cannot be determined on an individual basis because each person is affected by the aging process to different degrees at the same point in life. Third, degeneration as a result of the aging process occurs at a faster rate the older one becomes. Finally, the result of age degeneration is most often sudden incapacity, disabling an individual without prior warnings or symptoms." R. Michael Kasperzak, Jr., Comment, *Mandatory Retirement of Airline Pilots: An Analysis of the FAA's Age 60 Retirement Rule*, 33 HASTINGS L. J. 241, 244-45 (1981).

⁶⁸ The CEO of American Airlines, C. R. Smith, was friends with the first FAA Administrator Elwood Quesada. Smith wanted to save money by laying off older pilots because younger pilots were cheaper to train. It has been suggested that Smith asked Quesada to enact a mandatory pilot retirement age as a favor to a friend. Dubois, *supra* note 63, at 329-30.

⁶⁹ Nicholas D. O'Connor, *Too Experienced for the Flight Deck - Why the Age 65 Rule is Not Enough*, 17 ELDER L.J. 375, 376 (2009) ("From 1959 until 2007, airline pilots were forced to retire at age sixty. During that period, the Age 60 Rule was rigorously challenged, but the federal courts consistently upheld it").

⁷⁰ *See id.* at 378-85.

questioning the FAA's authority, especially when it came to safety.⁷¹ Every constitutional, statutory, and administrative argument was lost in court.⁷² Because the FAA has chosen not to listen to courts' arguments against the rule, it is up to Congress to make the change.⁷³

In 2004, three years after September 11, there was a senate committee hearing that challenged the Age Sixty Rule.⁷⁴ The idea was that it was outdated and people were living and working much longer than they were in 1959.⁷⁵ The law did not change until after the International Civil Aviation Organization (ICAO)⁷⁶ increased its age limit to sixty-five in 2006.⁷⁷ The next year, the U.S. followed the ICAO's change with the Fair Treatment for Experienced Pilots Act⁷⁸ (FTEPA) which raised the age to sixty-five.⁷⁹ The reasoning was that there was no medical evidence that it was unsafe for a pilot aged sixty to sixty-four to fly and "there were safety precautions already in place to prevent accidents in case of incapacitation."⁸⁰

B. THE LET EXPERIENCED PILOTS FLY ACT

In July 2022, Congressmen from states that have smaller populations such as Iowa and Wyoming introduced the Let Experienced Pilots Fly Act (LEPFA) which would raise the pilot age limit to sixty-seven for domestic routes.⁸¹ These states have

⁷¹ *Id.* at 384–85.

⁷² *See id.* at 378–85.

⁷³ *Id.* at 385.

⁷⁴ *A Fresh Look At Mandatory Retirements: Do They Still Make Sense?: Hearing Before the S. Special Comm. on Aging*, 108th Cong. 32 (2004) [hereinafter *Hearing*].

⁷⁵ *Id.*

⁷⁶ ICAO is a United Nations specialized agency that "serve[s] as the global forum of States for international civil aviation." *Vision and Mission*, ICAO, <https://www.icao.int/about-icao/Council/Pages/vision-and-mission.aspx> [<https://perma.cc/JU5L-K5TR>].

⁷⁷ Steve Scott, *U.S. Airline Pilot Retirement Age Raised to 65*, *DEF. DAILY* (Dec. 16, 2007) <https://www.defensedaily.com/u-s-airline-pilot-retirement-age-raised-to-65/uncategorized/> [<https://perma.cc/4ZBB-LS6S>].

⁷⁸ 49 U.S.C. § 44729, *amended by* Consolidated Appropriations Act of 2023, Pub. L. No. 117-328, 136 Stat. 4459.

⁷⁹ Like the ICAO standard, the FTEPA allows pilots to fly as the pilot-in-command until age sixty-five on the condition that there is another pilot in the flight deck under sixty. *Id.*

⁸⁰ Press Release, John Thune, U.S. Senator, THUNE, *Colleagues Introduce Legislation to Address Pilot Shortage*, (July 25, 2022), <https://www.thune.senate.gov/public/index.cfm/2022/7/thune-colleagues-introduce-legislation-to-address-pilot-shortage> [<https://perma.cc/6RT7-PN5W>].

⁸¹ Let Experienced Pilots Fly Act, S. 4607, 117th Cong. (2022).

smaller air travel markets, so the pilot shortage has caused airlines to end their services to those markets.⁸² When airplanes don't fly to those regions, they are cut off from the rest of the country and the world economy.⁸³ It's not just the smaller markets that are affected; the pilot shortage can inconvenience any American traveling the skies because it results in system-wide disruptions.⁸⁴

Although the LEPFA seeks to lighten the burden of a mandatory retirement age by raising the number, it is still subject to the same criticism of the Age Sixty-Five Rule. The FAA-mandated medical exams and simulator training arguably supersede a mandatory retirement age. Another consideration is that if the age were raised again, the majority of airline pilots would be inconvenienced by a stagnation in seniority. A new criticism to pilot age law involves the international component. If the age limit is raised above sixty-five before the ICAO raises its age limit, which is what the LEPFA proposes, it would be the first time in history that the U.S. age limit was higher than the ICAO standard. But first, I will address the "the rule's greatest criticism"⁸⁵—its arbitrariness.

1. Arbitrariness

From the moment the rule was enacted in 1959, it was challenged on its arbitrariness.⁸⁶ The argument is straightforward: everyone ages differently and there is no magic number for when a person's age makes them unfit to fly.⁸⁷ In the 1985 case *Western Air Lines, Inc. v. Criswell*, the Supreme Court quotes a House Committee on Education and Labor report that finds rules such as these problematic: "Increasingly, it is being recognized that mandatory retirement based solely upon age is arbitrary and that chronological age alone is a poor indicator of ability to perform a job."⁸⁸

Although arbitrariness is a weakness of mandatory retirement ages, it is not always avoidable, especially in a job such as flying a

⁸² Thune, *supra* note 80.

⁸³ *Id.*

⁸⁴ Heather Murphy, *Understanding the Summer Air Travel Mess*, N.Y. TIMES (July 1, 2022), <https://www.nytimes.com/2022/07/01/travel/summer-travel-flight-delays-cancellations.html> [<https://perma.cc/4QFM-7THL>].

⁸⁵ Barklow, *supra* note 62, at 338.

⁸⁶ *See id.* at 339–340.

⁸⁷ *See id.* at 340.

⁸⁸ *W. Air Lines, Inc. v. Criswell*, 472 U.S. 400, 410 (1985).

passenger jet.⁸⁹ When people's lives are involved, as they are in aviation, sometimes arbitrariness is a necessary evil.⁹⁰ Airline pilots have a unique job: they are responsible for keeping up to 400 people safe while operating a giant machine 35,000 feet in the air.⁹¹ Safety should be the top priority and a pilot's age must be considered.⁹² However, considering that there are rigorous testing and training systems in place to prevent accidents, maybe arbitrariness is just an evil that has no necessity.⁹³

2. *Medicals, Simulators, and the Two-Pilot Cockpit*

The FAA requires every airline pilot to pass highly regulated medical examinations⁹⁴ and flight simulator tests.⁹⁵ The existence of these regulations suggest that they render an age limit superfluous because if the pilot passes these tests, then the pilot should be able to fly—no matter what age.

Pilots of age forty and up must pass a thorough medical examination every six months.⁹⁶ The FAA selects qualified physicians as its Aviation Medical Examiners to conduct these extensive exams.⁹⁷ They test a pilot's vision, hearing, and equilibrium as well as mental, neurological, and cardiovascular statuses.⁹⁸ They check for any general medical conditions that may limit a person's ability to fly safely.⁹⁹ Those aged forty and up must also undergo an annual electrocardiogram as another check for cardiovascular issues.¹⁰⁰

In addition to physical exams, airline pilots must pass simulator tests every six months which is also highly regulated by the

⁸⁹ Barklow, *supra* note 62, at 346.

⁹⁰ *Id.*

⁹¹ Sumit Singh, *Why Airlines Don't Usually Fly At 43,000 Feet Unless Empty*, SIMPLE FLYING (Oct. 4, 2019), <https://simpleflying.com/airliners-flying-43000-feet/> [<https://perma.cc/8CXJ-BG9A>].

⁹² Barklow, *supra* note 62, at 331.

⁹³ *Id.* at 341.

⁹⁴ See 14 C.F.R. §§ 67.101–115 (1996).

⁹⁵ See 14 C.F.R. § 60.15 (2022).

⁹⁶ Pilots below forty must pass the medical exam every twelve months. *FAA Medical Certificates*, ATP FLIGHT SCHOOL, <https://atpflightschool.com/become-a-pilot/airline-career/faa-medical-certificate.html> [<https://perma.cc/7QXN-XU7P>].

⁹⁷ 14 C.F.R. § 183.11 (2022).

⁹⁸ 14 C.F.R. §§ 67.101–115 (1996).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

FAA.¹⁰¹ At a Senate hearing about the pilot retirement age in 2004, Captain Joseph Eichelkraut, President of the Southwest Airlines Pilots' Association, explained the training requirements: "As a captain, I must demonstrate in semi-annual check rides, complete knowledge of systems and procedures, safe piloting skills, and multi-tasking in advance simulators. There is no greater test of cognitive ability and mental dexterity than these simulator rides."¹⁰² In addition to the scheduled trainings and check rides, pilots are subject to random check rides by FAA inspectors and airline employees.¹⁰³ At Southwest, when the Age Sixty Rule was still in place, simulator failure rates were at their lowest in the age group approaching sixty.¹⁰⁴ Captain Eichelkraut opined that piloting an aircraft is not so physically demanding as it is mentally demanding.¹⁰⁵ It "require[s] management skills and sound judgment. These are talents that I have found come with age and experience."¹⁰⁶ Instead of buying into the idea that the older the pilot is, the less safe it is for them to fly, perhaps the opposite is true. Regardless of age, because this is a skill-based occupation, more experience means safer flying.

Another very important consideration for this discussion is that, by law, there must be at least two pilots in the flight deck.¹⁰⁷ Not only is this a security measure, it is also one of the many redundancies in place to ensure safety. If one of the pilots becomes incapacitated, there is always at least one more pilot available to take over.¹⁰⁸ In fact, "there has never been a U.S. air carrier accident due to medical causes."¹⁰⁹ The probability of "incapacitation due to cardiovascular disease is only 1 event in more than 20 million flight hours."¹¹⁰ That equates to one episode for every 8.3 billion flight hours, or for every 400 years.¹¹¹

¹⁰¹ See 14 C.F.R. § 60 (2022); *Hearing, supra* note 74, at 36 (statement of Captain Joseph Eichelkraut, President, Southwest Airlines Pilots' Association).

¹⁰² *Hearing, supra* note 74, at 36.

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 37.

¹⁰⁸ *Id.* at 32.

¹⁰⁹ *Id.*

¹¹⁰ Dubois, *supra* note 63, at 336.

¹¹¹ *Id.*

3. Seniority Stagnation

Stagnation happens when there is no movement in seniority within the pilot workforce at an airline.¹¹² That is a huge concern to junior pilots.¹¹³ Upward mobility for flight deck crew at airlines halted in 2007 when the age was raised to sixty-five¹¹⁴ and it will happen again if the age is raised by two more years.

Seniority is everything in the airline crew member's job. It determines their entire work life: the type of aircraft they fly, their position of either captain or first officer, the home base they are assigned, the routes they fly, the number of hours they fly per month, vacation time, off-days, etc. Because factors like aircraft type, position, and flight hours determine pay in this hourly wage job, seniority status determines how much income a crew member earns.¹¹⁵ It can be safely assumed that junior pilots do not want to wait two more years before they start earning the senior paycheck, getting the off-days they want, flying to the destinations they want, and so on.¹¹⁶

The major pilot union, ALPA, opposes raising the age to sixty-seven.¹¹⁷ The majority of ALPA members are junior because the majority of airline pilots are junior. So it is not surprising that ALPA wants to appease its majority. It is also understandable that this majority does not want to endure two years of stagnation because it would be frustrating and inconvenient. What is not understandable is the short-sightedness of this objective. The same people who oppose the rule now will benefit from it down the road when they reach that age. The current senior pilots who are approaching age sixty-five want the option to extend their career.¹¹⁸ Once the pilots who are junior today be-

¹¹² Jeff Orkin, *Fair Treatment for Experienced Pilots Act – All Good Things Really Do Come to an End*, 73 J. AIR L. & COM. 579, 596 (2008).

¹¹³ *Id.*

¹¹⁴ *Id.* at 594

¹¹⁵ However, there is a yearly pay raise that usually levels off after twelve years at the airline, which is not affected by seniority. *Id.* at 596–97.

¹¹⁶ *Id.* at 596.

¹¹⁷ ALPA Fact Sheet: Pilot Retirement Age Facts, AIR LINE PILOTS' ASS'N, INT'L, <https://www.alpa.org/-/media/ALPA/Files/pdfs/advocacy/alpa-pilot-supply-retirement-age.pdf?la=EN> [<https://perma.cc/2ETB-TGX4>] [hereinafter *ALPA Fact Sheet*].

¹¹⁸ Jeff Skiles, first officer on the “Miracle on the Hudson” flight, is an example of this age group. The sixty-two-year-old said, “I’m healthy . . . I think of myself as 35. I definitely believe [my career] should extend to 67.” Ted Reed, *Hero Pilot Backs Easy Fix To Pilot Shortage: Just Let Us Fly Past Age 65*, FORBES (Jan. 10, 2022), <https://www.forbes.com/sites/tedreed/2022/01/10/hero-pilot-backs-easy-fix-to->

come senior ten, twenty, or thirty years from now, they will likely take the side that supports raising (or removing) the age limit.

4. *International Routes*

The last consideration of the LEPFA is the discrepancy with the international standard that is still set at age sixty-five.¹¹⁹ The bill states:

“[i]n this section, the term ‘covered operations’ means operations under part 121 of title 14, Code of Federal Regulations, unless the operation takes place in (1) the territorial airspace of a foreign country where such operations are prohibited by the foreign country; or (2) *international airspace where such operations are not in compliance with the Annexes to the Convention on International Civil Aviation*” (emphasis added).¹²⁰

This means that, if the bill is passed as-is, pilots sixty-five and above would only be able to fly domestically.¹²¹ The reason lawmakers included this clause is because if those pilots fly an international route, the U.S. would be out of compliance with an ICAO standard. The 2007 bill increasing the age to sixty-five did not have such a clause because it was not applicable.¹²² At the time the bill was passed, the ICAO had already implemented an Age Sixty-Five Rule,¹²³ so there was no discrepancy to worry about. But because the ICAO has not yet raised its age limit,¹²⁴ the U.S. must work around it.

Falling out of compliance with an ICAO standard would have devastating repercussions. Any country that the U.S. has an air transport agreement with has the power to ban American air carriers from its skies.¹²⁵ This is called blacklisting, and to avoid this, the legislators included the international exception in the LEPFA.¹²⁶

The result of this exception is, for lack of a better word, awkward. Most senior pilots fly internationally because those are the

pilot-shortage-just-let-us-fly-past-age-65/?sh=781a4b6d6052 [https://perma.cc/6M59-MB5N] [hereinafter *Hero*].

¹¹⁹ Annex 1, *supra* note 15.

¹²⁰ Let Experiences Pilots Fly Act, S. 4607, 117th Cong. (2022).

¹²¹ That is, only within U.S. territory. *Id.*

¹²² See 49 U.S.C. § 44729 (2007), amended by Consolidated Appropriations Act of 2023, Pub. L. No. 117-328, 136 Stat. 4459.

¹²³ Annex 1, *supra* note 15.

¹²⁴ *Id.*

¹²⁵ For a detailed discussion in the following section, “The International Age Sixty Five Rule” see *infra* Section III.C.

¹²⁶ Let Experienced Pilots Fly Act, S. 4607, 117th Cong. (2022).

most attractive routes.¹²⁷ The international trips¹²⁸ are the most lucrative because crew members are paid by flight hours,¹²⁹ and those are the longest flights. The type of aircraft also determines a pilot's hourly wage.¹³⁰ The international flights are usually flown on wide-body aircraft which have higher-paying positions than narrow-body aircraft.¹³¹ International trips are also attractive because they're considered easier to work than domestic trips.¹³²

With the new bill, most senior pilots who choose not to retire at sixty-five will have to downgrade to a smaller aircraft and only fly domestic routes unless and until the ICAO (or other countries) changes its rule. If passed, the bill could even keep those pilots off the routes to Canada, Mexico and the Caribbean, which are technically international even though the time in the air could be shorter than an hour. It's an awkward result because those senior pilots will have to essentially swap seats with the junior pilots. The seniors will have to train on a new plane and the juniors will have to do the same.

¹²⁷ John Cox, *Ask the Captain: Why Flying Internationally is a Point of Pride*, USA TODAY (July 17, 2016), <https://www.usatoday.com/story/travel/columnist/cox/2016/07/17/international-pilots> [<https://perma.cc/L3RB-TUZ2>].

¹²⁸ In this context, international trips are long haul flights to Europe, Asia, Africa, and other countries. See *Long-Haul Flights*, ALTERNATIVE AIRLINES, <https://www.alternativeairlines.com/long-haul-flights> [<https://perma.cc/34H7-7MW4>].

¹²⁹ *Demystifying Airline Pilot Pay*, TASA, <https://www.tasanet.com/Knowledge-Center/Articles/ArtMID/477/ArticleID/1251785/Demystifying-Airline-Pilot-Pay> [<https://perma.cc/NC4P-QQM5>].

¹³⁰ *Airline Seniority Explained*, ATP, <https://atpflightschool.com/become-a-pilot/airline-career/airline-seniority-explained.html> [<https://perma.cc/T54R-AJSK>].

¹³¹ Matthew Klint, *Why Do Pilots Who Fly Widebodies Get Paid More?*, LIVE & LET'S FLY (May 15, 2021), <https://liveandletsfly.com/widebodies-captain-paid-more/> [<https://perma.cc/U4RX-J7XL>]. Wide-body aircraft have two aisles and narrow-body aircraft have one. *Narrowbody vs. Widebody Aircraft: What's the Difference?*, Pilot Inst. (April 3, 2023), <https://pilotinstitute.com/narrowbody-vs-widebody-aircraft/> [<https://perma.cc/3L99-GA36>].

¹³² On domestic trips, a crew member could be flying four legs a day. It means longer hours and more boardings, take-offs, and landings. For a three-day domestic trip, a flight crew could work up to twelve legs total. For a three-day international, it's only two legs—one there, and one back. The time of day when the crew reports and releases also makes it easier to commute, especially for those that live far from their base city. On the other hand, some senior pilots prefer flying domestic trips on narrow-body aircraft because some domestic trips are only one or two days long and it means more nights at home. (This explanation comes from my personal experience.) See generally *Flight Attendant Schedule*, FLYING MAG. (Sept. 29, 2022), <https://www.flyingmag.com/guides/flight-attendant-schedule/> [<https://perma.cc/8UMF-5HHM>].

The cost of training must be considered, but any costs associated with this workaround are inevitable. The junior pilots are eventually going to train on the bigger aircraft, so training them is going to happen sooner or later. And if senior pilots are replaced with new hires, there is even more cost because initial training for a new hire is likely more expensive than re-training a senior pilot.

Even though it is an awkward workaround, the pilots that are staying on potentially have decades more experience than the new hires. Furthermore, the issue of swapping seats could be just a temporary inconvenience if the ICAO changes its rule and/or other countries do the same.

C. THE INTERNATIONAL AGE SIXTY-FIVE RULE

The ICAO was created “to insure the safe and orderly growth of international civil aviation throughout the world.”¹³³ A primary way the ICAO achieves this objective is through its Standards and Recommended Practices (SARPs), one of them being the age sixty-five rule.¹³⁴ Compliance with these standards is mandatory.¹³⁵ If a State finds it impracticable to comply,¹³⁶ it must “give immediate notification to the [ICAO] of the differences between its own practice and the international standard.”¹³⁷ The ICAO then immediately notifies the other States of the noncompliance.¹³⁸ Similar to the United Nations, the ICAO does not have enforcement power.¹³⁹ That’s because,

¹³³ International Civil Aviation Organization, Convention on International Civil Aviation art. 44, Dec. 7, 1944 [hereinafter *Chicago Convention*].

¹³⁴ Annex 1, *supra* note 15.

¹³⁵ *Standards and Recommended Practices (SARPS)*, SKYBRARY, <https://skybrary.aero/articles/standards-and-recommended-practices-sarps> [https://perma.cc/E978-6APJ]. Compliance for recommended practices is just highly encouraged. Annex 1, *supra* note 15.

¹³⁶ A State may not be able to implement a SARP “on the basis of insufficient human or financial resources, or their unique geographic or technological characteristics.” Dempsey, *supra* note 145, at 71.

¹³⁷ Chicago Convention, *supra* note 133, art. 38.

¹³⁸ *Id.* Filing a difference is essentially opting out of a SARP. PAUL S. DEMPSEY, PUBLIC INTERNATIONAL AIR LAW 101-02 (2d ed. 2008).

¹³⁹ *About ICAO*, ICAO, <https://www.icao.int/about-icao/Pages/default.aspx> [https://perma.cc/N9RS-HJEQ] (“The stipulations ICAO standards contain never supersede the primacy of national regulatory requirements. It is always the local, national regulations which are enforced in, and by, sovereign states, and which must be legally adhered to by air operators making use of applicable airspace and airports.”).

even in aviation, a field that is international by nature, territorial sovereignty trumps all.¹⁴⁰

Bilateral air transport agreements (BATAs) “have, to some degree, regulated commercial air transportation.”¹⁴¹ Two States enter into an international trade agreement “in which the governmental aviation authorities of two nations establish a regulatory mechanism for the performance of commercial air services between their respective territories and, often, beyond.”¹⁴² Although most States adhere to some common BATA concepts and provisions, they are free to construct an agreement that works for each State and its aviation policies.¹⁴³ These agreements generally include a safety provision that allows either State to restrict the other’s airline operations if one does not maintain an ICAO safety standard.¹⁴⁴ This is called “blacklisting”: banning a delinquent State’s airlines from the other State’s skies. Not only does this cut off the delinquent State from the rest of the world, it has devastating economic effects as well.¹⁴⁵

¹⁴⁰ “Every State has, to the exclusion of all other States, the unilateral and absolute right to permit or deny entry into the area recognized as its territory and similar right to control all movements within such territory.” Dempsey, *supra* note 145, at 43.

¹⁴¹ *Id.* at 669–70.

¹⁴² *Id.* at 669.

¹⁴³ *Id.* at 670.

¹⁴⁴ For example, the U.S.-U.K. Air Transport Agreement of November 2020 states in Article 6: “Either Party may request consultations concerning the safety standards maintained by the other Party relating to aeronautical facilities, aircrews, aircraft, and operation of airlines of that other Party. If, following such consultations, one Party finds that the other Party does not effectively maintain and administer safety standards and requirements in these areas that at least equal the minimum standards that may be established pursuant to [ICAO], the other Party shall be notified of such findings and the steps considered necessary to conform with these minimum standards, and the other Party shall take appropriate corrective action. Each Party reserves the right to *withhold, revoke, suspend, limit, or impose conditions* on the operating authorization or technical permission of an airline or airlines of the other Party in the event the other Party does not take such appropriate corrective action within a reasonable time and to take immediate action, prior to consultations, as to such airline or airlines if the other Party is not maintaining and administering the aforementioned [ICAO] standards and immediate action is essential to prevent further noncompliance.” (emphasis added) *U.S.-UK Air Transport Agreement of November 2020*, U.S. DEPT. OF STATE (Nov. 17, 2020), <https://www.state.gov/u-s-uk-air-transport-agreement-of-november-2020/>.

¹⁴⁵ See PAUL S. DEMPSEY, PUBLIC INTERNATIONAL AIR LAW 101 (2d ed. 2008). Blacklisting is not an uncommon occurrence. The long list of airlines banned from operating within the European Union (as of Feb. 6, 2022) are registered in South America, Africa, Asia, and the Middle East. The EU Air Safety List, EUROPEAN COMMISSION, <https://transport.ec.europa.eu/transport-themes/eu-air-s>

For these reasons, it is paramount for member States to comply with SARPS.

There are only two ways to offset the discrepancy between the new bill and the international age sixty-five rule. The U.S. could push for the change with its voting power within the ICAO and its influence as the leader in global aviation. We could also contract with other States that have higher or nonexistent age limits so that the pilots sixty-five and above could fly to those countries. Because the U.S. is not the only country facing challenges within its air transportation system and there are major States with higher or nonexistent age limits (e.g., Japan,¹⁴⁶ Canada, and Australia¹⁴⁷), increasing the ICAO age limit may be inevitable.

Even though a SARP is not set in stone, and there may be ways to offset the discrepancy between the two rules, the reality is that it is unlikely the U.S. will change any domestic aviation rule without the ICAO making the change first. U.S. Congress had a hearing in 2004 regarding increasing the mandatory pilot retirement age, but no change was made until after the ICAO increased the age in 2006. In 2007, the U.S. finally followed through and increased its domestic law to reflect the international standard. The likelihood that the U.S. will be the first to make a change is low, especially considering the complexity of applying a different pilot age limit to different flight routes. Because the legislators' alleged purpose for increasing the age to

afety-list_en. [https://perma.cc/469C-56JV] (2021). Once an airline proves it meets EU safety standards, it can be removed from the list. DEMPSEY, *supra* note 145, at 99.

¹⁴⁶ See *Pensioners Can be Pilots says Japan as Shortage Sees age limit lifted to 67*, THE GUARDIAN (Apr. 23, 2015), <https://www.theguardian.com/world/2015/apr/23/pensioners-can-be-pilots-says-japan-as-shortage-sees-age-limit-lifted-to-67>. [https://perma.cc/BAP2-6DGL] Marisa Garcia, *What to Know About the Mandatory Pilot Retirement Age*, TRAVEL + LEISURE (June 7, 2018), <https://www.travelandleisure.com/airlines-airports/pilot-retirement-age>. [https://perma.cc/2YBP-TJY7]. Although a European Union Aviation Safety Agency ("EASA") document from a 2019 Annual Scientific Meeting says Japan's age limit is sixty-eight. Dr. Janis Vegers, *Pilots' Age Limits Study*, (May 7, 2019), https://www.icao.int/safety/aviation-medicine/Documents/ASMA-ICAO%20meeting%20-Age%20limits%20Study_c.pdf. [https://perma.cc/3W5M-L3B9].

¹⁴⁷ Other countries with no domestic age limit are New Zealand, Costa Rica, the Russian Federation, Senegal, and Ukraine. See Dr. Anthony Evans, *Upper Age Limits for Pilots*, INT'L CIV. AVIATION ORG. (Apr. 2011), <https://www.icao.int/NACC/Documents/Meetings/2011/AVMED2011/Day01-06-ICAO-Evans.pdf>. [https://perma.cc/PV9L-QB56].

sixty-seven is to mitigate the pilot shortage,¹⁴⁸ the U.S. should think of alternative methods to achieving that purpose that do not involve a departure from the ICAO standards.

IV. THE PILOT PIPELINE PROBLEM

A. ALPA'S DENIAL OF A PILOT SHORTAGE

ALPA is the largest pilot union in the world, representing over 65,000 pilots at forty U.S. and Canadian airlines.¹⁴⁹ The union strictly opposes the new bill.¹⁵⁰ It claims that there is no pilot shortage, citing the FAA and the Bureau of Labor Statistics.¹⁵¹ The union argues that the problems with air travel in 2022 stemmed from airlines' mismanagement of bailout money they received during the pandemic.¹⁵² It blames the widespread delays and cancellations on airlines' poor planning, not on a pilot shortage.¹⁵³ Notably, ALPA fails to point out that the majority of its voting members are junior pilots.

Airlines received \$54 billion in federal grants and financial assistance through the Payroll Support Program (PSP) during the pandemic, which was granted to save the jobs of thousands of pilots, flight attendants, and support staff.¹⁵⁴ ALPA, among others, has criticized U.S. airlines for their poor planning and

¹⁴⁸ See Press Release, Lindsey Graham, Senator, *Senators' Legislation Addresses Pilot Shortage* (July 25, 2022), <https://www.lgraham.senate.gov/public/index.cfm/press-releases?ID=3DAF9D27-76C0-4370-B958-4FD90773169A>. [<https://perma.cc/2BA8-FFWF>].

¹⁴⁹ *About ALPA: What We Do*, AIR LINE PILOTS ASS'N, INT'L, <https://www.alpa.org/about-alpa/what-we-do> (last visited Mar. 24, 2023). [<https://perma.cc/BRL7-E7TM>].

¹⁵⁰ *ALPA Fact Sheet*, *supra* note 117.

¹⁵¹ "There are more certificated pilots than there are pilot jobs, according to FAA and Bureau of Labor statistics." *ALPA Fact Sheet*, *supra* note 117. "In fact, there are currently about 1.5 certificated pilots relative to demand, according to Federal Aviation Administration and Bureau of Labor Statistics data." *More Than Enough Pilots to Meet U.S. Airline Demand: Debunking the Pilot Shortage Myth*, AIR LINE PILOTS ASS'N, INT'L, <https://www.alpa.org/advocacy/pilot-supply> [hereinafter *Pilot Shortage Myth*]. [<https://perma.cc/9B2D-TYRZ>].

¹⁵² See *id.* Joe Kunzler, *ALPA Slams Cancellations Amid Airline Taxpayer Aid, Simple Flying* (May 9, 2022), <https://simpleflying.com/alpa-protests-cancellations-while-airlines-get-taxpayer-aid/>. [<https://perma.cc/PD4V-NXYY>].

¹⁵³ See *Pilot Shortage Myth*, *supra* note 151.

¹⁵⁴ The total bailout was \$63 billion. Passenger airlines received \$54 billion and the rest went to cargo airlines and aviation contractors. See *\$63 Billion to Keep Aviation Workers Employed. Here are the numbers.*, PANDEMIC OVERSIGHT (Mar. 17, 2022), <https://www.pandemicoversight.gov/data-interactive-tools/data-stories/63-billion-keep-aviation-workers-employed-here-are-numbers>. [<https://perma.cc/NUH7-V83D>].

bad management of the bailout money.¹⁵⁵ It claims that, had the airlines planned better for the return of air travel, the U.S. commercial aviation industry would not be in such mayhem.¹⁵⁶ ALPA argues that some airlines “bet against a strong U.S. recovery, and now those airlines’ leaders are trying to blame frontline aviation employees for their bad business decisions by saying they can’t find enough workers.”¹⁵⁷

In December 2021, the Senate Committee on Commerce, Science, and Transportation held a hearing on the exact issues ALPA is arguing.¹⁵⁸ Senators questioned airline executives on the mass flight cancellations in light of receiving billions in taxpayer aid.¹⁵⁹ The conclusion to the hearing was “that the [PSP] saved many jobs.”¹⁶⁰ In early September 2022, lawmakers again sought to hold airlines accountable for the federal aid money.¹⁶¹ Two House Democrats requested the Treasury Department’s Inspector General to find out whether any of the taxpayer aid was spent on offering buyouts to employees.¹⁶² It seems that there has been significant federal oversight for the PSP and that, so far, the government has not found any mismanagement of the grant money by airlines. Whether the airlines could have prevented the current experienced pilot shortage remains to be seen. It’s worth noting, though, that the last time air travel collapsed the way it did during the pandemic was in World War II.¹⁶³ There are bound to be miscalculations and wrong predic-

¹⁵⁵ See *Pilot Shortage Myth*, *supra* note 151; Oriana Pawlyk, *Congress to airlines: Where did all that Covid money go?*, POLITICO (Nov. 20, 2021), <https://www.politico.com/news/2021/11/20/airlines-pandemic-bailout-cancellations-523100>. [<https://perma.cc/4RSR-U8R9>].

¹⁵⁶ See *Pilot Shortage Myth*, *supra* note 151.

¹⁵⁷ *Id.*

¹⁵⁸ See Leslie Josephs, *Airline CEOs Explain Flight Cancellations to Congress After Taking \$54 Billion in Taxpayer Aid*, CNBC (Dec. 18, 2021, 10:37 AM), <https://www.cnbc.com/2021/12/15/airline-ceos-face-senate-panel-over-flight-cancellations-after-taking-54-billion-in-taxpayer-aid.html>. [<https://perma.cc/6ES9-YSN3>].

¹⁵⁹ The executives testified that the Payroll Support Program did its job and saved the industry. See *id.*

¹⁶⁰ David Koenig, *2 House Chairs Seek Investigation into Airlines’ Use of Federal Pandemic Aid*, LOS ANGELES TIMES (Sept. 9, 2022, 5:16 PM), <https://www.latimes.com/business/story/2022-09-09/2-house-chairs-seek-probe-into-airlines-use-of-federal-aid> [<https://perma.cc/NBR9-FXBX>].

¹⁶¹ See *id.*

¹⁶² See *id.*

¹⁶³ Bob van der Linden, *Air Transport Command and the Airlines During World War II*, SMITHSONIAN NAT’L. AIR AND SPACE MUSEUM (June 26, 2020), <https://airandspace.si.edu/stories/editorial/air-transport-command-and-airlines-during-world-war-ii-1> [<https://perma.cc/E6GJ-6MBT>].

tions when World War II is the only historical event the COVID-19 air travel shut-down can be even remotely compared to.

There is a major problem with ALPA's denial of a pilot shortage. The union is correct in that, technically, there is no shortage of certificated pilots, i.e. people that hold pilot licenses.¹⁶⁴ However, there is a shortage of *qualified* pilots. In 2022, U.S. airlines needed to hire 12,000 to 15,000 pilots.¹⁶⁵ But with the time it takes to train, only an estimated 6,000 pilots were added to the workforce.¹⁶⁶ That means airlines were short at minimum 6,000 pilots for the year of 2022. Allied Pilots' Association (APA) Spokesman Dennis Tajer said, "This is a pilot pipeline problem, not a pilot shortage After a pilot obtains a commercial license, the supply chain breaks and many are not finding the ability to build their experience and hours."¹⁶⁷ He blames airlines and governments for "fail[ing] to ensure that there is an unhindered pathway to becoming an airline pilot They have failed to connect the pilot pipeline to becoming a pilot."¹⁶⁸

The APA is not alone in acknowledging this pipeline problem. In its publication titled *More Than Enough Pilots to Meet U.S. Airline Demand*, ALPA includes a section of quotes that purports to support the denial of a pilot shortage.¹⁶⁹ At first glance, these quotes sound like they deny such a shortage, but upon a closer look, that is not the case. What these CEOs are suggesting is that pilots with the minimum training are hard to come by.

Ed Bastian, Delta Air Lines CEO, commented, "Really there are no shortage of pilots wanting to come to us or really to our regional partners. It's a matter of getting them through the training and getting into the right seat with the right number of

¹⁶⁴ "According to the FAA, there are about 164,000 [airline transport pilot] licenses granted in the U.S. This includes people who can no longer legally fly commercially due to age or illness, and pilots who have not maintained medical certification." Ben Baldanza, *The 1,500-Hour Rule Has Broken The Pilot Pipeline In The U.S.*, FORBES (July 11, 2022, 7:18 AM), <https://www.forbes.com/sites/benbaldanza/2022/07/11/the-1500-hour-rule-has-broken-the-pilot-pipeline-in-the-us/?sh=703f80206a0a> [hereinafter Baldanza] [<https://perma.cc/653R-9JFU>].

¹⁶⁵ *See id.*

¹⁶⁶ *See id.*

¹⁶⁷ The APA represents 14,000 pilots from American Airlines and is also opposed to raising the retirement age. *See Hero, supra* note 118.

¹⁶⁸ *Id.*

¹⁶⁹ *See Pilot Shortage Myth, supra* note 151.

hours.”¹⁷⁰ It’s ironic that ALPA used this quote to support its argument that there is no pilot shortage when it suggests the exact opposite. Robert Isom said, “We’re going to have plenty of pilots. The biggest issue that we’re dealing with is the throughput of pilots and getting them through training.”¹⁷¹ ALPA wants its readers to believe the airlines deny a pilot supply problem, but they do not. A quote ALPA chose to exclude from its publication is one from Scott Kirby, United Airlines CEO. In April 2022, Kirby stated, “The pilot shortage for the industry is real, and most airlines are simply not going to be able to realize their capacity plans because there simply aren’t enough pilots, at least not for the next five-plus years.”¹⁷² The airline CEOs emphasize the difficulties around acquiring pilots with sufficient training and the time it takes to train them once they are hired, which is the very problem the new bill seeks to relieve.¹⁷³

B. LEGISLATORS’ FOCUS ON PILOT DEMOGRAPHICS

Instead of lowering the amount of experience pilots must have on the front end, lawmakers are proposing letting pilots fly longer on the back end.¹⁷⁴ The benefits of raising the age limit would be that (1) experienced pilots could continue their career and continue earning an income, and (2) newer pilots would have more time to gain the necessary experience and complete the airline’s initial training program.

The outspoken supporter of the LEPFA, Senator Lindsey Graham (R-SC), specifically cited the airline pilot demographic as the reason the mandatory pilot retirement age should be increased.¹⁷⁵ According to Graham: “With baby boomers making up half of the airline pilot population, roughly 5,000 fully qualified pilots will be forced to retire within the next two years and the problem will grow even more acute in the following years.”¹⁷⁶ One-third of airline pilots in the U.S. are in their fif-

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² Josephs, *supra* note 5.

¹⁷³ Delta Air Lines, among other carriers, dropped the four-year degree requirement for its new-hire pilot candidates. *See id.*

¹⁷⁴ *See* S. 4607, 117th Cong. (2022).

¹⁷⁵ *See* Press Release, Senator Graham, *supra* note 148. <https://www.lgraham.senate.gov/public/index.cfm/press-releases?ID=3DAF9D27-76C0-4370-B958-4FD90773169A> [<https://perma.cc/ZP96-LVTY>].

¹⁷⁶ *Id.*

ties.¹⁷⁷ The obvious solution is to “let experienced pilots fly.”¹⁷⁸ However, the key term there is “let,” meaning the government in this new bill would not be coercing this demographic to stay in the cockpit. These older pilots simply have the option to continue their career.¹⁷⁹ The problem is that many of these pilots would not be tempted enough to continue flying for any number of reasons. The two largest would be that (1) they are emotionally, mentally, and/or physically ready to retire; and (2) if they have to train on a new aircraft in order to keep their job, they don’t want to go through the trouble of re-training for only two more years of flying.

Not only is there the obstacle of the lack of incentive, there is the obstacle of backlogged airline training centers.¹⁸⁰ As of June 2022, Delta’s pilot training was nearly twelve months behind.¹⁸¹ For every older pilot that would elect to continue flying and re-train on an aircraft that flies domestic routes, they would have to be added to the long list of other pilots waiting to get qualified on a new aircraft or requalified on their current aircraft.

C. BREAKDOWNS IN THE PILOT PIPELINE

As mentioned above, one of the reasons airlines in the United States are struggling to find qualified pilots is because of the

¹⁷⁷ Shawn Baldwin, *Why the U.S. is running out of pilots*, CNBC (Sept. 13, 2022, 8:29 AM), <https://www.cnbc.com/video/2022/09/13/why-the-us-is-running-out-of-pilots.html> [hereinafter Baldwin] [<https://perma.cc/494P-8YJW>].

¹⁷⁸ *Id.*; *ALPA Fact Sheet: Pilot Retirement Age Facts*, AIR LINE PILOTS’ ASS’N, INTERNATIONAL, <https://www.alpa.org/-/media/ALPA/Files/pdfs/advocacy/alpa-pilot-supply-retirement-age.pdf?la=EN>.

¹⁷⁹ In his press conference, Graham stated, “What will happen [when the bill is passed] is we’ll give an opportunity to thousands of pilots *if they choose to stay in the cockpit* which makes it better for all of us depending on air travel.” (emphasis added). Press Release, Lindsey Graham, Senator, *ICYMI: Graham Speaks in Greenville on Bill Tackling Pilot Shortage* (July 25, 2022), <https://www.lgraham.senate.gov/public/index.cfm/2022/7/icymi-graham-speaks-in-greenville-on-bill-tackling-pilot-shortage> [<https://perma.cc/BWP9-ZBWE>].

¹⁸⁰ “Fleet changes and idled pilots during the pandemic created massive training backlogs across airlines as many aviators switched to new aircraft or waited for slots to complete federally mandated recurrent training.” Leslie Josephs, *United Airlines Plans \$100 Million Expansion of Pilot Training Center During Hiring Spree*, CNBC (June 1, 2022, 3:49 PM), <https://www.cnbc.com/2022/06/01/united-air-lines-plans-100-million-expansion-of-pilot-training-center.html> [<https://perma.cc/6VSA-KJBD>].

¹⁸¹ See David Slotnick, *Inside United’s flight training center—and its battle against the pilot shortage*, THE POINTS GUY (June 2, 2022), <https://thepointsguy.com/news/united-airlines-flight-training-center-expansion/> [<https://perma.cc/HTT3-6CT4>].

early retirement offers that many older pilots took during COVID-19.¹⁸² However, there are many layers to this problem, and the demographic is only one of them. The U.S. is suffering from a broken pilot pipeline. Raising or eliminating the retirement age avoids age discrimination and helps to keep a few pilots in the cockpit, but there are many other factors involved in this breakdown. The other contributing factors to the current state of civil aviation pilot supply in the U.S. are: (1) barriers to entry into the career; (2) missing incentives; (3) the shrinking military-pilot pool; and (4) the proliferation of drones.¹⁸³

1. *Barriers to Entry*

In order to be qualified for an airline transport pilot (ATP) license, non-military pilots must have 1,500 hours of training.¹⁸⁴ Known as the 1,500 Hour Rule, the regulation was put in place in response to a fatal airline crash in 2009,¹⁸⁵ even though the captain had over 3,000 flight hours and the first officer had more than 2,000 hours.¹⁸⁶ The 1,500 Hour Rule was a 600% increase in minimum flight hours from the previous minimum of 250 hours.¹⁸⁷ Because fatigue was a contributing factor to the crash, Congress required the FAA to implement longer rest periods and shorter duty days for flight crew members along with the adoption of safety management systems.¹⁸⁸ These new regulations were incorporated in the Airline Safety and Federal Aviation Administration Extension Act (FAAEA) of 2010.¹⁸⁹

ALPA has continuously supported the 1,500 Hour Rule since its enactment. It describes the FAAEA as “the most effective aviation safety law of the past decade.”¹⁹⁰ It relies on National Transportation Security Board (NTSB) data for its argument, citing “a

¹⁸² See Josephs, *supra* note 5.

¹⁸³ See Baldwin, *supra* note 177.

¹⁸⁴ Military pilots must have 750 hours. See 49 U.S.C. § 44701.

¹⁸⁵ See Isabel Goyer, *The 1500-Hour Rule is to Blame for the Airline Mess We're in Today*, PLANE & PILOT, <https://www.planeandpilotmag.com/news/opinion/2022/06/24/the-1500-hour-rule-is-largely-to-blame-for-the-airline-mess-were-in-today/> (last updated June 24, 2022) [<https://perma.cc/6AQV-CCLT>].

¹⁸⁶ See *id.*

¹⁸⁷ See Baldanza, *supra* note 164.

¹⁸⁸ See Andrea Traut, *The 1,500-Hour Rule: When Does Quantity Outweigh Quality?*, 84 J. AIR L. & COM. 267, 277 (2019). The minimum rest and maximum duty period rules are found in 14 C.F.R. §§ 117).

¹⁸⁹ See Traut, *supra* note 188, at 276–277.

¹⁹⁰ *Pilot Shortage Myth*, *supra* note 151.

99.8% reduction in airline fatalities.”¹⁹¹ However, the correlation between a stricter training requirement and a reduction in airline fatalities does not necessarily imply causation.¹⁹² “Fatal accidents have decreased in the United States every decade since the 1950s as technology, understanding of human behavior, and government oversight has improved.”¹⁹³

The regulation has been widely criticized since it went into effect.¹⁹⁴ The criticism has been that it was a rushed emotional response to an upsetting event; it puts the U.S. behind the global competition; it makes the career much less accessible; it does not make flying any safer, and; it caused the pilot shortage.

The origins of the rule are questionable because both pilots in the fatal crash had well above 1,500 hours of training.¹⁹⁵ The NTSB said the crash was due to the pilot inappropriately responding to the situation.¹⁹⁶ It did not provide that insufficient training had anything to do with it.¹⁹⁷ If the 1,500 Hour Rule had been in effect then, it would not have kept either pilot out of the flight deck.¹⁹⁸

For decades, the 250-hour statutory minimum was a sufficient safety standard. The new airline hires oftentimes had more than 250 hours under their belt. Once they completed the initial training at the respective airline, they continued learning and gaining experience on the job. Ben Baldanza, former CEO of Spirit Airlines, explains the training system pre-FAA:

New first officers were paired with seasoned captains over their next 1,000 or so hours, learning how to fly in the U.S. airspace system, and into big commercial airports. This apprentice-based system produced the safest air transportation system in the world

¹⁹¹ *Id.*

¹⁹² *See* Traut, *supra* note 188, at 291–292.

¹⁹³ *Id.*

¹⁹⁴ *See id.*; Baldanza, *supra* note 164; Goyer, *supra* note 167; <https://www.planeandpilotmag.com/news/opinion/2022/06/24/the-1500-hour-rule-is-largely-to-blame-for-the-airline-mess-were-in-today/> [<https://perma.cc/A4JW-W8DS>]; Robert Silk, *How the 1,500 hour rule created a pilot shortage*, TRAVEL WEEKLY (Aug. 18, 2017), <https://www.travelweekly.com/Robert-Silk/How-1500-hour-rule-created-pilot-shortage> [hereinafter Silk] [<https://perma.cc/A4JW-W8DS>].

¹⁹⁵ *See* Silk, *supra* note 194.

¹⁹⁶ Pilot fatigue was also a contributing factor: “[T]he captain had chronic sleep loss in the days before the accident and both he and the first officer had interrupted and poor-quality sleep in the 24 hours before their 9:18 p.m. take-off.” Baldanza, *supra* note 164.

¹⁹⁷ *See id.*

¹⁹⁸ *See id.*

and operated for over 80 years in the U.S., and was copied by virtually every other nation on the globe.¹⁹⁹

No other country in the world has matched this regulation in the twelve years since it was passed.²⁰⁰ The ICAO minimum for a multi-crew pilot license is 240 hours.²⁰¹ “In other parts of the world, major carriers like Lufthansa and easyJet offer training programmes that do not require any prior experience and allow joiners to fly as a co-pilot upon completion.”²⁰² In 2022, visa applications from pilots in other countries were flooding in.²⁰³ While the U.S. airlines cannot find pilots with enough experience, pilots in the rest of the world are jobless.²⁰⁴ “Breeze Airways, SkyWest Airlines, and CommutAir have been actively recruiting pilots in Australia, many of whom were furloughed during the extended lockdowns experienced there.”²⁰⁵ Because carriers in Australia grounded their planes for two years and because Australian licenses are recognized in the U.S., it is relatively easy for Australian pilots to transition to the American market.²⁰⁶ It is important to note that hiring non-American pilots is not without its obstacles. “For US airlines to hire foreign nationals, the US airline must certify . . . that the hiring will not displace American workers,” and “that sufficient efforts were made to recruit and retain American workers.”²⁰⁷ Instead of raising safety standards, the 1,500 Hour Rule may just make the U.S. less competitive in the global market.²⁰⁸

Accruing 1,500 flight hours *before* being able to fly for a commercial airliner is both incredibly expensive and very time-con-

¹⁹⁹ *Id.*

²⁰⁰ *See id.* For example, the minimum flight hours in the EU are 230. *See id.*

²⁰¹ The ICAO lowered the minimum as a response to the concern that “standard programs relied too much on lots of flying hours in small aircraft that aren’t used in commercial aviation.” Silk, *supra* note 194.

²⁰² Jamie Freed, *Explainer: Why U.S. Airline Pilot Wages are Outpacing Global Rises*, REUTERS (Dec. 5, 2022, 6:54 AM), <https://www.reuters.com/business/aerospace-defense/why-us-airline-pilot-wages-are-outpacing-global-rises-2022-12-05/> [<https://perma.cc/U5F2-YK3Q>].

²⁰³ Michael Doran, *Foreign Pilots Eyeing US Jobs Amid Employee Shortage*, SIMPLE FLYING (May 4, 2022), <https://simpleflying.com/foreign-pilots-eyeing-off-us-jobs/> [<https://perma.cc/5H6B-6WVK>].

²⁰⁴ *See id.*

²⁰⁵ *Id.*

²⁰⁶ *See id.*

²⁰⁷ Joe Kunzler, *Southwest Airlines Is Considering Hiring Foreign Pilots*, SIMPLE FLYING (Oct. 27, 2022), <https://simpleflying.com/southwest-airlines-considering-foreign-pilots/> [<https://perma.cc/5H6B-6WVK>].

²⁰⁸ *See* Baldanza, *supra* note 164.

suming.²⁰⁹ This rule puts major pressure on the pilot pipeline for a few reasons. First, the longer it takes to accrue those hours, the longer it takes to fill cockpit seats. Second, less people are willing to enter the field with that large of a hurdle to jump. And third, even less people have the time and money to reach that level of experience. “A 2018 report by the Government Accountability Office found cost to be one of the largest recruitment challenges for flight schools.”²¹⁰

The justification for this rule was, of course, for safety reasons. However, according to university-level flight instructors, “[T]he quality of one’s training is more important than the quantity.”²¹¹ Trainees with an aviation degree perform better than those without.²¹² Furthermore, there is no proof that the 1,500 Hour Rule has made air travel any safer.²¹³ In fact, it is suggested that it makes flying less safe.²¹⁴ New pilots can spend 1,450 of those hours on a single-engine aircraft, which is not the type of aircraft they will operate as an airline pilot.²¹⁵ That means that instead of getting real-world on-the-job training in the apprentice system, non-military pilots come into the airline industry with arguably irrelevant experience. Also, “trainees who are less than four years removed from college graduation perform the best”²¹⁶ “[T]rainees with less than 1,500 hours of logged flight time actually performed better in regional airline pilot training than those with more than 1,500 hours.”²¹⁷

2. *Missing Incentives*

The traditional career path for non-military pilots begins with a regional carrier. Once pilots earn their airline transport pilot

²⁰⁹ For a person not trained by the military, it takes about \$250,000 and a few years to get the required experience. See Baldanza, *supra* note 164.

²¹⁰ Gregory Wallace & Pete Muntean, *United Airlines has an answer to the pilot shortage: Its own flight school*, CNN (Jan. 31, 2022, 4:50 PM), <https://www.cnn.com/2022/01/31/business/united-airlines-flight-school/index.html> [hereinafter Wallace & Muntean] [<https://perma.cc/R8ZG-7PWN>].

²¹¹ Silk, *supra* note 194.

²¹² See Silk, *supra* note 194.

²¹³ See Traut, *supra* note 188 (As stated above, the lack of airline fatalities cannot be dispositively linked to the increase in minimum experience because of other factors such as technology. FN 195a: See *supra* Section IV.C.1.).

²¹⁴ See Silk, *supra* note 194; see also Baldanza, *supra* note 164.

²¹⁵ See Silk, *supra* note 194.

²¹⁶ Silk, *supra* note 194.

²¹⁷ See Silk, *supra* note 194 (various Pilot Source studies).

(ATP) certificate, they often begin flying for a regional airline²¹⁸ such as Envoy Air or Mesa Airlines; there, they work for a few years to build experience and hours before transitioning to a mainline carrier such as United or Delta. The mainline pilot jobs are much more competitive, so one of the only ways to gain enough experience is by working as a regional pilot. The reason these pilots are anxious to transition to the mainlines is largely due to the historically abysmal pay and work life at regional carriers.

The “near poverty-level entry wages”²¹⁹ have proven to be a significant deterrent to entering the career. Imagine working for years to earn your ATP, only to be making what amounts to around twenty-six dollars per hour as a new hire first officer at regional airlines.²²⁰ Of course, pay will increase as a pilot’s seniority increases, but it is still a dauntingly low new-hire salary for someone in hundreds of thousands of dollars of debt from the 1,500 hours of training they had to acquire. Fortunately, “over the past two years, many regional carriers, including the two biggest, SkyWest Airlines and Republic Airways, have made substantial increases in starting pay and added signing bonuses.”²²¹

While such pay increases are unquestionably positive developments, the quality of life for new-hires also needs to be ad-

²¹⁸ Additionally, airline pilots often begin their careers with a low-cost carrier, such as Spirit Airlines. FN 200a: *See e.g.*, Dominic Gates, *Pilots at Alaska-owned Horizon Air Win Huge Pay Hikes in New Contract*, SEATTLE TIMES (Sept. 23, 2022, 4:04 PM), <https://www.seattletimes.com/business/boeing-aerospace/pilots-at-alaska-owned-horizon-air-win-huge-pay-hikes-in-new-contract/> [<https://perma.cc/87NG-QHXG>].

²¹⁹ *See Silk, supra* note 194.

²²⁰ *See Gates, supra* note 218. (For example, Horizon Airlines, the regional sister carrier to Alaska Airlines, was paying their new-hires \$48 per hour before the September 2022 contract). Because flight crew members are only paid for flight hours (i.e. when the aircraft door is closed), a full-time schedule is about twenty hours per week—instead of the traditional forty—from my experience in the airline industry. This is how I reached the \$26 per hour calculation. Flight crew members also earn “time away from base pay,” also known as per diem pay. Per diem pay is usually two to three dollars per hour, based on my experience.

²²¹ Silk, *supra* note 194 (Horizon Airlines also made a huge increase in pilot pay: “captains will get an average pay hike of 74% while first officers will get a pay raise of 85%”); *see also* Jamie Freed, *Explainer: Why U.S. airline pilot wages are outpacing global rises*, REUTERS (Dec. 5, 2022, 6:54 AM), <https://www.reuters.com/business/aerospace-defense/why-us-airline-pilot-wages-are-outpacing-global-rises-2022-12-05/> [<https://perma.cc/ZHL7-4GNE>] (Piedmont Airlines said in June it would nearly double first-year pay to captains and first officers to \$146 an hour and \$90 an hour respectively.).

dressed. “You’re never going to pay someone enough for a lost piano recital with their daughter or a lost baseball game.”²²² While a flight crew member’s schedule is inherently unpredictable, there are ways carriers can ensure aviators arrive home on time. “There’s situations where a pilot may be extended multiple days — he packed his bag for two days and ends up being out for four.”²²³ When there are changes to a flight schedule, it is much easier to mitigate if the airline is properly staffed and organized. Quality of life while at work could also use major improvement. It’s not uncommon for regional pilots to fly four or more legs in one day (that stretch from early mornings to late evenings) all while adhering to federal rules on duty and rest times. “The fact that pilots can show up to work and have their schedule completely jumbled and not have any idea where they’re going to be laying over that night” is a problem that both regional and mainline carriers cannot ignore. In fact, the tentative agreement between Piedmont Airlines and its pilots includes updated reserve rules—a guaranteed twelve days off per month, and a fifty-percent pay increase on certain holidays.²²⁴ This agreement seems promising, until you learn these are just temporary agreements. Piedmont and Envoy Air, “American Airlines-owned regional carriers[,] will hike pilot pay by 50% through the end of August 2024.”²²⁵

Mainline carriers depend on regional airlines to operate less popular routes, then poach the regional pilots once they gain enough experience. The only way for regional carriers to keep the mainlines from poaching their pilots is to improve pay and working conditions. Doing so would accomplish two goals: incentivize prospective pilots to enter the career and incentivize regional pilots to remain regional pilots. After decades of low pay and atrocious work-life balance, the acute pilot shortage is forcing many regional airlines to rethink their strategy and offer

²²² Niraj Chokshi, *Airline Pilots Seek Big Raises, and Broader Changes*, N.Y. TIMES (July 10, 2022), <https://www.nytimes.com/2022/07/10/business/airline-pilots-pay.html> [<https://perma.cc/5QLF-5N54>].

²²³ *Id.*

²²⁴ See Lukas Souza, *Piedmont Airlines Reaches Tentative Agreement With Pilots To Improve Quality Of Life*, SIMPLE FLYING (Nov. 30, 2022), <https://simpleflying.com/piedmont-airlines-reaches-tentative-agreement-pilots-improve-quality-life/> [<https://perma.cc/XQE6-UB7X>].

²²⁵ Leslie Josephs, *American Airlines regional carriers hike pilot pay more than 50% as shortage persists*, CNBC (June 13, 2022, 6:27 PM) (emphasis added), <https://www.cnbc.com/2022/06/13/american-airlines-regional-pilots-get-big-pay-hikes-as-competition-for-pilots-intensifies.html> [<https://perma.cc/S3J4-8MFS>].

better incentives to entry-level pilots. If the regionals can make these changes permanent, it could bolster the pilot supply with more appealing entry-level positions.

3. *Shrinking Military-Pilot Pool*

Traditionally, the military was the main recruitment pool for airlines seeking commercial pilots.²²⁶ In the last few decades there has been a shift—today, civilians with private flight-school training now make up the majority of pilots.²²⁷ However, military-trained pilots make up roughly thirty percent of incoming commercial pilots.²²⁸ Military aviation directly and indirectly affects commercial aviation, and the military has faced recruitment challenges of its own.

“The Department of Defense had a shortfall of 3,000 pilots according to a 2019 report to Congress:”²²⁹ about 2,000 short of the Air Force’s goal and 1,200 short of the Navy’s.²³⁰ The Department of Defense cites “several years of underproduction in pilot training and reduced aircraft readiness” as reasons for the shortage.²³¹ Another recruitment issue is that “elements of the Air Force’s selection process, such as requirements for flight hours, are largely unchanged since the 1970s, which limits the pool of potential candidates.”²³²

The changing of the times must also be considered when it comes to low recruitment numbers. As a further driving factor, many young people today cannot or do not want to join the military.²³³ “A stereotypical ‘cyber warrior’ who can earn a hand-

²²⁶ See Tobin Harshaw, *Airlines Can’t Blame the Pentagon for Pilot Shortage*, BLOOMBERG (June 23, 2021, 8:00 AM), <https://www.bloomberg.com/opinion/articles/2021-06-23/airlines-can-t-blame-pentagon-for-pilot-shortage> [<https://perma.cc/3LE3-9UQ4>].

²²⁷ See *id.*

²²⁸ See *id.*

²²⁹ Baldwin, *supra* note 177.

²³⁰ See Harshaw, *supra* note 208.

²³¹ Kimberly Johnson, *Air Force Strategies Chipping Away at Pilot Shortfall*, FLYING (Jan. 17, 2022), <https://www.flyingmag.com/air-force-strategies-chipping-away-at-pilot-shortfall/> [<https://perma.cc/3JJV-DBJN>].

²³² Benjamin Brimelow, *In a Major War, The US May Run Out of Pilots Before it Runs out of Jets, a Top Air Force General Says*, INSIDER (Apr. 7, 2022, 5:17 PM), <https://www.businessinsider.com/in-war-us-may-run-out-of-pilots-before-jets-2022-4> [<https://perma.cc/7BF6-TGF4>].

²³³ See Wes O’Donnell, *Why Don’t America’s Young People Want to Join the Military?*, AM. MIL. UNIV. EDGE (Oct. 19, 2021), <https://amuedge.com/why-dont-dont-americas-young-people-want-to-join-the-military/> [<https://perma.cc/>].

some salary as a White Hat for a major corporation is not likely to be attracted by poor accommodation, woeful leadership and a 1970s view on discipline.”²³⁴

The military increased the amount of time a pilot must stay with the military from six²³⁵ to ten years.²³⁶ This four-year difference matters: ten years is closer to twenty, which is the threshold for retirement. It’s likely that a lot of pilots who would have considered leaving the military for commercial aviation at six years feel differently by year ten. They’ve already invested so much time in the Air Force, and retirement does not feel so far away. Furthermore, many Air Force pilots retire in their early forties,²³⁷ which leaves them with possibly more than twenty years to fly for an airline after retirement while reaping all of the military retirement benefits.²³⁸

C2EV-HCYX] (“[Seventy-one] percent of young people are ineligible to join the military, according to 2017 Pentagon data. The reasons: obesity, no high school diploma, or a criminal record . . . Only 29% of Gen Z are eligible for military service. Of those young people who are qualified, only 12.5%, the lowest number in a decade, shows any interest in the military.”).

²³⁴ See Paul Kennard, *Why Militaries Are Having Trouble Recruiting Pilots*, FORBES (Aug. 16, 2019, 6:00 AM), <https://www.forbes.com/sites/paulkennard/2019/08/16/pilotswhats-the-problem/?sh=20f9c6011fe1> [<https://perma.cc/X9ER-E83M>].

²³⁵ See John Cox, *Ask the Captain: Are Most Airline Pilots from the Military?*, USA TODAY (March 18, 2013), <https://www.usatoday.com/story/travel/columnist/cox/2013/03/18/ask-the-captain-are-most-airline-pilots-from-the-military/1994161/>.

²³⁶ See *Pilot*, U.S. AIR FORCE, <https://www.airforce.com/careers/detail/pilot> [<https://perma.cc/5HTS-FQUX>] (“The commitment for an Air Force Pilot is 10 years of active-duty service after completion of pilot training.”); see also for fixed-wing jet aircraft or six years for any other type of aircraft. 10 U.S.C. § 653 (For other branches of the military, the minimum is eight years.); see also See Rod Powers, *Naval Aviation – Pilot and Naval Flight Officers’ – Qualification*, LIVEABOUT-DOTCOM (Aug. 14, 2019), <https://www.liveabout.com/naval-aviation-pilot-qualification-3356606> [<https://perma.cc/C8TV-ZFWF>] (However, in the Navy, training can take up to two years before the eight year clock starts.).

²³⁷ See KRISTY N. KAMARCK, CONG. RSCH. SERV., RL34751, MILITARY RETIREMENT: BACKGROUND AND RECENT DEVELOPMENTS 3 (2022) (“In [fiscal year] 2020, the average active duty non-disability enlisted retiree retired at the age of 42-years-old and the average officer retired at age 46.”).

²³⁸ The downside of a pilot beginning their airline career in their forties is—due to the airline seniority system—by the time they turn sixty-five, it’s likely they still won’t have reached a senior position in the airline. See, e.g., *Airline Seniority Explained*, ATP, <https://atpflightsschool.com/become-a-pilot/airline-career/airline-seniority-explained.html> (last visited Apr. 5, 2023) [<https://perma.cc/S5TL-VG6T>].

4. Proliferation of Drones

Another way military aviation affects commercial aviation in the U.S. is the wide use of military drones.²³⁹ The Air Force has relied more and more on unmanned aircraft systems (UAS) in recent years.²⁴⁰ By 2017, it had more drone pilot jobs than traditional manned aircraft pilot jobs.²⁴¹ Fewer manned-aircraft pilots in the military translates to fewer commercial pilot candidates.

Unmanned aircraft are not completely new in the military.²⁴² Pilotless aircraft were introduced in the 1960s and used for intelligence, surveillance, and reconnaissance (ISR).²⁴³ Unmanned aircraft systems didn't become prominent, however, until the development of the MQ-1 Predator in the 1990s.²⁴⁴ These aircraft were notably deployed in the Kosovo, Iraq, and Afghanistan conflicts.²⁴⁵ In addition to ISR, UAS have been used in missions such as "cargo and resupply; . . . close air support; [and] communications relay . . ." ²⁴⁶ Today, there are even more opportunities to replace crewed aircraft with UAS. "[The potential UAS roles and missions] include aerial refueling, air-to-air combat, combat search and rescue, strategic bombing, battle management command and control, suppression and destruction of enemy air defenses, and electronic warfare."²⁴⁷

Unmanned aircraft systems are ubiquitous and here to stay. Other countries, such as Iran, Israel, China, and Turkey, are following the U.S. in developing more sophisticated UAS technolo-

²³⁹ See Baldwin, *supra* note 177.

²⁴⁰ See Oriana Pawlyk, *Drone Milestone: More RPA Jobs Than Any Other Pilot Position*, MILITARY.COM (Mar. 8, 2017), <https://www.military.com/daily-news/2017/03/08/drone-milestone-more-rpa-jobs-any-other-pilot-position.html> [<https://perma.cc/X89C-BD9H>].

²⁴¹ See *id.* ("The U.S. Air Force now has more jobs for MQ-1 Predator and MQ-9 Reaper drones than any other type of pilot position For example, the MQ-1 Predator and MQ-9 Reaper family of remotely piloted aircraft are slated to have more than 1,000 pilot operators, according to fiscal 2017 statistics provided to Military.com on Tuesday. By comparison, the highest numbers in any other aircraft are 889 airmen piloting the C-17 Globemaster III and 803 flying the F-16 Fighting Falcon, said Lt. Col. Tracy Bunko, spokeswoman for AETC.").

²⁴² See JOHN R. HOEHN ET. AL., CONG. RSCH. SERV., R47188, UNMANNED AIRCRAFT SYSTEMS: ROLES, MISSIONS, AND FUTURE CONCEPTS 1 (2022) [hereinafter Hoehn].

²⁴³ See *id.*

²⁴⁴ See *id.* at 1-2.

²⁴⁵ See *id.* at 2.

²⁴⁶ *Id.* at 1.

²⁴⁷ *Id.* at 5.

gies.²⁴⁸ The U.S. will continue to invest in UAS technology and deploy remotely-piloted drones in military operations to stay ahead. The trend to replace manned pilot jobs with UAS pilot jobs will likely continue, resulting in less and less traditional pilot jobs available to prospective pilots. That means fewer opportunities for pilot candidates to accrue the necessary experience to become airline pilots and fewer candidates for airlines to hire.

V. CONCLUSION: ALTERNATIVE METHODS TO AVOID AGE DISCRIMINATION AND SUPPORT THE PILOT PIPELINE

Raising the airline pilot age ceiling from sixty to sixty-five has served the purpose of allowing pilots to fly longer while still maintaining a successful safety record.²⁴⁹ However, sixty-five is still an arbitrary number and has not insulated the industry from multiple pilot shortages in the years since the 2007 age increase.²⁵⁰ The proposal to raise the retirement age to sixty-seven also has its flaws. An Age Sixty-Seven Rule is just as arbitrary as the Age Sixty-Five Rule and it is unlikely to increase qualified pilot supply. APA spokesman Dennis Tajer observed that raising the retirement age “[is] not nestled in science nor is the rest of the world considering it. It’s a lazy solution.”²⁵¹ Although Tajer speaks for a political organization, it is a fair criticism that raising the age fails to address the deeper problem. Scott Kirby, CEO of United Airlines, “[does] not think [lifting the retirement age is] the solution. At United Airlines, of our age sixty-four pilots, thirty-six percent of them are unavailable to fly on a given day for sick, long-term, or short-term medical leave. The

²⁴⁸ See Hoehn, *supra* note 224, at 23.

²⁴⁹ See BUREAU OF TRANSP. STAT., U.S. GENERAL AVIATION SAFETY DATA, <https://www.bts.gov/content/us-general-aviation-safety-data> [<https://perma.cc/2HSB-9HF7>] (In the years since the 2007 rule change, the total accidents per 100,000 flight hours was roughly the same if not lower than the years before 2007).

²⁵⁰ See Bart Jansen, *Airline Fears of Pilot Shortage Spark Congress Fight over Required Training*, USA TODAY (Aug. 27, 2015, 2:00 PM), <https://www.usatoday.com/story/news/2015/08/27/pilot-shortage-faa-1500-hours-required-colgan-crash-alpa/32008451/>. (There was a debated shortage in 2014); see also Sam Meredith, *Boeing CEO Says a Global Pilot Shortage is ‘One of the Biggest Challenges’ Facing the Airline Industry*, CNBC (June 18, 2019, 1:09 AM), <https://www.cnbc.com/2019/06/17/boeing-ceo-says-global-pilot-shortage-is-one-of-the-biggest-challenges.html> [<https://perma.cc/LS68-SAWG>] (There was also a shortage in 2019); To be fair, the purpose for raising the age to sixty-five was not related to pilot supply.

²⁵¹ *Hero*, *supra* note 118.

medical requirements are really, really stringent for being a pilot.”²⁵²

There are alternatives to the current Age Sixty-Five Rule and to the proposed Age Sixty-Seven Rule that could achieve the objective of relieving the shortage of experienced pilots while keeping the skies safe. ALPA published “Recommendations to Maintain a Robust Pilot Pipeline.”²⁵³ Notwithstanding the union’s deliberate phrasing of *maintaining* rather than *achieving* an adequate pilot supply, most of its recommendations are generally valuable ideas.²⁵⁴ For example, ALPA suggests, among other things, that the government create incentives for people to pursue careers in aviation.²⁵⁵ The U.S. could enact programs that make it more affordable and accessible for prospective pilots to earn their certificates and accrue the necessary flight hours.²⁵⁶ The federal government could give more grant money to aviation programs and subsidize loans for aviation colleges and universities.²⁵⁷ These are all worthwhile endeavors that could lead to positive change and a larger workforce. However, they are more complicated than simply raising the mandatory pilot retirement age, as they are long-term objectives that require careful planning and coordination.²⁵⁸

Another alternative has been advocated for since 1959 when the mandatory retirement age was first enacted: eliminate the age limit altogether.²⁵⁹ During the initial discussion of raising the age to sixty-five in 2004, the Aerospace Medical Association stated: “Based on the small number of accidents involving pilot incapacitation, current medical and performance testing of pilots at [six-month] intervals appears to be successful in identifying high-risk pilots.”²⁶⁰ Eliminating a mandatory retirement age would undoubtedly achieve the purpose of preventing age discrimination, the value of which cannot be overstated. Because

²⁵² Baldwin, *supra* note 177.

²⁵³ *Pilot Shortage Myth*, *supra* note 151.

²⁵⁴ *See id.*

²⁵⁵ *See id.*

²⁵⁶ *See id.*

²⁵⁷ *See id.*

²⁵⁸ *See Pilot Shortage Myth*, *supra* note 151 (Unsurprisingly, ALPA also recommends maintaining the current ICAO and EASA age limit in order to “[m]aintain a [r]obust [p]ilot [p]ipeline”).

²⁵⁹ *See* Barklow, *supra* note 62, at 331; *see also* Dubois, *supra* note 63, at 343.

²⁶⁰ *The Age 60 Rule*, 75 *Aviation, Space, Env’t Med* 708, 713 (AEROSPACE MEDICAL ASSOCIATION (Aug. 2004), https://www.asma.org/asma/media/asma/pdf-policy/2004/position-paper-Age-60-rule_2004.pdf [<https://perma.cc/7PUT-E4P4>]).

courts are unwilling to step on the FAA's toes, it is up to Congress to make the change. Although this could take years, if ever, to happen, it is the best solution to preventing age discrimination and supporting the airline industry with additional pilots in the workforce.

In Lindsey Graham's speech introducing the Age Sixty-Seven bill, he specified that the bill would raise the age without requiring additional testing.²⁶¹ If the age limit is removed altogether, individualized medical examinations and simulator testing might fill any voids that come with pilots flying in their late sixties and beyond. Japan requires pilots sixty-five and over to pass an epilepsy test in addition to the rest of the medical evaluations.²⁶² There is also testing available for cognitive decline.²⁶³

The more immediate solution could be to raise the mandatory retirement age to seventy. The two-year difference between sixty-five and sixty-seven may be more trouble than it's worth. The amount of time and energy it takes to pass a bill is not justifiable compared to its minimal effect on airline pilot supply. Raising the age to seventy would still place a cap on the pilot age while making it more attractive for older pilots to keep flying. If it is raised to seventy, it's likely that more pilots will choose to continue working, which would achieve the purpose of alleviating the pilot shortage. The discrepancy between the ICAO standard of sixty-five and a U.S. Age Seventy Rule would still be a major issue. It would make sense to raise the age to seventy before the ICAO did so *only* if there was a high probability that the ICAO would increase its age limit shortly thereafter, making the discrepancy only temporary.

Raising the age to seventy, or even removing the age limit altogether, would keep more pilots in the workforce, but not very many more. It's safe to assume that the majority of pilots that reach their late sixties and beyond are ready to retire. For that reason, it makes more sense to focus on the front-end of the airline pilot career—specifically the 1,500 Hour Rule. Reducing the number of hours required to obtain a commercial license

²⁶¹ See Nevin Smith, *WATCH: Sen. Graham Speaks on Federal Retirement Age for Pilots*, WIS NEWS 10 (July 25, 2022, 10:30 AM), <https://www.wistv.com/2022/07/25/watch-sen-graham-speaks-federal-retirement-age-pilots/>, [<https://perma.cc/993X-P87K>].

²⁶² See Agence France-Presse, *Pensioners can be pilots*, *supra* note 146, <https://www.theguardian.com/world/2015/apr/23/pensioners-can-be-pilots-says-japan-as-shortage-sees-age-limit-lifted-to-67> [<https://perma.cc/2MKD-YLL2>].

²⁶³ See Hoffman, *supra* note 22, at 126-130.

would not make flying any less safe. The former 250-hour minimum was considered perfectly safe for decades. Even if the U.S. cut 1,500 hours in half to 750 flight hours, it would still be 500 hours more than the minimum enforced by the rest of the world. It would make the career much more accessible and would put more pilots in the cockpit at a rate that could keep up with demand without sacrificing safety.

Because “traditional models are not adequately feeding the demand,” United Airlines took a creative approach to making the career more accessible—it opened an in-house flight training operation in January 2022—the first of its kind in the U.S.²⁶⁴ The program is called Aviate Academy and is modeled after military pilot training programs.²⁶⁵ For a certification that usually costs about \$100,000, the academy costs roughly \$71,000, with scholarships available.²⁶⁶ The students spend ten months earning multiple credentials and then “United points trainees toward jobs at partner companies” where they can accrue their 1,500 hours before being hired by United.²⁶⁷ Another benefit is the opportunities this Academy provides to women and minorities, which made up the vast majority of the inaugural Aviate Academy class—eighty percent.²⁶⁸ Other airlines, instead of operating their own flight schools, partner with established flight academies.²⁶⁹ “Other majors, including American Airlines, Delta Air Lines, Southwest, Hawaiian, JetBlue and Frontier, have set up branded training programs affiliated with dozens of independent flight schools across the country.”²⁷⁰

The U.S. is the leader in civil aviation. The world is looking to us for innovation and forward thinking. This is a great opportunity to reevaluate both the mandatory retirement age and the 1,500 Hour Rule and explore creative solutions that make the lives of both pilots and travelers better.

²⁶⁴ Wallace & Muntean, *supra* note 210.

²⁶⁵ *See id.*

²⁶⁶ *See id.*

²⁶⁷ Wallace & Muntean, *supra* note 210.

²⁶⁸ *See id.*

²⁶⁹ *See* Bob Woods, *How Airlines Plan to Create a New Generation of Pilots Amid Fears of Decade-Long Cockpit Crisis*, CNBC (Nov. 12, 2022, 1:09 PM), <https://www.cnbc.com/2022/11/11/how-airlines-plan-to-create-new-generation-of-pilots-at-time-of-crisis.html> [<https://perma.cc/M9TM-WU9Q>].

²⁷⁰ *Id.*