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FROM THE COCKPIT TO THE NURSING HOME: A LOOK AT THE RECENT DEVELOPMENTS IN THE LAW CONCERNING THE AGE-60 RULE

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THE HISTORY OF THE AGE-60 RULE: WHERE WE’VE BEEN

WITH THE development of the commercial airlines during the early part of the twentieth century, federal regulation of the aviation industry had its genesis in the 1930’s when the Civil Aeronautics Authority (predecessor of the Federal Aviation Administration (FAA)) established standards for airline pilots.1 These standards were designed to protect both the pilots and the traveling public.2 The regulatory agency’s initial regulations stipulated mandatory retirement for airline pilots failing to meet requisite physical standards. The FAA, however, did not propose implementation of a mandatory retirement age until 1959.3 On March 15, 1960, despite opposition from various industry-related groups,4 the FAA promulgated an industry regulation (the “Age-60 Rule”) banning pilots

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1 Karl M. Ruppenthal, Compulsory Retirement of Airline Pilots, 14 INDUS. & LAB. REL. REV. 528 (1961).
2 Id.
3 Id. at 528-29. In fact, during the early development of the airline industry, the age of the pilot was not considered relevant to flight safety. Id.
4 Interestingly, although the FAA invited comments on the proposed regulation, hearings to discuss the ramifications of such regulations were never scheduled. Id. at 535. In response to the FAA proposal, the Air Line Pilots Association (ALPA) filed a brief, asserting, among other contentions, that the Administrator of the FAA did not possess the power or authority to issue the proposed regulations. Id. Additionally, ALPA alleged that the regulations imposed limitations on pilots’ professional and property rights without affording them the opportunity for a full evidentiary hearing and therefore violated due process of law. Id.

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over the age of sixty from flying. While the Age-60 Rule has existed in various forms since its inception, the current regulation continues to prohibit individuals sixty years of age or older from piloting large commercial aircraft.

In support of the regulation, the FAA originally relied on medical studies which indicated that "sudden incapacitation due to heart attacks or strokes become more frequent as men approach age sixty and present medical knowledge is such that it is impossible to predict with accuracy those individuals most likely to suffer attacks." The FAA also pointed to increased risk posed by the growing number of pilots aged sixty and older. The FAA emphasized that older pilots, due to their seniority under

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5 Id. at 536-37.
7 14 C.F.R. § 121.383(c) (1991). The regulation states, in relevant part:
   (a) No certificate holder may use any person as an airman nor may any person serve as an airman unless that person
      (1) Holds an appropriate current airman certificate issued by the FAA;
      (2) Has any required appropriate current airman and medical certificates in his possession while engaged in operations under this part; and
      (3) Is otherwise qualified for the operation for which he is to be used.
   (b) Each airman covered by paragraph (a)(2) of this section shall present either or both certificates for inspection upon the request of the Administrator.
   (c) No certificate holder may use the services of any person as a pilot on an airplane engaged in operations under this part if that person has reached his 60th birthday. No person may serve as a pilot on an airplane engaged in operations under this part if that person has reached his 60th birthday.
   8 Air Line Pilots Ass'n, Int'l v. Quesada, 276 F.2d 892, 898 (2d Cir. 1960). More specifically, the FAA stated that (1) aging causes deterioration of important physiological and psychological functions largely due to degenerative arteriosclerosis; (2) because the aging process affects each person differently, the effects of the aging process on any one individual cannot be predicted; (3) degeneration due to the aging process accelerates during the later stages of life; and (4) age degeneration often results in sudden incapacitation, disabling an individual without warning. Kasperzak, supra note 6, at 244-45.
then-existing collective bargaining agreements, often flew
the newest and fastest planes. Recently, one court re-exa-
mined the FAA's safety justifications for the regulation
and noted that the FAA reaffirmed the Age-60 Rule in
1972 and 1984 after finding that advanced age may ad-
versely affect pilot safety and that then-available tests
could not reliably predict adverse effects in individual
cases.

From its inception, however, the Age-60 Rule has been
subject to harsh criticism. In fact, in January 1960, before
the rule went into effect, the Air Line Pilots Association
(ALPA) brought suit against the administrator of the FAA
in response to the proposed rule. ALPA sought a de-
claratory judgment rendering the regulation null and
void, and further sought injunctive relief against its
threatened application. The association alleged that, by
terminating a pilot's right to command planes in com-
mercial service after age sixty, the regulation deprived pilots
of their property rights in their licenses without due pro-
cess of law. Furthermore, ALPA alleged that the regula-
tion was invalid because the FAA issued it without holding
adjudicatory hearings as required by the Administrative
Procedure Act and the Federal Aviation Act of 1958. ALPA
insisted that the regulation "was arbitrary, discrimi-
natory and without reasonable relation to the standards
set forth" in the Federal Aviation Act. The trial court
denied the plaintiff's motion for a preliminary injunction
and reserved judgment on the defendant Administrator's
cross motion for summary judgment. The plaintiffs
appealed.

119 Quesada, 276 F.2d at 892.
140 EEOC v. Boeing Co., 843 F.2d 1213 (9th Cir.), cert. denied, 109 S. Ct. 222
111 Quesada, 276 F.2d at 892.
112 Id. at 894.
113 Id.
14 Id.
10 Quesada, 276 F.2d at 894.
117 Id.
The United States Court of Appeals for the Second Circuit affirmed the lower court's ruling. Holding that the Age-60 Rule did not violate due process, the court noted that administrative regulations often limit the use that persons may make of their property without affording those persons an opportunity to present evidence concerning the fairness of the regulation. The court further stated that, because the restrictions imposed upon the pilots were not overly stringent in relation to the public interest to be served, the limitations set forth in the FAA regulations were entirely reasonable.

Additionally, the court held that the FAA properly issued the directive in accordance with the rule-making requirements of the Administrative Procedure Act, thereby rejecting ALPA's contention that the FAA violated the adjudicatory hearing requirements mandated by the Act. Emphasizing the considerable data reviewed by the FAA while formulating the Age-60 Rule, the court affirmed the trial court's decision denying the preliminary injunction.

Having survived this initial challenge, the Age-60 Rule has withstood further rigorous litigation, much of which had been based on alleged violations of provisions of the Age Discrimination in Employment Act of 1967 (ADEA). The thrust of the ADEA is best understood

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18 Id. at 898.
19 Id. at 896.
20 Id.
21 Id.
22 Id. at 898.
23 Id.
25 The ADEA provides in pertinent part that it is unlawful for an employer:

   (1) to fail or refuse to hire or to discharge any individual or otherwise discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment because of such individual's age;

   (2) to limit, segregate, or classify his employees in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individuals age; or
in terms of its three major goals: 1) the employment of persons based on ability rather than age; 2) the prohibition of arbitrary age discrimination in employment; and 3) assistance in solving problems arising from the impact of age on employment.\textsuperscript{26}

Although the ADEA offers broad protection against age-based discrimination to individuals between the ages of forty and seventy, Congress carved out several important exceptions which seriously limit the potential effect of the ADEA.\textsuperscript{27} Significantly, the ADEA's prohibition against age discrimination does not apply in circumstances where the employer can demonstrate that age is a bona fide occupational qualification (BFOQ)\textsuperscript{28} - a factor that an employer considers to be a requirement of the job.\textsuperscript{29}

\begin{itemize}
  \item[(3)] to reduce the wage rate of any employee in order to comply with this chapter.
\end{itemize}

\textit{Id.} § 623(a).


\textsuperscript{28} The ADEA specifically states that an employer may discriminate on the basis of age:

\begin{itemize}
  \item[(1)] where age is bona fide occupational qualification reasonably necessary to the normal operation of the particular business, or where the differentiation is based on reasonable factors other than age, or where such practices involve an employee in a workplace in a foreign country, and compliance with such subsections would cause such employer, or a corporation controlled by such employer, to violate the laws of the country in which such workplace is located;
  \item[(2)] to observe the terms of a bona fide seniority system or any bona fide employee benefit plan such as a retirement, pension or insurance plan, which is not a subterfuge to evade the purposes of this chapter, except that no such employee benefit plan shall excuse the failure to hire any individual, and no such seniority system or employee benefit plan shall require or permit the involuntary retirement of any individual specified by section 631(a) of this title because of the age of such individual; or
  \item[(3)] to discharge or otherwise discipline an individual for good cause.
\end{itemize}

\textsuperscript{29} \textit{29 U.S.C.} § 623(f).

\textsuperscript{29} Kasperzak, \textit{supra} note 6, at 251 n.93.
The Supreme Court Glances Over the Rule: Western Airlines Inc. v. Criswell

The United States Supreme Court analyzed the Age-60 Rule in light of the ADEA in Western Airlines Inc. v. Criswell, wherein two airline pilot captains over the age of sixty brought suit against their employer, Western Airlines, after Western denied each pilot's application for reassignment to the position of flight engineer. Under a collective bargaining agreement between Western and the pilots' union, members of the cockpit crew could obtain open positions through a bidding process wherein preference was to be given to senior members of the cockpit crew. The pilots sued on the ground that Western violated the ADEA by applying the Age-60 Rule to the position of flight engineer. At trial, the jury rendered a verdict in favor of the pilot plaintiffs. The district court noted that although the flight engineer plays a critical role in emergency situations, the flight engineer's "normal duties" are not as crucial to flight safety as those of the pilot. Furthermore, the court granted the plaintiffs equitable relief, noting that it found no merit in Western's BFOQ defense to its adherence to the mandatory retirement rule.

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31 Id. at 405. A career flight engineer forced to retire on his sixtieth birthday was also among the named plaintiffs seeking damages on similar grounds. Id.
32 Id. at 404.
33 Id. at 405-06. In its opinion, the Supreme Court outlined the respective duties of the members of the cockpit crew of the Boeing 727 and the McDonnell-Douglas DC-10:

These aircraft [the Boeing 727 and the McDonnell Douglas DC-10] require three crew members in the cockpit; a captain, a first officer, and a flight engineer. The "captain" is the pilot and controls the aircraft. He is responsible for all phases of its operation. The "first officer" is the copilot and assists the captain. The "flight engineer" usually monitors a side-facing instrument panel. He does not operate the flight controls unless the captain and the first officer become incapacitated.

Id. at 403 (quoting Trans World Airlines, Inc. v. Thurston, 469 U.S. 111, 114 (1985)).
34 Id. at 406.
35 Id. at 408. Specifically, the trial court instructed the jury "that the 'BFOQ
The court of appeals affirmed the decision, specifically rejecting Western’s contention that “the instruction on the BFOQ defense was insufficiently deferential to the airline’s legitimate concern for the safety of its passengers.” The United States Supreme Court granted certiorari to consider the merits of Western’s contention.

In its analysis, the Supreme Court reviewed much of the legislative history of the original ADEA as well as the amendments added in 1978, noting that the policies and substantive provisions of the ADEA apply with special force in the case of mandatory retirement provisions. The Court quoted a task committee on education and labor report with approval, noting:

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. Mandatory retirement does not take into consideration actual differing abilities and capacities. Such forced retirement can cause hardships for older persons through loss of roles and loss of income. Those older persons who
wish to be re-employed have a much more difficult time finding a new job than younger persons.

Society, as a whole suffers from mandatory retirement as well. As a result of mandatory retirement, skills and experience are lost from the work force resulting in reduced GNP. Such practices also add a burden to Government income maintenance programs such as social security.99

Importantly, the Court also recognized that classification based on age could sometimes serve as a necessary proxy for neutral employment qualifications essential to an employer's business.40 To account for such situations, the Court noted, Congress borrowed a concept from Title VII of the Civil Rights Act of 196441 which provides that such a classification is lawful where age is a BFOQ.42 The Court emphasized, however, that the Secretary of Labor and the Equal Employment Opportunity Commission (EEOC) declared that the BFOQ exception to the ADEA should be limited as to its scope and application and construed narrowly.43 Accordingly, the Supreme Court adopted such a narrow construction.

The Court noted that as the party asserting an affirmative defense, the employer has the burden of proving the applicability of the BFOQ exception in age-based employment discrimination cases.44 For purposes of evaluating a BFOQ defense to an age-based qualification purportedly justified by safety considerations, the Supreme Court adopted the two-part test enunciated by the Fifth Circuit Court of Appeals in Usery v. Tamiami Trail Tours, Inc.45 The first prong of the two-part test requires an employer to objectively show that any discriminatory hiring practices are reasonably necessary to the essence of the em-

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40 Id. at 411.
42 Criswell, 472 U.S. at 412.
43 Id.
44 Id. at 416 n.24.
45 Id. at 416-17 (citing Usery v. Tamiami Trail Tours, Inc., 531 F.2d 224 (5th Cir. 1976)).
ploys his business. In businesses where safety is a major consideration (as measured by the likelihood and severity of harm in the event of an accident), an employer may require restrictive job qualifications in order to further the interest of public safety.

The second prong of the test "requires that age qualifications be something more than 'convenient' or 'reasonable'; they must be 'reasonably necessary... to the particular business' and this is only so when the employer is compelled to rely on age as a proxy for the safety-related job qualifications validated in the first inquiry." The second prong of the test can itself be met in one of two ways. First, the employer can meet the burden by establishing it has a factual basis for believing that substantially all persons over a specified age would not be able to perform the duties of the job in a safe and efficient manner. Alternatively, the employer can also establish that age serves as a legitimate proxy for the safety-related job qualification by showing that it is "impossible or highly impractical" to consider each older worker on an individual basis.

Having adopted the two part test as prescribed by the court in Tamiami Trail Tours, Inc., the Supreme Court affirmed the appellate court's decision. Significantly, the Court rejected Western's contention that because flight engineers must meet the same stringent qualifications as pilots, Western could rightfully extend the FAA's Age-60 Rule to include flight engineers. The Court stated that

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46 Id. at 413.
47 Id.
48 Id. at 414 (quoting Weeks v. Southwestern Bell Tel. & Tel., 408 F.2d 228 (5th Cir. 1969)).
49 Id.
50 Id. With regard to meeting the second alternative, the Supreme Court further noted: "[O]ne method by which the employer can carry this burden is to establish that some members of the discriminated-against class possess a trait precluding safe and efficient job performance that cannot be ascertained by means other than knowledge of the applicant's membership in the class." Id. at 414-15 (quoting Tamiami Trail Tours, 531 F.2d at 235).
51 Id. at 418.
"[t]he extent to which the rule is probative varies with the weight of the evidence supporting its safety rationale and ‘the congruity between the . . . occupations at issue.’"52

Having noted that the evidence clearly established that Western, as well as the FAA, recognized that the qualifications for a flight engineer are less rigorous than those required for a pilot,53 the court upheld the lower court’s decisions.54

Recent Developments in the Law: Where We Are Going

The Age-60 Rule celebrated its thirtieth birthday in 1990. Just how many more birthday celebrations the Age-60 Rule will enjoy is not certain in light of several recent developments which may further limit the purview of the regulation or perhaps eliminate it altogether.

On October 19, 1989, Congressman James Lightfoot (R-Iowa) introduced a bill which would raise the mandatory retirement age of pilots to age sixty-five.55 The bill proposes to amend section 602(b) of the Federal Aviation Act of 195856 by adding the following paragraph to the end of the Act’s current provisions:

(3) Limitation on Age Restrictions. — The Administrator shall not, solely by reason of the age of a person, if such person is less than 65 years of age —

(A) refuse to issue an airman certificate to, or refuse to renew such certificate for, such person, if such person is applying for the issuance or renewal of such certificate in order to serve or continue to serve as a pilot of an aircraft; or

(B) require an air carrier to terminate the employment of, or refuse to employ, such person as a pilot on an aircraft of such air carrier.57

52 Id. (quoting Johnson v. Mayor of Baltimore, 472 U.S. 353, 371 (1985)).
53 Id.
54 Id. at 423.
57 H.R. 3498.
The OTA Report and its Impact

After Lightfoot introduced this legislation, the House Public Works and Transportation Investigations and Oversight Subcommittee requested that the Office of Technology Assessment (OTA) review the medical aspects pertaining to the Age-60 Rule. The OTA responded by preparing a report, released by the House Committee on Public Works and Transportation in mid-September 1990. Importantly, the report reaches no conclusion as to whether the Federal Aviation Administration should abandon its controversial Age-60 Rule. Rather, the report merely discusses several key areas impacting the aviation industry, including statistical data regarding pilot performance and age, various medical screening technologies, and the cost of such medical programs.

One interesting point noted in the report is the relationship between pilot age and the number of aviation accidents attributed to pilots within specific age categories. The report compares the accident rates of pilots in age groups divided into ten-year intervals. Importantly, the report concludes that "[p]ilots between the ages of 60 and..."

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59 Office of Tech. Assessment, Medical Risk Assessment and the Age 60 Rule for Airline Pilots (1990) [hereinafter OTA REPORT].
60 Bradley, supra note 58, at 1.
61 OTA REPORT, supra note 59, attachment 1 (technical analysis by Robert McDonough, M.D.).
62 Id. fig. 3. Specifically, the number of accidents per 100,000 pilot hours is compared to pilots in the age intervals of 17-19, 20-29, 30-39, 40-49, 50-59, 60-69, and 70 and over. Id. The data is further analyzed by graphing the accident rates corresponding with three varying levels of recent pilot experience: 51-100 hours/year; 101-400 hours/year; and 401 hours and above. Id. The data demonstrate that:

[i]tthe beneficial effect of recent flying experience exists at all levels, but there is no interaction with age in pilots flying less than 100 [hours per year]. In pilots who fly more than 100 [hours per year], increasing age (and probably total experience) and increased recent flying time both have beneficial effects. After the age of 60, accident rates increase even if pilots continue to fly over 400 hours per year.

Id.
69 years have an accident rate that is 2.1 times higher than the accident rate for the 50 to 59 year olds, but lower than for pilots in the 30 to 39 year old and 20 to 29 year old age groups.\footnote{63}

But what causes these aviation accidents to occur? One study, conducted by the National Transportation Safety Board (NTSB), indicated that failures in pilot or co-pilot performance were implicated in 40% of a total of 434 accidents occurring between 1968-1970 and 63% of the fatal accidents that occurred during that same time period.\footnote{64} In fact, in the majority of accidents in which failure of pilot performance constituted a causative factor of the accident, mental error, as opposed to medical impairment or incapacitation, was to blame.\footnote{65}

Interestingly, in cases where pilot impairment or incapacitation actually occurs, no single cause is attributable to such impairment or incapacitation. In fact, of the 67 episodes of pilot incapacitation which occurred on United States air carriers during the period from 1965-1974, the causes of only 33 are known.\footnote{66} Of the known causes, cardiovascular disease accounted for twelve episodes of incapacitation, while gastroenteritis accounted for six.\footnote{67} With respect to general aviation pilots, alcohol accounted for approximately 70% of the episodes of incapacitation or impairment for which there was a known cause, while cardiovascular disease accounted for one-third of the non-

\footnote{63} Id. attach.1 (technical analysis by Robert S. McDonough, M.D.).

\footnote{64} Id. at 2.

\footnote{65} Id. at 2-3. The report also notes that:

[a] study detailing the types of failures in pilot performance that contributed to accidents showed that they were due to decision and judgment factors such as failure to follow approved procedures and directives, failure to see and avoid other aircraft, attempted operation with known deficiencies in equipment, and various other misjudgments and misperceptions.

\footnote{66} Id. at 3.

\footnote{67} Id. The remaining causes of the episodes of incapacitation can be broken down as follows: convulsive seizures - five episodes; kidney stone attack - four episodes; "faintness" - two episodes; and chest pain, sinus attack, cervical strain, and pneumonia attack each accounting for one episode of incapacitation. Id.
alcohol related episodes of incapacitation or impairment.\textsuperscript{68}

The report also demonstrates that medical illness among pilots increases with age. This conclusion is based on the annual "denial rates" for airline pilot medical certification.\textsuperscript{69} In 1987-1988, the annual denial rate for airline pilots ranged from a rate of 1.0 per 1,000 in the 25-29 age group to 16.2 per 1,000 in the 55-59 age group.\textsuperscript{70} The report indicates that the majority of denials of medical certification are due to cardiovascular and neuropsychiatric diseases, which include convulsive reactions, disturbances of consciousness, neuroses, alcoholism and the like.\textsuperscript{71} Although these diseases rarely result in disqualification before the age of forty-five, the denial rate increases significantly thereafter.\textsuperscript{72}

The OTA Report also makes specific reference to a congressionally mandated study (1981 Report) of the Age-60 Rule completed by the National Institute of Aging (NIA) in August, 1981.\textsuperscript{73} For purposes of the 1981 Report, the NIA commissioned the Institute of Medicine of the National Academy of Sciences (IOM) to study the merits of the Age-60 Rule.\textsuperscript{74} Although the NIA panel recommended that the FAA retain the Age-60 Rule, the NIA did suggest that the FAA or another federal agency collect and analyze medical and performance data in order to de-

\textsuperscript{68} Id.
\textsuperscript{69} Id. FAA regulations state:
Any person who is denied a medical certificate by an aviation medical examiner may, within 30 days after the day of denial, apply in writing . . . for reconsideration of that denial. If he does not apply for reconsideration during the 30-day period after the date of the denial, he is considered to have withdrawn his application for a medical certificate.
\textsuperscript{70} \textit{OTA Report}, supra note 59, at 3-4.
\textsuperscript{71} Id. at 4. Such diseases account for over 60 percent of the denials for medical certification. Id.
\textsuperscript{72} Id.
\textsuperscript{73} Id. at 4.
\textsuperscript{74} Id.
termine whether the Age-60 Rule could be relaxed. The FAA, however, ultimately decided to leave the Age-60 Rule untouched.

Suggestions In the OTA Report

Nevertheless, the OTA made several suggestions (which are detailed in the report) as to how the various medical examinations required for Class I pilot certification may be improved in light of recent advances in medical standards and diagnostic technology. The OTA’s suggestions are intended to supplement those recommendations made by the IOM in 1981. The OTA Report specifically states:

Any changes that are ultimately made in the medical certification standards must be determined by weighing a number of factors, including FAA’s mandate to provide the highest standard of airline passenger safety, the costs of a more complete medical examination process (including the costs of follow-up of positive screening test results), the risks to pilots inherent in screening (such as radiation exposure from radiographic examinations), and the predictive value of a screening test in a largely asymptomatic population with low prevalence of disease.

Of particular note are the OTA’s recommendations as to the testing of the mental status of a pilot. Currently, FAA regulations set forth various mental and neurological disorders which may prohibit a pilot from obtaining the necessary medical certification. The report recom-

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75 Id. at 5.
76 Id. at 6.
77 Id.
78 Id.
79 See 14 C.R.R. § 67.13(d)(1991). With respect to debilitating mental condi-
mends the implementation of formalized testing of the cognitive function, while also suggesting that the "FAA develop and validate neuropsychiatric tests that can more readily detect more subtle age-related decrements in cognitive function that may interfere with pilot performance. These tests would be administered by clinical psychologists who are skilled at test administration, scoring, and interpretation."^80

When addressing the neuropsychological impairments of pilot performance, the OTA Report recognizes that advances in technology have occurred in recent years which have substantially improved the ability of experts to detect conditions which might affect pilot performance.^81 Importantly, however, the OTA concluded that because the majority of failures in pilot performance are due to pilot error as opposed to pilot impairment and incapacitation due to medical illness, the suggested improvements in screening for medical illnesses affecting pilot performance would have a limited impact on the pilot accident rates.^82 The OTA Report strongly states that "[e]ven assuming that we [the OTA] were able to organize a battery of tests that would perfectly predict the risk of developing medical illnesses that would have incapacitation and impairment, this would have a small impact on pilot accident rates."^83 In making this conclusion, the OTA relies on the

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^80 OTA Report, supra note 59, at 10.

^81 Id. at 11.

^82 Id.

^83 Id.
data demonstrating an increase in accident rates in the over-60 age group as compared to the 50-59 year old age group, which, according to the OTA, "suggest[s] that the increase in accident rates in the over-60 age group may be due to a subtle age-related deterioration in cognitive function (information processing and intellectual functioning) that is of sufficient severity to interfere with pilots' performance and outweigh gains in experience in this group."84 Thus, the OTA recommends the development of neuropsychological tests designed to detect decrements in cognitive performance which must be validated as a gauge of future pilot performance.85

Should all of the tests recommended by the OTA be given at the specified intervals, the OTA estimates that an additional cost of $714 per pilot tested would be incurred each year.86 The report also discusses the costs of confirming and following up those tests yielding positive results.87 The costs of such follow up of positive test results, the OTA estimates, would likely more than double the costs of screening.88

84 Id. The report states that: "Component processes that may influence function include memory, increased time to process information, motor reaction time, attention, judgment and decision-making capacity, problem-solving, intellectual capacity, abstract thinking, learning new skills, control of impulses and emotions, and personality and character changes." Id.
85 Id.
86 Id. at 11-12.
87 Id. at 12. The report also notes:

[O]ne would expect a larger proportion of erroneous positive screening results for screening tests performed on an asymptomatic population than for a population of individuals with signs and symptoms suggestive of disease. Moreover, the inherently adversarial nature of the medical certification process provides a disincentive for pilots to admit symptoms. Id.
88 Id. The report further reveals several other economic issues which are not addressed in detail by the OTA. Such issues include:

Training - Every pilot promotion or retirement has multiple effects on training within an airline. For example, if a pilot flying an airline's largest aircraft leaves, the airline must provide additional training to each pilot that moves up to a different aircraft. The multiplying effect in this case is at least as large as the number of aircraft types in the airline's fleet.
The Age-60 Rule Faces the Courts

In addition to the legislation sponsored by Congressman Lightfoot, the Age-60 Rule has recently been under attack in the courts. A serious challenge was mounted in two interrelated Seventh Circuit cases, *Aman v. FAA* and *Baker v. FAA*. Although the Age-60 Rule survived this most recent judicial scrutiny, the Rule is now arguably in its weakest and most vulnerable state since its enactment in 1960.

In *Aman*, twenty-eight pilots, each employed by a major airline as either a captain or a flight engineer, appealed an FAA decision denying their petition for exemption from the Age-60 Rule. The FAA originally denied the requested exemptions on September 8, 1987, "finding that [the] granting [of] individualized exemptions under the petitioners' standards would not ensure the level of safety

Salaries - Senior pilots have significantly higher salaries than junior pilots.
Labor contracts - Pilots' union retirement (and other collective bargaining) agreements are based on mandatory end of pilot service at age 60.
Legal action - Some pilots disqualified by new screening procedures may sue on the basis of discrimination especially if the new tests have high error rates.

*>Id.* 856 F.2d 946 (7th Cir. 1988).

>90 917 F.2d 318 (7th Cir. 1990), cert. denied, 111 S. Ct. 1338 (1991).

>91 Importantly, the pilots' petition for exemption included recommendations from a six-member "Age 60 Exemption Panel" comprising five physicians and a psychologist with impressive qualifications in the fields of cardiology, aerospace medicine, and neuropsychology. The panel devised an extensive battery of physiological and psychological tests as a basic protocol for assessing the fitness of pilots over the age of sixty. In the petition to the FAA, the panel stated that this protocol, if properly administered and supplemented, where appropriate, by additional medical tests and by the existing operational tests required by the FAA and the airlines (such as flight simulator testing), provided an adequate basis for exempting some older pilots from the age sixty rule.

*Aman*, 856 F.2d at 949.

>92 *Id.* Interestingly, upon publishing a summary of the pilots' Petition for Exemption, the FAA received "over 180 submissions from physicians, scientists, Congressmen, pilots, professional organizations, companies and the FAA itself" in response to the FAA's invitation for public comment. *Id.*
achieved by uniform enforcement of the age sixty rule."93

Upon review, the Aman court divided the pilot-petitioners' argument into two separate claims.94 The first claim pertained to the pilots' argument that pilots over sixty who meet "the psychological and medical standards of the petitioners' protocol, as well as FAA and airline operational testing standards, are no more likely to cause accidents due to sudden incapacitation or undetected deterioration of piloting skills than are pilots below the age of sixty."95 The court noted that such a claim required the pilots to show that "the FAA lacked substantial evidence for a finding that strict enforcement of the age sixty rule reduces age-related risks of incapacitation and undetected deterioration of piloting skills."96

In defense of the Age-60 Rule, the FAA argued that age-related deterioration in skills and the corresponding increased risks of incapacitation and error could not be entirely screened out, even if the FAA coupled the suggested health protocol with the existing operational tests.97 The court noted the large number of sources cited by the FAA supporting the enforcement of the Age-60 Rule, including expert testimony indicating the heightened risk of physical deterioration among pilots which occurred during the time span between the required biannual medical examinations.98 The court then reviewed the existence of evidence supporting the proposition that neither the protocol set forth by the pilots nor the operational tests conducted by the airlines and the FAA were

93 Id.
94 Id.
95 Id.
96 Id. In order to meet the "public interest standard" as set forth in the Federal Aviation Act, the Aman court recognized the FAA's burden to identify some reduction in air carrier safety due to strict enforcement of the Age-60 Rule. Id.
97 Id. The court specifically noted the FAA's assertion that "because the likelihood of sudden death, disability, or incapacitation due to previously undetected disease increases at an accelerating rate with each additional year of chronological age, granting exemptions would compromise, by some amount, the current level of safety." Id. (quoting FAA Denial of Exemption, No. 25,008 at 13 (Sept. 8, 1987)).
98 Id. at 952-53.
capable of identifying or predicting the potential significant losses on flying skills.99

After evaluating the evidence supporting the FAA's contentions, the Aman court addressed the pilots' "support for the contrary view that modern testing methods can eliminate the risks associated with incapacitating illness and the loss of essential skills."100 In addition to the opinions rendered by the Age 60 Exemption Panel, the pilots offered testimony from doctors, pilots, and other organizations which supported the exemptions.101 After considering this evidence in light of the evidence submitted by the FAA, the court stated that, with respect to whether the requested exemptions would add any risk of incapacitation or error due to the deterioration of piloting skills, substantial evidence supported the FAA's conclusions.102 The court then concluded, with respect to the

99 Id. at 953. In particular, the FAA relied upon the statement of a NASA scientist specializing in research on human performance in flight, "who found no evidence that objective reliable tests of cognitive function in a rich and rapidly changing environment exist, let alone that they have been applied to or validated in a pilot population of any age." (emphasis in original). Id.

100 Id.

101 Id. at 953-54. The court also noted the pilots' criticism of the "methods, analyses, and in some case,[sic] motives of the sources upon which the FAA relied." Id. at 954. The court also acknowledged the pilots' claims "that the FAA's position with respect to the fitness of pilots over sixty has been shaped by improper influences." Id. at 954 n.7. In the submission to the court, the pilots suggested that the original [age sixty] rule may have been tainted by ex parte communications between the FAA Administrator and the president of a major airline, . . . that the FAA's abandonment of the 1982 proposal to study the age sixty rule through selective exemptions was influenced by ex parte communications with the Air Line Pilots Association and that the FAA's strict adherence to the age sixty rule since 1960 reflects the FAA's hidden agenda - a concern for airline costs rather than for passenger safety.

Id. Describing the pilots' claims as "thinly veiled allegations," the court noted that the pilots had not proffered any factual support for the claims, other than some handwritten notes taken by Frank Austin, written while Austin served as Federal Air Surgeon, which characterizes "the rule as 'operational' or 'economic' rather than medical." Id.

102 Id. at 954. Although the court held in favor of the FAA on the pilots' first claim, the court emphasized that "[w]ere we to conduct a de novo review of the docket, we might conceivably side with the petitioners. But [that] is not our job." Id.
pilot's first claim, that, "[w]hen the question is whether the petitioners' protocol eliminates all of the incremental risk associated with sudden incapacitation or undetected deterioration of skills among pilots over sixty, a substantial body of medical opinion continues 'to doubt the feasibility' of the project."\(^{103}\)

In their second claim, the pilot-petitioners asserted that an exemption must be granted because older pilots who satisfy the protocol and existing operational tests are more experienced and, hence, safer than the average pilot.\(^{104}\) With respect to this claim, however, the court emphatically stated: "[W]e find the FAA's rejection of the petitioners' position far less persuasive."\(^{105}\)

In its analysis, the court immediately noted the limited amount of attention given this second claim by the FAA. The court commented that the FAA's discussion of the issue was considerably less than the response to which the pilots were entitled.\(^{106}\) Noting the lack of evidence sup-

\(^{103}\) *Id.*

\(^{104}\) *Id.* at 954-55.

\(^{105}\) *Id.* at 954.

\(^{106}\) *Id.* at 955. Specifically, the court emphasized that the FAA limited its discussion of the effect of pilot experience on air safety and the Age-60 Rule to only two paragraphs of the FAA's order denying the pilots exemption. The court quoted the order as follows:

"The petitioners have failed to show that what they request is in the public interest. The FAA does not agree that it is in the public interest to [project that] an increase in safety will result from the use of [the pilot-petitioners'] services as pilots beyond age 60, thereby outweighing the potential safety hazard to the public from increased risk of an incapacitation and diminished performance. Petitioners argue that the loss of experienced pilots to the airlines because of retirements mandated by the Age 60 rule is resulting in a shortage of pilots which is forcing the airlines to lower their standards and to hire less experienced and qualified pilots. Thus, petitioners argue that granting exemptions to the Age 60 rule would ease this shortage and increase the level of safety. However, the exhibits presented by the petitioners in support of this argument make it clear that current lowering of minimum experience requirements at some airlines is the result of a number of factors; including fewer civilian pilot trainees, fewer pilots leaving the military, increasing numbers of senior pilots retiring voluntarily before age 60, and the expansion of the airlines after deregulation."

*Id.* (quoting FAA Denial of Exemption, No. 25,008 at 11).
porting the FAA's dismissal of the pilots' petition, the court properly stated that the FAA failed "to present findings of fact supported by substantial evidence (or even by the presumably lesser quantum of evidence required to avoid arbitrariness and capriciousness) or to identify the governing principles and set forth a 'rational connection between the facts found and the choice made'."\textsuperscript{107}

In reaching this conclusion, the court analyzed a wealth of evidence offered by the pilots, including several comparisons of accident rates attributed to various age groups for pilots with commercial and air transport certificates.\textsuperscript{108} Admittedly, the court recognized that the data presented did not make an "airtight" case for the pilots. Yet, the court did emphasize that

the comparisons are at least suggestive; they warranted something more than the FAA's summary dismissal of the experience argument as based on mere supposition. The FAA [did] address the petitioners' claim that rigid enforcement of the age sixty rule reduces the average experience level among active pilots. But [the FAA's] observation that other factors have contributed to an overall decline in experience has no apparent connection to the effect on safety of refusing exemptions to particular older pilots.\textsuperscript{109}

Accordingly, the court deemed the FAA's consideration of the pilots' petition "incomplete," noting the FAA's failure to state any factual or legal basis in support of its rejection of the pilots' claim that the increased level of experience of the older pilots offsets the existence of any undetected physical losses.\textsuperscript{110} Thus, the court vacated the FAA's denial of the pilots' petition and remanded the case

\textsuperscript{107} Id. (quoting Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962)).

\textsuperscript{108} Id. The court noted: "These data show below average accident rates for pilots in the 55-year old to 59-year old age group and the 60-plus group (a group that presumably piloted only flights not subject to the age sixty rule)." Id.

\textsuperscript{109} Id.

\textsuperscript{110} Id. at 957. Interestingly, the court recognized the FAA's "increased willingness in recent years to issue 'special' medical certificates . . . to pilots otherwise disqualified by episodes of heart disease or alcoholism," notwithstanding the FAA's consistent refusal to grant pilots exemptions from the Age-60 Rule. Id.
to the FAA for further proceedings to provide findings and explanations addressing the deficiencies noted by the court.\textsuperscript{111}

Following the \textit{Aman} court's decision, the pilot-petitioners supplemented their initial petition with additional exhibits and authorities.\textsuperscript{112} In fact, over 200 scientists, physicians, aviation industry officials, pilots, and other interest organizations and individuals submitted comments to the reopened public docket.\textsuperscript{113}

Despite the new evidence, the Director of Flight Standards Service, acting on behalf of the FAA, denied the pilots' petition for exemptions on May 26, 1989.\textsuperscript{114}

In the denial, the FAA considered the pilots' argument that the experience of pilots over the age of sixty ou-

\textsuperscript{111} Id.

\textsuperscript{112} Brief for Baker at 6, Baker v. FAA, 917 F.2d 318 (7th Cir. 1990) (No. 89-2524), \textit{cert. denied}, 111 S.Ct. 1388 (1991) [hereinafter Petitioner's Brief]. The procedural history of the case merits some review. Subsequent to the submission of the original petition (under examination in \textit{Aman v. FAA}), Melvin Aman withdrew his name as a petitioner. \textit{Denial of Exemption at 1}, In the matter of Courtney Y. Bennett, and John H. Baker, FAA Nos. 25,008 and 25,524 [hereinafter Denial of Exemption].

\textsuperscript{113} Petitioner's Brief, \textit{supra} note 112, at 6. The petitioners contended that the evidence submitted demonstrated that:

1. In aviation, pilot experience enhances safety and, conversely, inexperience has been responsible for fatal accidents;
2. The surge of forced retirements at age sixty has been responsible, in part, for a shortage of qualified experienced airline pilots and a reduction in overall airline cockpit experience levels;
3. Aviation industry experts overwhelmingly and unanimously supported the view that experience is a critical factor in airline safety, for which there is no substitute;
4. Aviation accident statistics show that accidents decrease with increasing age in airline operations and with increasing age and experience in general aviation;
5. FAA's increasing use of special exemptions to permit pilots with serious disabilities, who are under age 60, to return to airline flying strongly supports permitting pilots over age 60 with no known disabilities to continue their service;
6. Petitioners' medical/psychological testing protocol, developed by a qualified medical panel of experts, was unchallenged by the scientific and medical community in its ability to screen pilots over sixty years of age; and
7. Advances in medical science, generally and as they pertain to airline pilots, strongly support exemptions from the age 60 rule.

\textsuperscript{114} Id.

\textsuperscript{115} Denial of Exemption, \textit{supra} note 112, at 33.
weighed any increase in the risk of accidents due to pilot incapacitation or deterioration of skills with age. The FAA quickly dismissed this argument, however, claiming that any conclusions drawn from the data relied upon by the pilots were "suspect." The FAA further stated that in spite of the advances in medical diagnosis, treatment and prevention, some mental, psychomotor, emotional, intellectual, and physical attributes necessary for enhanced flight crew performance nonetheless decline with advancing age. The FAA contended that despite any potential individual exceptions, the available data demonstrated that the general population displayed an increasing rate of disability and death as a result of physical changes and disorders attributable to increasing age.

The agency also stated that the aging process involves a vast number of variables, resulting in a high degree of unpredictability and immeasurability. Hence, according to the agency, the question of operating privileges for pilots age sixty and over is not comparable to the question of assessing younger airmen with specific medical conditions. The FAA claimed that the medically-exempt younger pilots are not comparable to the sixty-and-over pilots, as the person with the known disease can be tested and assessed in order to identify and monitor a medical condition. Accordingly, granting special medical exemptions to pilots does not compromise safety and does not demand similar consideration with respect to the Age-60 Rule. The agency alleged that exemptions are only granted where specific medical conditions have been identified, and only after the agency has been able to develop a means of assessment and surveillance specifically designed to indicate the individual pilot's capabilities and

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115 Id. at 31-32.
116 Id. at 31.
117 Id. at 31-32.
118 Id. at 32.
119 Id.
120 Id.
121 Id.
to identify any adverse changes. Medical certification is not granted in situations where this is not possible.\textsuperscript{122} The FAA concluded that such was not the case with aging. The agency reasoned that medical tests that could adequately determine which individual pilots are prone to either acute cardiovascular or neurologically induced incapacitation or to any subtle adverse conditions related to cognitive functioning are not presently available.\textsuperscript{123} Hence, finding that the pilots had failed to provide substantiation for the granting of exemptions, the FAA denied the pilots' petition for exemption.\textsuperscript{124}

\textsuperscript{122} Id.
\textsuperscript{123} Id.
\textsuperscript{124} Id. at 32-33. As a foundation for its conclusion, the FAA relied heavily upon the controversial "Flight Time Study" - an aviation accident experience analysis broken down into specific age categories. Id. at 22. The data used in the Flight Time Study covered the period 1976-1980. Id. According to the FAA, the Flight Time Study "data base contains over 3 million 'pilot years' of flying during which some 300 million pilot hours were flown. In that period, over 20,000 general aviation accidents occurred, reports for the vast majority of which (perhaps 90 percent) contained the flight time data required for the study." Id. Even though it relied heavily upon the Flight Time Study, the FAA recognized several sources of potential inaccuracy, including the fact that the "accident rates in the 'Flight Time Study' are understated by some 10 percent and are not directly comparable from one category to the next." Id. at 23. The FAA also noted that annualization of recent flight time data may also give rise to errors. For example, a class 3 medical certification application records flight time in the past 6 months. These flight hours are first doubled to approximate a year's time and then redoubled since only half the pilots holding class 3 medical certification were recertified that year. An accident record, on the other hand, records flight time in the past 90 days and is quadrupled to obtain an estimate of the most recent annual flight time by that pilot.

\textit{Id.} Finally, the FAA recognized another weakness in that the pilot medical certification application flight data, upon which it relied for the Flight Time Study, were completely self-reported and not validated for the issuing official. \textit{Id.} The FAA commented:

These estimates are almost surely in error to some degree, though it is difficult to see why they would substantially bias any study of accident rates as a function of age. As shown in the "Flight Time Study" these data are more accurate than the minimum needed, although comparison of age-specific accident rates calculated on the basis of the recent flight time data subset will yield marginally different values when compared with rates based on the total flight time data subset.

\textit{Id.} Thus, despite these known areas of potential error, the FAA nonetheless re-
The Seventh Circuit Reviews the Age-60 Rule Again: Baker v. FAA

On July 21, 1989, thirty-one of the pilot-petitioners filed a Petition of Review in the United States Seventh Circuit Court of Appeals. On appeal, the petitioners alleged that the FAA's denial of exemptions was not supported by substantial evidence. Among their seemingly very valid arguments, the petitioners, in particular, attacked the FAA's use of the Flight Time Study as the foundation for its denial. The petitioners' contentions

lied upon the results of the Flight Time Study in denying the pilots' petition for exemption.

In the Denial of Exemptions, the FAA stated that the results of the Flight Time Study indicated that the lowest accident rate among pilots was that attributable to pilots age 40-49, and that a "dramatic increase" in the risk of accident was seen for pilots age 60-69. An analysis of the data, the FAA stated does not support petitioner's claim that experienced pilots beyond the age of 60 have a low accident rate. In fact, their accident rate is substantially higher than any younger age of similarly experienced pilots who maintain medical certification which makes them eligible to fly for the airlines. This analysis, while not solving the problem of why this group of pilots experiences a higher rate of accidents, does show that (for the period between 1976 and 1980) very experienced pilots over the age of 60 who have obtained class 1 or class 2 medical certification do experience substantially more accidents for each hour they fly than younger pilots.

The Flight Time Study calculates accident rates in United States general aviation by dividing the number of aircraft accidents in general aviation for the years 1976-1980 by the number of hours flown by pilots. Accident data were received from the National Transportation Safety Board's database, but excluded all accidents in air carrier and commuter operations, the types of operations engaged in, or most comparable to those engaged in, by petitioners. Flight Time data were collected from "self-reported" pilot flight time submitted on FAA medical examination forms. The data were reported for holders of FAA pilot medical certificates for Class I (airline transport, examinations taken every six months), Class II (commercial pilot, taken every year), and Class III (general aviation and student pilot, taken every two years). The accident rates reported were for various age and experience levels and were broken down by pilots'
regarding the use of the Flight Time Study were twofold: (1) the portion of the report relied on by the FAA to show an increase in the pilot accident rate above age sixty was fatally flawed due to artificially depressed accident rates for pilots below the age of sixty; and (2) the report as a whole in fact showed a general decrease in pilot accident rates with increasing pilot experience, and thus actually supported the pilots’ request for exemption from the Age-60 Rule.127

With respect to the Flight Time Study, the pilot-petitioners claimed that the data used in calculating the accident rates for the pilots was “fatally flawed.”128 In fact, the pilots alleged that the Flight Time Study reveals this fatal flaw itself, as it acknowledges that airline and commuter pilots’ accidents were excluded from the data compilation, yet air carrier flight time was included.129 The pilots alleged that the effect of including non-general aviation flight time in a study devoted exclusively to general aviation was to substantially reduce the accident rates for all groups reporting such airline pilot hours. Since there are no airline pilots over sixty years of age because of the Age-60 rule, only the accident rates for Class I and Class II pilots under age sixty are understated.130 Importantly, petitioners indicated that even the author of the Flight Time Study recognized the statistical discrepancy caused by including non-general aviation flight time in the denominator used to calculate the accident rate of pilots under the

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"Total Flight Time" (cumulative lifetime experience), "Recent Flight Time" (estimated annual hours flown), and "Total and Recent Flight Time."  

Id. at 10.  
127 Id. at 9-10.  
128 Id. at 13.  
129 Id. The petitioners alleged that over 95 million pilot hours of the total 300 million pilot hours represents the airline carrier flight time. Id.  
130 Id. Petitioners noted that the accident rates for pilots under the age of 60 are calculated as the number of accidents in general aviation divided by the flight time in general aviation plus air carrier operations. Id. at 14. Petitioners further noted that while the accident rate for pilots over the age of 60 was calculated using the same numerator (number of accidents in general aviation), the denominator used presented only the flight time in general aviation. Id.
age of sixty.\textsuperscript{131} Thus, because of this "fatal flaw" in the study, the petitioners alleged that the accident rate among pilots over age sixty is vastly overstated in relation to the rates of the younger age groups, and that the FAA's reliance upon and interpretation of the Flight Time Study could afford no basis for denying exemption from the Age-60 Rule.\textsuperscript{132}

The petitioners further contended that if the "fatal flaw" in the Flight Time Study was disregarded, the report in fact supports the granting of exemptions from the Age-60 Rule.\textsuperscript{133} In support of this contention, petitioners noted that: (1) accident rates declined with age if the flawed groupings - those sixty and over - were disregarded; (2) dramatic reductions in accident rates occur at all ages with increasing pilot experience; (3) in the only class of general aviators not affected by the flaw in the study, accident rates actually decreased with age; and (4) by removing the flaw from the study, the accident rate for general aviation pilots holds with age.\textsuperscript{134} Thus, the pilots alleged that the "fatal flaw" in the data used in the Flight Time Study is in fact fatal to the FAA's argument.

Despite the pilot-petitioners seemingly persuasive argu-

\textsuperscript{131} Id. Specifically, petitioners quoted the author as stating:
A fourth limitation to the data used [in the Flight Time Study] was the inability to isolate only pilot hours flown in general aviation for the assignment of accidents and hours flown to the classes used in the study. For example, some air carrier pilots are engaged in personal flying in general aviation aircraft. It was impossible to account for this and other similar factors. Thus, as noted above, the absolute accident rates presented [in the Flight Time Study] are understated.

\textsuperscript{132} Id. at 14. Interestingly, petitioners noted:
If all the accident rates in the report were reduced by the inclusion of the same extraneous flight time in the denominator of the risk equation, the relative rates among the age groups might still provide useful comparative data. Thus, the accident rates for pilots in their 50's may still be compared to the younger age groups, because their rates are all understated. In this regard, it is significant that the accident rate for the age group 50-59 is essentially equal to the age group 40-49 — the safest of all age groups.

\textsuperscript{133} Id. at 14 n.15.

\textsuperscript{134} Id. at 15-17.
ments the Seventh Circuit Court of Appeals rejected petitioners' claims and affirmed the FAA's decision to refuse to grant the exemptions. In its analysis, the court first established that although the FAA's decision to deny the exemptions must be supported by substantial evidence, the petitioners actually had the burden of showing that extenuating circumstances justified exemptions from the Age-60 Rule, especially given the FAA's overwhelming discretionary authority in this particular area. The court described the pilots' burden as "heavy," emphasizing the overarching public safety consideration. The court also noted the great difficulty facing the pilots to demonstrate a clear conclusion with respect to the trade-off between experience and possible age-related impairment. In fact, the court stated that such a task was "extremely onerous for the bearer of the burden of persuasion."

The court then examined the evidence presented by the pilots, noting that, although the pilots presented impressive expert opinion as well as other anecdotal evidence, they were unable to set forth a persuasive statistical analysis comparing average risks for pilots in the various relevant age categories. The court noted that petitioners,

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135 Baker v. FAA, 917 F.2d at 319.
136 Id.
137 Id.
138 Id.
139 Id.
140 Id. at 319-20. The "anecdotal" evidence referred to by the court related to specific, heroic acts performed by pilots in flight who were nearing the age of 60 at the time they performed their heroic deeds. The courts specifically noted the actions of Captain Cronin, who at age 59, on his second to last scheduled flight, heroically landed a Boeing 747 en route from Honolulu, Hawai'i to Auckland, New Zealand after a forward cargo door blew open 17 minutes after take off, opening a huge hole in the side of the plane. After two of the plane's four engines became disabled, Captain Cronin consulted emergency operating procedures which directed him to dive, reduce speed and drop the landing gear. However, 38 years of experience told him that, if that course were followed, the plane would lose too much altitude given its weight and multiple emergency situation. Captain Cronin instead operated many of the controls manually, constantly readjusting his speed and altitude calculations. With the
relying on data gathered by the National Transportation Safety Board, presented evidence that pilots over age sixty achieved a lower accident rate than pilots in the other age groups.\textsuperscript{141}

Unfortunately, the court questioned the value of this evidence, as it failed to account for exposure to risk in terms of hours of flight time.\textsuperscript{142} The court stated that the data submitted by the petitioners afforded equal weight to all pilots, irrespective of the number of hours flown by the pilots in any one year. Because of this deficiency, the court commented that the pilot-petitioners’ evidence was of “questionable value.”\textsuperscript{143} Moreover, the court emphasized the lack of any analysis demonstrating statistically significant difference in accident experience by age and noted that the pilot-petitioners had failed to indicate the existence of a significant lack of pilot experience in need of correction in the first place.\textsuperscript{144}

Interestingly, the evidence submitted by the FAA did not escape harsh criticism by the court either. In fact, the court emphasized that it did not find the FAA’s evidence any more persuasive than that offered by the pilots. The court voiced its skepticism concerning the agency’s heavy reliance upon the Flight Time Study, which the court candidly admitted contained “serious flaws.”\textsuperscript{145} The court recognized that the study included millions of relatively safe air carrier miles flown for those pilots under the age of sixty, “miles which because of the age sixty rule were unavailable to pilots over sixty.”\textsuperscript{146} Because of this dis-

\textit{Id.} Although the court recognized Cronin’s heroic efforts, it did not place much weight on the evidence as the pilots immediately before the court had not themselves “performed aeronautical miracles.” \textit{Id.} at 320.

\textsuperscript{141} \textit{Id.}
\textsuperscript{142} \textit{Id.}
\textsuperscript{143} \textit{Id.}
\textsuperscript{144} \textit{Id.}
\textsuperscript{145} \textit{Id.}
\textsuperscript{146} \textit{Id.}
parity, the study significantly understates the accident rates for all pilots under the age of sixty, as compared to those pilots over the age of sixty.\footnote{Id. at 320-21. Specifically, "the Flight Time Study divides the number of general aviation accidents by general aviation flight time" in order to calculate the accident rate for pilots age 60 and older. \textit{Id.} at 320. However, \textit{[b]ecause miles flown in air carrier operations are nearly accident free, and millions of these extra miles are included in the figures for younger pilots but not for older ones, the accident rate for all pilots under age sixty is significantly understated compared to the rate for older pilots, whose accident rate is overstated.}}

\textit{Id.} at 320-21. Perhaps the court summarized the credibility of the Flight Time Study best, when it stated that when "looking at the Flight Time Study's chart of accident risk for Class I (airline transport) and Class II (commercial) pilots with greater than 5,000 hours total flight time, the jump in accidents at age sixty to sixty-nine from age fifty to fifty-nine simply looks too large to be credible."\footnote{\textit{Id.} at 321 (citation and footnote omitted). Interestingly, the court emphasized that "[e]ven without correcting the Flight Time Study for this disparity in types of current flight hours, the FAA's own study on its face may in some aspects be construed to support the petitioners' claims, the raw data supporting a number of different possible conclusions." \textit{Id.} The court viewed specific data for Class III pilots (general aviation and students) showing accident rates as a function of total recent flight time. Recognizing that the Flight Time Study segregated all of the pilots into 10-year age intervals, the court pointed out yet another flaw in the study, as such a presentation in fact skews the results of the Study.}

The data indicated that pilots age 60-69 (even 70 and over) with more than 1,000 hours total flight time and more than 50 hours recent flight time apparently have two of the lowest accident rates of any age groups of pilots in class III having various indicated combinations of total and recent flight time. These comparisons apply, of course, even with respect to younger pilots in their thirties and forties, whose safety qualifications are generally unquestioned.\footnote{\textit{Id.}}
nonparallel categories of automobile fatalities and aircraft accidents."\textsuperscript{150}

The court then focused its attention on the Aman court's directive commanding the FAA to justify granting exemptions to younger pilots who had suffered from alcohol abuse, heart conditions and the like while refusing to grant exemptions to apparently healthy and proficient pilots over the age of sixty.\textsuperscript{151} In response to the Aman court's directive, the FAA contended that particular medical examinations could be performed when specific, identifiable health problems were discovered. The agency asserted, on the other hand, that "'[a]ssessing the risks associated with determining which pilots may fly beyond age 60 concerns detrimental conditions which are unknown.'"\textsuperscript{152} Although the Baker court voiced its dissatisfaction with this explanation, the court emphasized the pilot-petitioners' inability to demonstrate the invalidity of the agency's contention.\textsuperscript{153} The court stressed that the pilot-petitioners had not presented the FAA with a totally reliable battery of tests which would demonstrate with certainty any deterioration of piloting skills associated with advancing age.\textsuperscript{154}

Although the majority rejected the pilot-petitioners' requests, it did so with obvious remorse. In the latter part of its opinion, the majority accurately described the pilots' precarious position as a Catch-22, noting that on one hand, the pilots cannot obtain exemptions until they can demonstrate that they are capable of safely flying larger passenger aircraft, while on the other hand, the pilots cannot show that they can safely fly such planes until they

\textsuperscript{150} \textit{Id}. With respect to the evidence pertaining to automobile traffic accidents, the court concluded that "[b]ecause elderly people seem more likely to die as a result of traffic accidents than younger people, the probative value of this [evidence] is diminished." \textit{Id}.

\textsuperscript{151} \textit{Id}.

\textsuperscript{152} \textit{Id}.

\textsuperscript{153} \textit{Id}. at 321-22.

\textsuperscript{154} \textit{Id}. at 322.
receive the exemptions. Despite such recognition, the majority denied the pilot-petitioners' claims, holding that the pilots had failed to meet their burden of presenting evidence that granting the exemptions would not impair safety.

In its conclusion, the majority stated that the agency's order denying the pilots' petition was in fact "supported by substantial, albeit certainly not compelling, evidence." The majority itself emphasized that it was not in the position to say that the numerous supporters of the petitioners' case were wrong. In fact, the majority poignantly stated that "[t]he FAA should not take this as a signal that the age sixty rule is sacrosanct and untouchable. Obviously, there is a great body of opinion that the time has come to move on. The agency must give serious attention to this opinion."

Notwithstanding the majority's decision to uphold the FAA's denial of the pilot-petitioners' exemptions, the dissent expressed doubt as to the FAA's justification for continuing to uniformly deny all petitions for individual exemptions from the FAA's overly rigid enforcement of the Age-60 Rule. Upon noting that the FAA had never

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155 Id. Due to this Catch-22 situation, the court noted that a valid statistical demonstration comparing safety records by age would seem difficult to obtain unless age groups were engaged in the same kinds of flying. Id. The court further noted that, because the pilots over the age of 60 are not permitted to pilot large passenger aircraft, any statistical comparisons are inherently suspect. Id.

156 Id. The Court emphasized that although the evidence presented did not show that the granting of exemptions would increase the risk of accident, there was no evidence which indicated that the experience of pilots over the age of 60 clearly outweighs the danger of deterioration of piloting skills or of sudden incapacitation associated with the aging process. Id. The court thus concluded:

where crucial issues of public safety are at stake, we would look for such a showing. Were the FAA to grant exemptions, it (and we) would no doubt be better able to resolve the question before us, but, absent the requisite compelling evidence, we must defer in these circumstances to the expert agency.

157 Id. The majority reached "this conclusion because of the obvious difficulty in attempting to balance on a statistical basis experience against reliable indicators of good health and ability to perform as age advances." Id.

158 Id.

159 Id. at 322-23.
granted an exemption to anyone (regardless of the pilot's physical qualifications or experience), the dissent stated:

Pilots with tens of thousands of hours of flight time and flawless records, and who pass every physical test with flying colors, suddenly are grounded on their sixtieth birthdays, even though the day before they were flying, without restrictions, and were acknowledged to be qualified and, ironically, are still deemed qualified to pilot planes with thirty passengers or less.\footnote{Id. at 323 (Will, J., dissenting). Before moving into the remainder of his argument, the dissent reviewed the history of the Age-60 Rule, noting in particular the FAA's justification of the Rule at the time of its adoption.}

After reviewing the FAA's traditional reasons for denying pilot petitions,\footnote{Id. The dissent noted that the FAA continues to rely on the same justifications today as it did when the Age-60 Rule was first created in 1959. Id. The dissent noted the two traditional reasons set forth by the FAA: (1) the notion that emotional, psychomotor, intellectual and physical attributes necessary for flight performance decline with age resulting in the deterioration of physical and cognitive performance after the age of 60, and (2) the notion that, because a pilot's skills began deteriorating at an increasing rate after the age of 60, the dangers of these skills deteriorating to the point of sudden incapacitation is much greater at age 60 and beyond, suggesting that there is no reliable way to distinguish a safe 60-year old pilot who won't suddenly collapse during flight from a pilot who will. Id.} the dissent addressed the Aman court's decision to vacate the FAA's denial of the petitions.\footnote{Id. The dissent noted that the original denial reviewed by the Aman court contained many of the same petitions on review in the case at hand. Id. at 324.} Specifically, the dissent expressed confusion as to exactly what the Aman court wanted the FAA to do when the agency was to review the denial on remand.\footnote{Id.}

The dissent noted the existence of a variety of tests available and commonly used to measure the physical and cognitive abilities of pilots, specifically mentioning flight simulator tests, vision and depth perception tests, hearing tests, blood tests, stress tests, and EKG's.\footnote{Id.} In light of the battery of available tests, the dissenting judge remarked that he found it difficult to believe that skills and physical or cognitive abilities existed which the FAA could identify as vital for safe flying but for which it either could...
The dissent also questioned how the FAA was supposed to reconsider the relationship between experience, on one hand, and physical skills and abilities, on the other hand, especially in light of the fact that the Aman court found "substantial evidence" to show that physical deterioration could not be tested and measured accurately. The dissent admitted that "balancing an intangible like experience against undetectable or unmeasurable deterioration would be some trick." The dissent also noted that a more serious difficulty with the FAA's continuing reliance on a pilots' "sudden incapacitation" could be traced to the very foundation of the FAA's argument. The dissent commented that the "troubling problem with the FAA's 'sudden incapacitation' justification [for the Age-60 Rule] is its premise." The dissent argued that the court should first inquire whether substantial evidence currently exists to support the proposition that all pilots age sixty and older are significantly more prone to sudden medical catastrophe than are other pilots. The dissenting judge contended that, after all, the Age-60 Rule only makes sense if it screens for risks that are significantly higher for all sixty-year-olds than for pilots in other age groups. Otherwise, he correctly concluded, "the rule is simply an arbitrary, overly broad and outmoded presumption, smelling of age dis-

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165 Id.
166 Id. at 324-25.
167 Id. at 325. The dissent noted that if, as a pilot grows older, experience offsets any decrease in skills and abilities, such an argument would logically depend on two separate factors: (1) how much experience the particular pilot possesses, and (2) how severely the pilot's physical skills and abilities have deteriorated. Id. The dissent pointed out that the Aman court had previously concluded that the second factor could not be measured with any degree of reliability. Id.
168 The dissent defined "sudden incapacitation" as "the specter of a pilot in the cockpit, of no matter what age, suddenly stricken by a heart attack or a stroke." Id.
169 Id.
170 Id. Additionally, the dissent criticized the Aman court for stating that current medical technology could not determine which pilots over the age of 60 would be most vulnerable to sudden incapacitation. Id.
discrimination, about infirmities which do not uniformly afflict our pilots over 60 and should not be assumed to.\textsuperscript{171}

The dissent then focused its attention on the \textit{Aman} court's instruction to the FAA to explain the FAA's increased willingness to issue "special certificates" to pilots under the age of sixty with records of heart disease, drug abuse and alcoholism while simultaneously refusing to grant exemptions from the Age-60 Rule.\textsuperscript{172} In response to the \textit{Aman} court's directive, the FAA explained that while current tests can predict the "expected course" of a medical deficiency, such as alcoholism or heart disease, with sufficient accuracy to afford valid, individualized judgments, such accuracy is not in fact achievable when assessing the "decrements" associated with the aging process.\textsuperscript{173} Importantly, the dissent noted that the FAA did not offer "any evidence to support this distinction between the special certificates it grants to younger pilots and its refusal even to promulgate meaningful regulations and criteria for age exemptions for older pilots, much less to grant an exemption to an older pilot."\textsuperscript{174} Hence, the dissent criticized the majority for bowing to the agency's unsupported contentions, even though the majority itself admitted that it did not completely comprehend how the FAA's distinction applied as a practical matter.\textsuperscript{175}

Switching its focus to the record of the case, the dissent then discussed the serious flaws inherent in the Flight Time Study, noting again that the majority recognized such weaknesses but still held in favor of the FAA.\textsuperscript{176} The

\textsuperscript{171} \textit{Id.}
\textsuperscript{172} \textit{Id.}
\textsuperscript{173} \textit{Id.}
\textsuperscript{174} \textit{Id.} Furthermore, the dissent noted that the FAA set forth no citation in support of the proposition that the symptoms associated with alcoholism, drug abuse, and heart disease could be monitored more reliably than the "decrements" associated with aging. \textit{Id.}
\textsuperscript{175} \textit{Id.} at 325-26. The dissent particularly criticized the majority's holding that it would not require the FAA to address the paradox of allowing pilots under the age of 60 suffering from heart disease, alcohol abuse, and drug abuse to pilot aircraft, while forcibly grounding those pilots age 60 and older, whose records and physical condition, by contrast, are impeccable. \textit{Id.}
\textsuperscript{176} The dissent specifically noted two flaws inherent in the Flight Time Study
dissent also noted that the FAA analysis showing the relationship between automobile and airline traffic accident fatalities as a function of age constituted weak evidence. Accordingly, the dissent agreed with the majority's finding that the connection between automobile drivers and pilots is tenuous at best.\textsuperscript{177}

Importantly, the dissent also agreed with the majority’s view that the pilot-petitioners faced a Catch-22 situation.\textsuperscript{178} The dissent, however, gave more weight than did the majority to the pilot-petitioners’ accounts of pilots who on the verge of turning sixty years of age performed heroic deeds and thus saved many lives in situations where a less experienced pilot might have failed.\textsuperscript{179} The dissent also recognized the wealth of expert opinion evidence asserting that experienced pilots over the age of sixty are in fact qualified to fly large commercial aircraft, and moreover, may even be better qualified than their younger, less experienced colleagues.\textsuperscript{180} Furthermore, the dissent stressed the importance of the statistics supplied by the National Transportation Safety Board indicating that pilots aged sixty and older show a lower accident rate than pilots in other age groups.\textsuperscript{181} Consequently, the dissent chastised the majority for concluding that (1) the FAA presented “substantial evidence” supporting the Age-60 Rule, even though the majority itself admitted that it had seen no compelling evidence indicating that the granting of exemptions would increase the

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\textsuperscript{177} Id. For further discussion of the automobile accident analogy, see supra notes 124-34 and accompanying text.

\textsuperscript{178} Id. On the majority’s “catch-22” characterization, see supra notes 159-60 and accompanying text.

\textsuperscript{179} Id.; see supra note 140 and accompanying text.

\textsuperscript{180} Id.

\textsuperscript{181} Id. For further discussion on the majority’s treatment of the NTSB statistics, see supra notes 141-44 and accompanying text.
risk of accident, and (2) it had seen no strong evidence demonstrating that the experience of the age sixty-and-over pilot clearly outweighed the danger of deteriorating pilot skills that are associated with age. The dissent further held that the FAA’s strict adherence to the Age-60 Rule effectively implies that every airline pilot on his or her sixtieth birthday, irrespective of physical condition or experience, becomes a significantly greater safety hazard than he or she was just the day before. The dissent poignantly concluded, “[t]he evidence in this case does not warrant [such a] conclusion. Nor does everyday, ordinary good old common sense.”

Thus, the dissent advocated vacating the FAA’s order and remanding the action on three separate fronts. First, the dissent suggested that the FAA adopt “regulations establishing ascertainable and meaningful standards to govern the granting of at least some exemptions to the age 60 rule.” The present FAA regulations, the dissent concluded, do not sufficiently guide the agency in exercising its available discretion. In fact, the dissent went so far as to criticize the current FAA regulations as constituting a fraud.

Second, the dissent would remand for a showing by “current and substantial evidence” that all pilots age sixty and older are “significantly more prone to ‘sudden incapacitation’ than all pilots under the age of sixty.” The dissent recommended a reevaluation of the relevant data so that the agency could articulate a satisfactory explanation rationally related to the facts presented, as opposed to continually relying on “sudden incapacitation” as its support for the Age-60 Rule.

Finally, the dissent suggested remanding the case so that the FAA could supply a full and reasoned explanation

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182 Id.
183 Id.
184 Id. at 327.
185 Id.
186 Id.
187 Id.
188 Id.
for treating requests for special medical exemption certificates differently than petitions for exemptions from the Age-60 Rule.\textsuperscript{188} The dissent advocated requiring the agency to consider the possibility of requiring pilots age sixty and older to undergo more frequent skill and medical examinations than pilots below the age of sixty.\textsuperscript{189} Noting that the agency already performs such testing for pilots granted special medical exemptions, the dissent suggested that such testing may provide the agency with sufficient, accurate, up-to-date data pertaining to a pilot’s health.\textsuperscript{190} This would enable the agency to make informed, individualized determinations concerning a pilot’s flying ability, rather than arbitrarily and capriciously denying exemptions to all.\textsuperscript{191}

CONCLUSION

Since its enactment over thirty years ago, the Age-60 Rule has continually been the target of extreme scrutiny from both the aviation and legal community. Despite this seemingly endless onslaught of attack, the Age-60 Rule remains fully intact to this day.

In support of this somewhat antiquated doctrine, the FAA continually urges public safety as the overarching rationale for maintaining strict adherence to its “60 and out” policy for pilots. The FAA historically relies on the premise that certain emotional, psychomotor, intellectual and physical attributes required for flight performance decline with age, and cannot be reliably tested, thereby exposing the public to an increased risk of accident.

Ironically, the agency’s continual reliance may actually lead to the eventual demise of the Age-60 Rule, as the growing body of evidence indicates that current medical technology can in fact detect the deterioration which affects the requisite physiological and psychological skills

\textsuperscript{188} Id.
\textsuperscript{189} Id.
\textsuperscript{190} Id.
\textsuperscript{191} Id.
necessary for safe flying. Unfortunately, no court has yet given this evidence the weight it deserves, and until courts begin to do so, each pilot will be forced to retire upon reaching his or her sixtieth birthday, even though any one of these experienced pilots might indeed be the safest in the air.