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16. Abstract This study quantifies some medical and general descriptive characteristics of air- men medically disqualified during calendar year 1971. Such information has been of continual interest to the Office of Aviation Medicine and the aviation community for purposes ranging from program monitoring to disability risk determination. Specifi- cally, the study presents descriptive data concerning age, sex, occupation, class of medical certificate applied for, cause-specific denial rates, and total flying time for medically disqualified applicants. Separate attention is devoted to airline pilots as a result of numerous inquiries. During calendar year 1971, 456,490 applicants were examined for FAA medical certification purposes one or more times. Of this total, 4,334 applicants were denied medical certification resulting in an overall denial rate of 9.5 per 1,000 applicants. By class of medical certificate applied for, the denial rate was 3.8, 6.2, and 14.7 per 1,000 applicants for first, second, and third classes respectively. Higher age intervals (45 and above) contributed more to denials than would be expected based on proportional population representation. General aviation and new applicants represent the majority of total denials, partially reflecting the fact that new applicants were being screened for the first time. Eighty-seven percent of all denied applicants were not occupationally connected to aviation. Fifty-seven percent of denied applicants had less than 40 hours total flight experience. Cardio- vascular, neuropsychiatric, and miscellaneous pathology (endocrinopathies, general systemic conditions, disqualifying medications, etc.) were the most significant causes for denial. Cause-specific findings for the airline pilot denial group present similar trends.					
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CHARACTERISTICS OF MEDICALLY DISQUALIFIED AIRMAN APPLICANTS DURING CALENDER YEAR 1971

I. Introduction

Medical and general descriptive characteristics of airmen denied medical certification by the Federal Aviation Administration are of continual interest to the Office of Aviation Medicine and the aviation community. Initial efforts¹ to provide this information on denied applicants were well received and these data have been valuable reference material.

The Aeromedical Certification Branch, Medical Statistical Section, is establishing a periodic reporting system to provide such data on airmen denied medical certification. As in the past, the purposes for such data are for program monitoring with respect to aeromedical standards, research direction concerning potential rehabilitative disorders, and risk determination by aviation community users. A multitude of other purposes, ranging from workload information to appeal system appraisal, are, of course, served by these data. However, the primary purpose continues to be enhancement of flight safety through medical program data analysis.

Refinement of reporting procedures and methodology is still in progress. While providing useful information, this report is not as comprehensive as future reports will be, particularly with respect to epidemiologic findings concerning age-specific denial rates. Certain data limitations, files access, and programming problems are being overcome to provide a more comprehensive product in the future.

This study presents descriptive data concerning age, sex, occupation, class of medical certificate applied for, cause-specific denial rates, and total flying time for denied applicants. As a result of numerous inquiries, particular attention has been devoted to the airline pilot category in this study.

II. Methods and Source

The Aeromedical Certification Branch of the Civil Aeromedical Institute is the central screening facility and repository within the Federal Aviation Administration for collection, investigation, analysis, and adjudication of medical data generated by the Aeromedical Certification and related regulatory programs. Consistent with this responsibility, the Branch maintains, on magnetic tape, computerized medical files which serve the dual function of providing historical data for daily screening of document input and for statistical purposes. The so-called "active master tape file" contains the most recent (within the past three years) record of an airman's medical application for certification. The tape includes issued, pending, or denied applications and abbreviated records of significant pathology cases retained indefinitely for future medical reference in the event an inactive airman decides to again exercise his flying privileges.

Source data were obtained from the active master tape files as of July 1, 1972, for calendar year 1971 applicants. The six-month time lapse was allowed to assure final certification action had been taken in the majority of cases. Obviously, the appeal procedure can take a few months when numerous ancillary medical work-ups are required.

The data which follows reflect the final certification status of calendar year 1971 applicants, as of July 1972. A total of 4,334 airmen who were examined for FAA medical certification during 1971 were identified as having been denied FAA medical certification as of July 1972. The several frequency tables which follow were compiled based on data extracted from these airmen's medical records to reflect medical and general descriptive characteristics of calendar year 1971 denied applicants.

III. Findings and Discussion

A. General Comment

The total number of FAA physical examinations performed during 1971 amounted to 489,292. Some occupationally connected airmen would, of course, have been examined more than once during 1971. Based on total examinations performed, the denial rate equals 8.8 per 1,000 applications. Since 32,802 airmen made application for medical certification more than once during 1971, the 489,292 total examinations actually represented 456,490 airmen.² The denial rate based on airman applicants is, therefore, 9.5 per 1,000 airmen.

The Office of Aviation Medicine recognizes that many airmen, in effect, deny themselves medical certification because of known medical conditions which would preclude medical certification and subsequent attrition from an active airman status. Two recent FAA studies have dealt with the medical factors contribution to attrition.^{3 4} The occurrence of voluntary medically related attrition, although an obvious deflating factor in any computation, is a less likely occurrence among airmen occupationally connected to aviation since more is obviously at stake and since this group is more likely to be aware of appeal procedures. Further, medical disability insurance carriers frequently require official FAA denial prior to settlement.

B. Age Distribution of Denied Airmen

Tables I and II reflect the age distribution of denied airmen, denial rates by class applied for, and a proportional age comparison of denied airmen with the January 1, 1972, active airman population. The active airman population consists of all airmen certified during the past 24 calendar months (consistent with regulatory definition concerning maximum duration of FAA medical certification). Since many of the active airmen were not required to have physical examinations during 1971 and thus could not have contributed to the numerator of a denial rate, age-specific rates were not computed. Separate age distribution data for the 1971 applicants were not available for inclusion in this study but will be available in future reports. One may observe, however, the apparent age trends from the proportional

comparisons made in Table II and make certain assumptions based upon the relative contribution to overall denials from the various age intervals. Table II suggests that the contribution of younger age intervals to total denials is similar, if not less, than their corresponding active population representation through ages 40-44. Beyond this age interval, proportional representation of denied airmen by age interval exceeds that of the corresponding active population age interval. This relationship would be consistent with epidemiologic expectations; however, these findings do represent a slight departure from previous findings, in that the 1968 study¹ found the relative representation among denials in the 20-24 age interval to exceed that of the corresponding active population group.

Denial rates by class applied for, as shown at the bottom of Table I, indicate that the overwhelming majority of denials are applicants for third-class medical certification or general aviation private pilot types. Occupationally connected airmen would require first- or second-class medical certificates and denial rates for these categories (3.8 and 6.2 per 1,000 applicants respectively) are substantially lower than the general aviation category (14.7 per 1,000 applicants) or the total population denial rate (9.5 per 1,000 applicants).

New airmen may apply for and obtain any class of medical certificate for which they qualify; however, most new applicants make application for third-class medical certification consistent with their intended usage (or possibly for second class if intending to use GI benefits for flight training). First- and second-class medical certification categories are composed mainly of occupationally connected airmen, either on a full-time or part-time basis. As such, the first- and second-class categories are, to some extent, medically purged and denial rates among these groups are more likely to reflect incidence of disqualifying pathology among a fairly stable numerical group. Third-class applicants, on the other hand, are comprised of many new applicants whose medical condition has not been previously appraised by the FAA. Therefore, the confounding of prevalence with incidence of disqualifying pathology likely results in the

substantially higher denial rate for this group rather than any recognizable epidemiologic variable.

Also shown at the bottom of Table I are mean ages for the three class-applied-for denial groups. The first-class denied applicant group was oldest (44 years); third-class next oldest (41 years); and, second-class youngest (39 years). The mean age for all denied applicants was 40.5 years. The inverse relationship observed for mean age versus denial rates by class is largely explainable based on the preceding discussion of class composition, prevalence, and prior screening considerations.

C. Previous Application Status of Denied Airmen

Data contained in Table III provide a more detailed breakdown of denied applicants by class of medical certificate applied for. The various sub-categories within the three classes of medical certification are defined and denials quantified. Also provided are data concerning whether a previous FAA medical examination was recorded for the individual. This breakdown allows for appraisal of denied airmen by "new applicant" versus "previously certified" status. For all applicants, the ratio of new applicants to previously certified airmen is approximately 1 to 1. Within the three classes of medical certification, a different picture emerges to describe this relationship. There were 7.6 times as many "previously certified" first-class denials as "new applicant" first-class denials. Although not as high a ratio existed for second-class applicants, the "previously certified" category did exceed "new applicants" by 1.7 times. In sharp contrast to the relationship existing in the first and second medical certificate classes, almost two-thirds of the third-class denials were new applicants. This relationship is, however, not unexpected since classes one and two are normally associated with professional pilots who have been previously medically appraised by the FAA; whereas new pilots are most likely to make application for third-class medical certification.

D. Occupations of Denied Airmen

Table IV affirms that the majority of denied airmen are not occupationally connected to civil aviation. Eighty-seven percent of all denied

applicants indicated non-aeronautical occupations on their applications. The largest percentage of denials occupationally connected to aviation was among air traffic controllers (7.6%). The percentage representation of air traffic controllers among denied applicants exceeded their proportional representation in the active population (5.4%). The next highest was airline pilots at 2.7%, proportionally less, however, than their corresponding population representation (5.0%). More detail will be provided concerning denied airline pilot personnel in a later section of this study. Other occupationally connected groups individually represented less than 1% of total denials by occupation and were proportionally less than corresponding population representation.

E. Total Flying Time of Denied Airmen

Flying time data further emphasize the contribution by new applicants to total denials. Table V shows total civilian flying time as recorded on the applications of denied airmen. Fifty-seven percent of the denied airmen indicated fewer hours than required for a private pilot's license. About 32% indicated zero hours flown. Some of these denied applicants are, of course, air traffic controllers (as many as 328 reflected in Table IV) who would not have had any flight time in most instances. However, if the maximum possible air traffic controller denials (328) are subtracted, the remainder still indicates the major contribution to total denials by new applicants (less than 40 hours total flying time equals 53.2% when air traffic controllers are eliminated). Two other clusters occur at "100-299" hours and at "over 1,000" hours.

F. Medical Characteristics of Denied Airmen

Table VI provides cause-specific denial data by class of medical certificate applied for, and Table VII by sex of the applicant. Referencing Table VI, one observes an increasing cause-specific rate for third over second class and for second over first class, which is consistent with crude rate findings. The most important causes for denial (regardless of class applied for) are cardiovascular, neuropsychiatric, and the miscellaneous category which includes endocrinopathies, general systemic conditions, use of disqualifying medications, and administrative denials for failure to

provide further requested medical information concerning conditions reflected on the application. Eye and abdominal pathology are next in importance at substantially lower rates.

As shown by Table VII, cause for denial by sex indicates that males were most frequently denied for cardiovascular reasons, next for miscellaneous causes, and then for neuropsychiatric reasons. Females, however, were most often denied for miscellaneous causes (almost 50%), then for neuropsychiatric and cardiovascular reasons respectively. These three cause-specific categories accounted for about 90% of all denials regardless of sex.

G. *Airline Pilot Denials*

As shown by Tables IV, VIII, and IX, 118 airline pilots were denied medical certification during calendar year 1971. Total active airline pilots for a similar time period equaled 33,972 (see Table VIII). The crude denial rate for airline pilots thus equals 3.5 per 1,000 applicants, lower than total first-class applicant denials (3.8 per 1,000) and substantially lower than second- or third-class applicant denial rates (6.2 and 14.7 per 1,000 respectively).

Observations on this group probably come the closest to a true reflection of disqualifying disease occurrence as is possible to observe from FAA health data. As previously mentioned, this group is essentially purged of any disease prevalence that contributes to higher rates for other groups. Also, due to occupational reasons, these individuals are less likely to voluntarily remove themselves from follow-up observation for known medical conditions which would preclude FAA medical certification. Conversely, voluntary attrition is a frequent occurrence among non-occupationally connected airmen of a lower certificate class who recognize that they are not medically qualified and, therefore, are never heard from again by the FAA.

Age-specific, cause-specific, and combined age-cause-specific denial rates are provided in Table VIII. While some numbers are small, the importance of certain categories are overwhelmingly obvious. The importance of cardiovascular and neuropsychiatric diseases, particularly above age 40, is again recognized.

Data on denials by employer provide some interesting insight, even though fraught with

numerous limitations which preclude comparison, i.e., small numbers substantially affect comparison. Further, these data reflect active certified first-class airmen for the preceding 24 calendar months, thus including many administrators and other airman categories not functioning as airline pilots. Of interest, however, is that larger employers, many of which have medical facilities, have uniformly lower denial rates than smaller employers. Part of this difference is undoubtedly due to the preventative medical programs of the larger employers. Part of the difference is likewise due to early recognition and removal from flight status of employees manifesting disease states likely to result in denial.

Flight time data contained in Table IX are informative but consistent with empirical expectation.

IV. Summary

Information contained in this study of calendar year 1971 applicants has served to update previous data concerning the medical and general descriptive attributes of airmen denied FAA medical certification. New data relating to descriptive characteristics for the airline pilot group have been provided for the first time.

Recapping: 456,490 applicants were examined for FAA medical certification purposes during calendar year 1971; 4,334 applicants were denied medical certification resulting in an overall denial rate of 9.5 per 1,000 airman applicants; by class of medical certificate applied for, the denial rate was 3.8, 6.2, and 14.7 per 1,000 applicants for first, second, and third classes respectively; contribution to total denials by younger age intervals is similar and, in most instances, less than corresponding active population representation; and as anticipated, the higher age intervals contributed more to denials than would be expected based on population representation.

General aviation applicants and new applicants contributed heavily to total denials, partially reflecting the fact that new applicants were being screened for the first time; slightly more than one-half of all denied applicants indicated no previous FAA medical application had been made; 87% of all denied applicants indicated non-aeronautical occupations on their application; and of the professional categories, air traffic

controllers were more often denied medical certification than any other category, with airline pilots being next highest.

Cardiovascular, neuropsychiatric, and the miscellaneous pathology category (endocrinopathies, general systemic conditions, disqualifying medication, etc.) were the most significant causes for denial, being involved in 9 out of 10 denials. Cardiovascular causes were most important for

males and the miscellaneous category was the most important for females.

Quantification for the airline pilot denied group has generally resulted in similar cause-specific trends as those cited above for the total denied group. Age-cause-specific findings for the airline pilot group follow epidemiologic expectations, with age being a significant variable associated with increased rates.

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Table I

DENIALS BY AGE AND CLASS OF MEDICAL CERTIFICATE
APPLIED FOR BY CALENDAR YEAR 1971 APPLICANTS

Age*	First Class	Second Class	Third Class	Total
Less than 20	7	29	178	214
20-24	18	191	383	592
25-29	20	172	300	492
30-34	13	123	251	387
35-39	20	118	236	374
40-44	29	100	340	469
45-49	49	144	396	589
50-54	56	210	377	643
55-59	31	77	213	321
60-64	5	22	126	153
65-69	-	8	59	67
70 and over	1	9	23	33
Subtotal Denied	249	1,203	2,882	4,334
Percent of Total Denials	5.7	27.8	66.5	100.0
Subtotal Issued	85,443	202,209	197,306	484,958
Percent of Total Applications Issued	17.6	41.7	40.7	100.0
Total 1971 Applications	85,692	203,412	200,188	489,292
Denial Rate per 1,000 Applications	2.9	5.9	14.4	8.8
Total Applicants	64,697	195,475	196,318	456,490
Denial Rate per 1,000 Applicants	3.8	6.2	14.7	9.5
Mean Age (Denied Applicants)	44.0	38.9	40.9	40.5

*Age as of date of examination to last birthday.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch, Medical Statistical Section.

Table II
 AGE DISTRIBUTION COMPARISON - ACTIVE AIRMEN
 VERSUS CALENDAR YEAR 1971 DENIED AIRMEN

Age Group*	Denied Airmen	Percent	Active Certified Airmen**	Percent
Less than 20	214	4.9	36,452	4.9
20-24	592	13.7	102,562	13.8
25-29	492	11.4	128,405	17.3
30-34	387	8.9	107,777	14.6
35-39	374	8.6	98,547	13.3
40-44	469	10.8	89,663	12.1
45-49	589	13.6	79,061	10.7
50-54	643	14.9	57,350	7.7
55-59	321	7.4	25,813	3.5
60-64	153	3.5	10,038	1.4
65-69	67	1.5	3,569	0.5
70 and over	33	0.8	1,398	0.2
TOTAL	4,334	100.0	740,635	100.0

*Age as of date of examination to last birthday.

**As of January 1, 1972.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch,
 Medical Statistical Section.

Table III
DENIED CALENDAR YEAR 1971 APPLICANTS BY AGE, CLASS OF MEDICAL CERTIFICATE APPLIED FOR, AND WHETHER A PREVIOUS EXAMINATION WAS RECORDED

Age Group*	First Class		Second Class		Second Class		Second Class		Second Class		Second Class		Third Class		Total							
	ATC - CIV/FAA		ATC - MILITARY		Engineer/Navigator		Commercial Pilot/ATC		Pvt. or Stu. Pilot/ATC		Private		Student									
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No						
Less than 20	1	6	8	15	2	2	-	-	-	-	-	-	2	1	17	158	32	0.7	182	4.2		
20 - 24	12	6	44	59	6	59	13	3	-	2	-	2	2	20	7	59	297	159	3.7	433	10.0	
25 - 29	15	5	65	51	10	34	4	-	-	3	-	3	-	37	6	32	225	171	3.9	321	7.4	
30 - 34	10	3	50	38	17	10	2	-	-	3	-	3	-	30	10	37	174	152	3.5	235	5.4	
35 - 39	19	1	43	34	21	9	3	1	1	-	4	-	2	51	6	37	142	181	4.2	193	4.5	
40 - 44	26	3	61	15	8	4	3	-	-	4	-	4	-	104	22	45	169	253	5.8	216	4.9	
45 - 49	47	2	82	32	11	2	-	3	-	8	2	4	-	155	49	36	156	346	8.0	243	5.6	
50 - 54	54	2	122	46	15	3	3	1	2	1	9	-	8	170	49	41	117	424	9.8	219	5.1	
55 - 59	30	1	48	14	8	-	-	-	1	-	3	-	3	95	26	25	67	213	4.9	108	2.5	
60 - 64	5	-	19	1	1	-	-	-	1	-	-	-	-	70	8	11	37	107	2.5	46	1.1	
65 - 69	-	-	8	-	-	-	-	-	-	-	-	-	-	35	7	6	11	49	1.1	18	0.4	
70 and over	1	-	8	1	-	-	-	-	-	-	-	-	-	16	1	3	3	28	0.7	5	0.1	
TOTAL	220	29	558	306	97	123	30	5	8	1	36	2	32	5	785	192	349	1,556	2,115		2,219	
Percent	5.1	0.7	12.9	7.1	2.2	2.8	0.7	0.1	0.2	0.0	0.8	0.0	0.7	0.1	18.1	4.4	8.1	36.0	48.8		51.2	

*Airman's age as of the date of examination to his last birthday.

**The date, if any, in Block 20, FAA Form 8500-6, indicates whether a previous examination was recorded.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch, Medical Statistical Section.

Table IV

DENIED CALENDAR YEAR 1971 APPLICANTS BY OCCUPATION
AND CLASS OF MEDICAL CERTIFICATE APPLIED FOR*

Occupation	First Class	Second Class	Second Class		Second Class	Second Class		Second Class	Third Class	Third Class	Third Class	Denied		Active
			ATC-CIV/FAA	ATC-Military		Commercial Pilot/ATC	Pvt. or Stu. Pilot/ATC					Percent	Percent	
Pilot, First-Class Airlines Only	118	-	-	-	-	-	-	-	-	-	-	118	2.7	5.0
Flight Engineer	-	5	-	-	5	-	-	-	-	-	-	10	0.2	0.6
Flight Navigator/ Radio Operator	-	1	-	-	2	-	-	-	-	-	-	3	0.0	0.0
Pilot, First-Class Non-Airlines	37	-	-	-	-	-	-	-	-	-	-	37	0.9	1.6
Commercial Pilot, Self-Employed	-	12	-	-	-	-	-	-	-	1	-	13	0.3	0.5
Commercial Pilot, Not Self-Employed	-	30	-	-	-	-	-	-	-	-	-	30	0.7	1.4
Aero Application	1	7	-	-	-	-	-	-	-	-	-	8	0.2	0.3
Air Traffic Controller	-	-	218	35	-	38	37	-	-	-	-	328	7.6	5.4
Flight Instructor	4	8	-	-	-	-	-	-	-	-	-	12	0.3	1.0
Aircraft Mechanic	1	7	-	-	-	-	-	-	5	9	-	22	0.5	0.8
Non-Aeronautical or Not Given	88	794	2	-	2	-	-	-	971	1,896	-	3,753	86.6	83.4
TOTAL	249	864	220	35	9	38	37	-	977	1,905	-	4,334		
Percent	5.7	19.9	5.1	0.8	0.2	0.9	0.9	-	22.5	44.0	-	100.0		100.0

*Blocks 9A and B, FAA Form 8500-8, determine "class applied for".

Source: Civil Aeronautical Institute, Aeronautical Certification Branch, Medical Statistical Section.

Table V
DENIED CALENDAR YEAR 1971 APPLICANTS BY
TOTAL RECORDED FLYING TIME

Total Flying Time* (Hours)	Number Denied	Percent Of Total
0	1,379	31.8
1 - 10	658	15.2
11 - 20	258	6.0
21 - 40	163	3.7
Subtotal	2,458	56.7
41 - 99	274	6.3
100 - 299	449	10.4
300 - 499	224	5.2
500 - 1000	286	6.6
Over 1000	643	14.8
Subtotal	1,876	43.3
TOTAL	4,334	100.0

*The total civilian flying time recorded in Block 16, FAA Form 8500-8, determines total flying time.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch, Medical Statistical Section.

Table VI
 CAUSE FOR DENIAL OF CALENDAR YEAR 1971 DENIED APPLICANTS BY
 PATHOLOGY SERIES AND CLASS OF MEDICAL CERTIFICATE APPLIED FOR

Pathology Series	First Class		Second Class		Third Class		Total	
	Cause For Denial*	Rate Per 10,000 Applicants	Cause For Denial*	Rate Per 10,000 Applicants	Cause For Denial*	Rate Per 10,000 Applicants	Cause For Denial*	Rate Per 10,000 Applicants
Eye	10	1.5	61	3.1	146	7.4	217	4.8
Ear, Nose, Throat and Mouth	9	1.4	17	0.9	31	1.6	57	1.2
Respiratory	2	0.3	7	0.4	25	1.3	34	0.7
Cardiovascular	102	15.8	329	16.8	1,017	51.8	1,448	31.7
Abdominal	13	2.0	49	2.5	111	5.6	173	3.8
Neuropsychiatric	67	10.4	255	13.0	486	24.7	808	17.7
Bones and Joints	4	0.6	16	0.8	19	1.0	39	0.9
Muscles	1	0.2	2	0.1	6	0.3	9	0.2
Miscellaneous (Disqualifying Medication, Endocrinopathies, etc.)	54	8.3	269	13.8	920	46.9	1,243	27.2
TOTAL	262	40.5	1,005	51.4	2,761	140.6	4,028	88.2

*Refers to distinct pathological conditions cited as cause for denial. Data does not represent airman applicants; however, most are denied for a single cause. Some applicants denied for administrative reasons, i.e., failure to provide required ancillary or history data, may not have a specific pathology code assigned.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch, Medical Statistical Section.

Table VII

DENIED CALENDAR YEAR 1971 APPLICANTS BY PATHOLOGY SERIES AND SEX

Pathology Series	Male		Female		Total	Percent of Total Denials
	Cause For Denial*	Percent of Denials	Cause For Denial*	Percent of Denials		
Eye	204	5.3	13	7.2	217	5.4
Ear, Nose, Throat and Mouth	55	1.4	2	1.1	57	1.4
Respiratory	33	.8	1	.6	34	.8
Cardiovascular	1,419	36.9	29	16.1	1,448	35.9
Abdominal	172	4.5	1	.6	173	4.3
Neuropsychiatric	760	19.8	48	26.6	808	20.1
Bones and Joints	37	1.0	2	1.1	39	1.0
Muscles	8	.2	1	.6	9	.2
Miscellaneous (Disqualifying Medication, Endocrinopathies, etc.)	1,160	30.1	83	46.1	1,243	30.9
TOTAL	3,848	100.0	180	100.0	4,028	100.0

*Refers to distinct pathological conditions cited as cause for denial. Data does not represent airman applicants; however, most are denied for a single cause.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch, Medical Statistical Section.

Table VIII
CALENDAR YEAR 1971 DENIED AIRLINE PILOTS BY
AGE AND CAUSE FOR DENIAL BY TRAINING STAGE

Age Group	Active Airline Pilots	Denial Rate per 10,000		Denial Rate per 10,000		Denial Rate per 10,000		Denial Rate per 10,000		Denial Rate per 10,000		Denial Rate per 10,000		Multiple Causes	Total	Percent of Total Denials	Age-Specific Denial Rate Per 10,000 Active Pilots
		Eye (100)	Respiratory (500)	Cardio-vascular (600)	Abdominal (500)	Neuro-psychiatric (600)	Muscles (600)	Misc. (500)	Denial Rate per 10,000	Denial Rate per 10,000	Denial Rate per 10,000	Denial Rate per 10,000					
20-24	363	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.8	27.5
25-29	3,314	1	3.0	-	-	-	-	3	9.0	-	-	-	-	-	1	2.4	12.1
30-34	8,310	-	1	1.2	-	-	-	1	11.2	-	-	-	-	-	2	2.4	4.8
35-39	7,630	-	2	2.7	-	-	-	3	4.0	-	-	-	-	-	2	2.7	8.5
40-44	4,485	-	-	-	-	-	-	2	4.5	-	-	-	-	-	3	11.1	13.5
45-49	4,258	-	-	-	-	-	-	2	16.1	-	-	-	-	-	4	9.4	35.7
50-54	4,315	1	2.3	11	25.8	1	2.3	6	13.9	-	-	-	-	-	4	9.4	45.8
55-59	1,373	-	1	7.3	4	29.1	1	7.3	21.8	-	-	-	-	-	7	51.0	78.8
60-64	117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	138.4
65-69	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85.5
TOTAL	33,972	2	5	39	4	24	6	29	11	-	-	-	-	-	118	0.8	2000.0
Percent of Total Denials		1.7	4.2	33.1	3.4	20.4	2.5	24.6	9.3	-	-	-	-	-	100.0		
Case-specific Denial Rate per 10,000 Active Pilots		0.6	1.5	11.5	1.2	7.1	0.9	8.5	3.2	-	-	-	-	-	34.7		

*Age as of date of examination to last birthday. Airline pilots were determined by the combination of having a first-class medical certificate issued within the past 13 months and an occupation of "pilot for an airline".

**Age-case-specific denial rates per 10,000 active pilots.

***The high rate per 10,000 noted for this cell is the result of small numbers effect.

Source: Civil Aeronautical Institute, Aeronautical Certification Branch, Medical Statistical Section.

Table IX

CALENDAR YEAR 1971 DENIED FIRST-CLASS
AIRLINE PILOTS BY AGE AND FLYING TIME

Age*	Total Recorded Civilian Flying Time (Hours)**					Total	Percent
	<1,000	1,000- 4,999	5,000- 9,999	10,000- 14,999	>15,000		
20-24	-	1	-	-	-	1	0.8
25-29	2	1	1	-	-	4	3.4
30-34	-	4	-	-	-	4	3.4
35-39	-	2	7	1	-	10	8.5
40-44	-	2	7	6	1	16	13.6
45-49	-	2	1	17	8	28	23.8
50-54	1	-	2	1	30	34	28.8
55-59	-	-	-	1	18	19	16.1
60-64	-	-	-	-	1	1	0.8
65-69	-	-	-	-	1	1	0.8
TOTAL	3	12	18	26	59	118	
Percent	2.5	10.2	15.3	22.0	50.0		100.0

*Age as of date of examination to last birthday.

**The total civilian flying time recorded in Block 16, FAA Form 8500-8, determines total flying time.

Source: Civil Aeromedical Institute, Aeromedical Certification Branch, Medical Statistical Section.

