

**TRANSACTIONS OF SOCIETY OF ACTUARIES
1954 REPORTS**

**REPORT OF THE COMMITTEE ON AVIATION
AVIATION STATISTICS**

THIS report is confined to a brief summary of such new data as add to or materially change conclusions reached in previous reports. Since this procedure has now been used for several years, the following index is given of the most recent information on various classes.

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SCHEDULED FLYING

United States

Table 1 shows the recent trend of fatality rates on United States scheduled airlines. Since pilots engaged full time in scheduled flying approximate 1,000 hours a year, the death rates per 1,000 hours are indicative of the annual death rate of such pilots. The columns headed "Death Rate of All Pilots Employed in Scheduled Flying" and "Death Rate of Other Crew Members Employed in Scheduled Flying" include, on the one hand, those who do less than the normal amount of flying on account of having some supervisory duties or for some other reasons, and include, on the other hand, the deaths in nonscheduled flights operated by scheduled airlines, such as test or charter flights. The "Death Rate of First Pilots in Sched-

TABLE 1
UNITED STATES SCHEDULED AIRLINES AVIATION DEATHS

Period	Passenger Death Rate per 1,000 Passenger Hours	Death Rate of First Pilots in Scheduled Flights per 1,000 Airplane Hours	Death Rate of All Pilots Employed in Scheduled Flying, per Life Year of Exposure	Death Rate of Other Crew Members Em- ployed in Scheduled Flying, per Life Year of Exposure
Domestic				
1949 .....	.0024	.0031	.0021	.0017
1950 .....	.0021	.0019	.0018	.0015
1951 .....	.0024	.0035	.0032	.0030
1952 .....	.0007	.0012	.0009	.0004
1953 .....	.0011	.0019	.0023	.0015
1946-1949 .....	.0030	.0032	.0030	.0029
1947-1950 .....	.0030	.0026	.0023	.0023
1948-1951 .....	.0023	.0027	.0022	.0021
1949-1952 .....	.0018	.0024	.0020	.0016
1950-1953 .....	.0015	.0021	.0020	.0015
International				
1949 .....	.0000	.0000	.0000	.0000
1950 .....	.0045	.0023	.0013	.0031
1951 .....	.0025	.0023	.0013	.0038
1952 .....	.0067	.0021	.0025	.0042
1953 .....	.0001	.0000	.0000	.0000
1946-1949 .....	.0022	.0022	.0025	.0032
1947-1950 .....	.0022	.0021	.0024	.0028
1948-1951 .....	.0023	.0016	.0019	.0028
1949-1952 .....	.0036	.0016	.0013	.0027
1950-1953 .....	.0033	.0016	.0013	.0027
Total				
1949 .....	.0019	.0024	.0016	.0010
1950 .....	.0025	.0020	.0017	.0020
1951 .....	.0024	.0033	.0028	.0032
1952 .....	.0017	.0014	.0012	.0014
1953 .....	.0009	.0016	.0019	.0011
1946-1949 .....	.0028	.0030	.0029	.0030
1947-1950 .....	.0028	.0025	.0023	.0025
1948-1951 .....	.0023	.0025	.0021	.0024
1949-1952 .....	.0021	.0023	.0018	.0019
1950-1953 .....	.0018	.0020	.0019	.0019

uled Flights," therefore, might be said to indicate the hazard of the normal airline pilot, while the "Death Rate of All Pilots Employed in Scheduled Flying" represents that of the average pilot. The difference in recent years is not great.

When the experience is grouped into four-year periods a continued gradual improvement is generally seen, although the passenger death rate in international flying of United States scheduled airlines has sometimes fluctuated more widely than the other death rates shown, for the reason that it is based on a small number of accidents, most of them involving a rather large number of deaths.

The improvement of the four-year period 1950-1953 over 1949-1952 was in general smaller than previous changes in four-year death rates between successive periods.

TABLE 2
SCHEDULED AIRLINES OF COUNTRIES OTHER
THAN UNITED STATES—PASSENGER AVIATION
DEATH RATE PER 1,000 HOURS

Period	Airlines of Countries Other than U.S. Re- porting to I.A.T.A.	All U.S. Airlines
1949.....	.0118	.0019
1950.....	.0069	.0025
1951.....	.0043	.0024
1952.....	.0036	.0017
1953.....	.0044	.0009
1946-1949.....	.0133	.0028
1947-1950.....	.0114	.0028
1948-1951.....	.0078	.0023
1949-1952.....	.0058	.0021
1950-1953.....	.0046	.0018

Outside of United States

The International Air Transport Association has furnished to the Committee the experience of most of its member companies for the period 1946-1953. By deducting the included experience of United States scheduled airlines and making reasonable assumption as to average speed in the years for which it was not specifically given, the passenger fatality rates per 1,000 hours shown in Table 2 were derived and compared with the rates from Table 1 for all flying of United States scheduled airlines (whether or not they are members of the International Air Transport As-

sociation). A marked improvement had occurred through 1951, but in the last few years the fatality rate seems to have leveled off at a figure well above that of United States airlines.

NONSCHEDULED ("IRREGULAR") CARRIER FLYING

The figures in Table 3 for "large" irregular air carriers—those operating aircraft of more than 12,500 pounds gross weight—are based on reports of their mileage to the Civil Aeronautics Board, and the assumption of an average speed of 200 miles per hour from take-off to landing.

The recent improvement in death rates is probably due to closer federal regulation, and to self-regulation by associations of nonscheduled

TABLE 3
NONSCHEDULED CARRIERS OPERATING AIRCRAFT OF
MORE THAN 12,500 POUNDS GROSS WEIGHT

Year	Passenger Deaths	Rate per 1,000 Passenger Hours	First Pilot Deaths	Rate per 1,000 Airplane Hours
1948.....	90	.039	6	.046
1949.....	104	.036	5	.043
1950.....	29	.008	1	.006
1951.....	78	.015	3	.013
1952.....	26	.004	2	.008
1953.....	141	.022	5	.022
1948-1951.....	301	.021	15	.023
1949-1952.....	237	.013	11	.014
1950-1953.....	274	.013	11	.013

airlines. The figures for 1951 and subsequent years include the transportation of military personnel under contract.

OTHER NONSCHEDULED FLYING

Table 4 shows fatality rates of first pilots per 1,000 airplane hours by kind of nonscheduled civil flying. Certain nonscheduled air carriers are excluded, as shown in a footnote to the table.

The exposure is an estimate of airplane hours by the Civil Aeronautics Administration, based on a sampling survey of aircraft owners. If there is any existing error in the underlying data it probably is in the direction of understatement of the use of individual aircraft, with consequent overstatement of the death rates.

The table indicates a general, although irregular, improvement in death rates over the period covered.

The class of noncommercial business flying covers all flying in connection with the business of the owner of the aircraft except where the purpose of the flight is to render transportation or some other service to other than the owner or his employees. Nonrevenue flights of scheduled air carriers are not included. For the year 1952 the experience has been

TABLE 4
NONSCHEDULED FLYING BY KINDS
FIRST PILOT AVIATION DEATH RATE PER 1,000 HOURS

PERIOD	COMMERCIAL AND MISCELLANEOUS†			NONCOMMERCIAL BUSINESS			PERSONAL			INSTRUCTION		
	Hours*	Aviation Deaths	Rate	Hours*	Aviation Deaths	Rate	Hours*	Aviation Deaths	Rate	Hours*	Aviation Deaths	Rate
1948	1,117	100	.09	2,576	85	.033	2,606	403	.15	8,701	182	.021
1949	1,380	89	.06	2,615	55	.021	2,732	286	.10	4,187	86	.021
1950†												
1951	1,495	117	.08	2,950	29	.010	1,880	207	.11	1,902	56	.029
1952	1,671	103	.06	3,124	38	.012	1,629	182	.11	1,503	40	.027
1953	1,579	93	.06	3,626	47	.013	1,846	166	.09	1,248	44	.035
1946-49	4,919	391	.08	8,194	237	.029	9,556	1,409	.15	28,990	669	.023
1947-49, 1951	5,158	388	.08	10,107	237	.023	9,834	1,308	.13	25,143	568	.023
1948-49, 1951-52	5,663	409	.07	11,265	207	.018	8,847	1,078	.12	16,293	364	.022
1949, 1951-53	6,125	402	.07	12,315	169	.014	8,087	841	.10	8,840	226	.026

* 000 omitted.

† Excluding all "irregular" carriers in 1946-47, and "large irregular" carriers (those operating aircraft of more than 12,500 pounds gross weight) in other years.

‡ No figures available.

TABLE 5
NONCOMMERCIAL BUSINESS FLYING—1952
FIRST PILOT AVIATION DEATH RATE
PER 1,000 HOURS

Kind of Flying	Hours*	Deaths	Rate
Company-owned planes	1,853	10	.005
Individually owned planes	1,271	28	.022
Multi-engine planes (included in two preceding lines)	541	2	.004

* 000 omitted.

subdivided in Table 5 between airplanes owned by a company and those owned by an individual. After allowing for the likelihood that pilots of business aircraft will on the average fly much less than scheduled airline pilots, the figures indicate that the annual death rate of pilots engaged in business flying in company-owned airplanes may not differ

greatly from that of scheduled airline pilots. This is based, however, on only ten deaths in the former class.

CANADIAN CIVIL PILOTS

The death rates for 1948-1953 are identical with those in last year's report for 1947-1952 (*TSA* 1953 Reports, 42).

UNITED STATES ARMY

The United States Army is training approximately 100 aviators a month. The Department of the Army has furnished the following information for the calendar year 1953 for all its flying operations, with deaths from enemy action excluded:

TABLE 6
UNITED STATES ARMY—ALL FLYING OPERATIONS

	Life Years of Exposure	Aviation Deaths	Rate per 1,000 Life Years of Exposure
Pilots.....	1,858	32	17.2
Other Personnel on Flying Status..	761	3	3.9

UNITED STATES NAVY

(Includes Marine Corps unless otherwise stated)

Pilots by Age

The principal change in the fatality rates of naval aviators (officers) on active duty in 1953 was a greatly increased rate in the age group under 25. This was observed both for officer pilots of the Regular Navy and Marine Corps and for all officer pilots, including reserve officers on active duty. The Department of the Navy informs the Committee that the probable underlying reason is an increased proportion of jet flying by pilots in this age group. A very high percentage of such pilots are on their first tour of duty.

Fatality rates are shown in Table 7 for all naval aviators for 1952, 1953, and 1947-1953, and for Regular naval aviators for 1952, 1953, and 1952-1953.

The Committee is informed by the Department of the Navy that there is no reason why the fatality rates of enlisted pilots on active duty should differ materially from those of officers.

Student Pilots

The fatality rates of student naval aviators, which had decreased in 1952, increased in 1953 but were not as high as the 1951 level. The figures are shown in Table 8. In 1952, carrier qualification training was made a part of basic training, whereas previously it had been included in ad-

TABLE 7
 UNITED STATES NAVY ON ACTIVE DUTY BY AGE
 NAVAL AVIATORS (OFFICERS)
 AVIATION DEATH RATES PER 1,000 LIFE YEARS OF EXPOSURE
 Deaths Due to Enemy Action Excluded—Other Deaths
 in Combat Missions Included

AGE GROUP	ALL NAVAL AVIATORS*			REGULAR NAVAL AVIATORS* (INCLUDED IN FOREGOING)		
	1952	1953	1947-1953	1952	1953	1952-1953
Under 25.....	25.6	41.7	22.0	20.2	58.1	28.7
25-29.....	13.4	9.0	9.5	13.3	9.6	11.5
30-34.....	9.1	8.1	7.0	8.3	6.0	7.1
35 and over..	5.2	3.6	3.4	4.0	2.4	3.1
All.....	11.3	11.3	9.1	9.1	6.5	7.8

* Includes Marine Corps 1948-1953.

TABLE 8
 UNITED STATES NAVY—STUDENT NAVAL AVIATORS
 AVIATION DEATH RATES PER 1,000 LIFE
 YEARS OF EXPOSURE

Stage of Training	1951	1952	1953	1946-1953
Basic.....	7.8	5.9	6.8	5.7
Advanced.....	33.1	3.6	13.4	23.5

vanced training. The increased fatality rate in 1953 is attributed to an increased volume of jet flying.

Inactive Reservists

For inactive reserve pilots in a drill pay status, figures have been obtained by age groups for 1952 and 1953. For the two years combined, the

fatality rate was 5.6 per 1,000 life years for ages under 30 and 1.4 for ages 30 and over. This status comprises four classes of pilots, as follows:

Group 1-A. These pilots are authorized 48 paid drills per year, 2 weeks annual training duty, and the training syllabus calls for a total of 100 hours of flying per year.

Group 1-B. These pilots are authorized 24 paid drills per year, 2 weeks annual training duty, and the training syllabus calls for 50 hours of flying per year.

Group 1-C. These pilots are authorized 12 paid drills per year, 2 weeks annual training duty, and the training syllabus calls for 50 hours of flying per year. Not many pilots in this group complete the syllabus. The average number of hours flown per year is estimated at 30-35 per pilot.

Volunteer Aviators—Drill Pay. These pilots are authorized 48 paid drills per year, 2 weeks annual training duty, and for the most part serve as instrument flight instructors for the pilots in Groups 1-A and 1-B. They fly approximately 100 hours per year.

For inactive reservists not receiving drill pay, the fatality rate in 1951-1953 for those who did some flying was 0.7 per 1,000 life years of exposure. These pilots are attached to volunteer aviation companies and do not receive pay for drills performed. As a general rule the only flying done by pilots in this group occurs during their 2-week periods of annual training duty.

Some of these reservists may do other flying as civilians, and it is possible that the hazard of those reservists who do no other flying than their reserve flying may be greater than the average figures given above, in which those pilots are also included whose experience is supplemented by civilian flying.

ROYAL CANADIAN AIR FORCE

Table 9 gives fatality rates for the period 1949-1953 for pilots of the RCAF and of the RCAF Auxiliary (reserve personnel who undergo weekly training in organized squadrons). In this five-year period the figures for Auxiliary pilots began to show the tendency to higher rates at the younger ages which has previously been observed in the RCAF and the United States services. There were no combat fatalities in the period covered.

INTERCOMPANY EXPERIENCE

Thirty companies contributed their experience this year on certain classes of pilots and military crew members for issues since January 1, 1946, observed in the case of some companies through December 31, 1953 and in the case of others through June 30, 1954. The results are shown in Table 10, with fatality rates omitted in classes having less than 5 deaths.

The experience is by policies. Classification is by status at time of application for insurance. Exposure is terminated upon discontinuance of extra premium, or upon discontinuance of aviation exclusion provision unless it was replaced by an extra premium. The classification of deaths of military personnel as to combat was based on the remarks on the company death cards sent to the Committee. Cards which stated "killed (or missing) in action" or similar definite statements were counted as combat deaths. All others were assumed noncombat.

TABLE 9
 ROYAL CANADIAN AIR FORCE PILOTS
 AVIATION DEATH RATE PER 1,000 LIFE
 YEARS OF EXPOSURE

	Regular 1949-1953	Auxiliary 1949-1953
<i>Age Groups</i>		
Under 25	15.2	19.7
25-29	10.9	12.3
30-39	7.3	10.0
40 and over		
All	10.1	12.4
<i>Rank</i>		
Pilot Officer and Flight Cadet	9.2	3.2
Flying Officer	14.0	14.9
Flight Lieutenant	6.3	9.5
Squadron Leader	6.0	8.7
Wing Commander and Higher Ranks	1.0	11.2
All	10.1	12.4

In the classes shown in last year's report there were no important changes in death rates. In the military pilot figures for exposures prior to July 1, 1950 there was, of course, no additional exposure but some of the previously published figures have been corrected. In the exposure of July 1, 1953 and later, there was comparatively little exposure below attained age 30. This fact is doubtless related to recent underwriting practices.

The intercompany experience on pilots flying only for pleasure or personal business was this year divided by groups of attained ages. While there was no great difference in fatality rates by age, there was some indication that the rates at ages under 30 were somewhat higher. It was notable, however, that the bulk of the exposure was at higher attained ages, which is probably not true of all pilots flying for pleasure or per-

TABLE 10
 INTERCOMPANY EXPERIENCE ON PILOTS APPARENTLY
 ACTIVE AT TIME OF ISSUE
 Issues of 1946 and Later, Exposed to June 30, 1954
 (December 31, 1953 in Some Companies)
 By Policies

STATUS AT ISSUE AND ATTAINED INSURANCE AGE AT BEGINNING OF CALENDAR YEAR OF EXPOSURE	ISSUED WITH AVIATION EXTRA PREMIUM			ISSUED WITH AVIATION EXCLUSION PROVISION		
	Policy Years of Exposure	Aviation Deaths	Rate per 1,000	Policy Years of Exposure	Aviation Deaths	Rate per 1,000
<i>Civilian Pilots</i>						
Employed as scheduled airline pilot	18,080	41	2.3	No study made		
Having commercial or trans- port certificate but flying only for pleasure or personal business (not for hire), or having private certificate and 100 or more solo hours (or solo hours not stated)						
<i>Less than 50 hours in pre- ceding 12 months</i>						
Under 25	748	1	†	1,997	0	†
25-29	2,754	5	1.8	7,441	10	1.3
30-34	3,650	5	1.4	8,626	1	†
35 and over	7,231	8	1.1	11,565	10	.9
Total	14,383	19	1.3	29,629	21	.7
<i>50-99 hours in preceding 12 months</i>						
Under 25	510	2	†	908	1	†
25-29	1,446	2	†	2,616	4	†
30-34	2,149	6	2.8	3,271	2	†
35 and over	5,430	9	1.7	5,104	3	†
Total	9,535	19	2.0	11,899	10	.8
<i>100 or more hours in pre- ceding 12 months</i>						
Under 25	1,219	5	4.1	1,167	1	†
25-29	2,966	15	5.1	3,493	10	2.9
30-34	4,228	12	2.8	3,852	15	3.9
35 and over	11,046	40	3.6	6,429	15	2.3
Total	19,459	72	3.7	14,941	41	2.7
<i>Hours in preceding 12 months not stated</i>						
Under 25	193	2	†	792	0	†
25-29	581	3	†	1,851	2	†
30-34	719	0	†	2,084	1	†
35 and over	1,693	5	3.0	3,113	3	†
Total	3,186	10	3.1	7,840	6	.8

† Fatality rates not shown in classes with less than 5 deaths.

TABLE 10—Continued

EXPOSURE PERIOD, AND ATTAINED INSURANCE AGE AT BEGINNING OF CALENDAR YEAR OF EXPOSURE	ISSUED WITH AVIATION EXTRA PREMIUM			ISSUED WITH AVIATION EXCLUSION PROVISION		
	Policy Years of Exposure	Aviation Deaths	Rate per 1,000	Policy Years of Exposure	Aviation Deaths	Rate per 1,000

*Military Pilots on Full-Time Duty, Including Student Pilots; Deaths in Combat Missions Included, Whether or Not Resulting from Enemy Action**

	U.S. ARMY OR AIR FORCE					
<i>Prior to July 1, 1950</i>						
Under 25						
800 or more solo hours	806	11	13.7	269	2	†
All other	1,203	21	17.5	1,138	17	15.0
25-29						
800 or more solo hours	8,767	52	5.9	1,663	8	4.8
All other	2,294	26	11.3	1,733	11	6.3
30-34	8,968	45	5.0	1,282	6	4.7
35 and over	2,344	1	†	153	0	†
<i>July 1, 1950 to June 30, 1953</i>						
Under 25						
800 or more solo hours	267	7 (3)	26.2	100	3 (1)	†
All other	901	30(11)	33.3	593	21(11)	35.4
25-29						
800 or more solo hours	9,031	119(49)	13.2	1,608	11 (6)	6.8
All other	3,076	53(16)	17.2	1,625	19 (3)	11.7
30-34	25,810	168(52)	6.5	3,678	20 (5)	5.4
35 and over	10,291	46(10)	4.5	932	2 (0)	†
<i>July 1, 1953 and Later</i>						
Under 25						
800 or more solo hours	30	0	†	18	0	†
All other	82	1	†	150	2	†
25-29						
800 or more solo hours	964	0	†	236	1	†
All other	552	3	†	287	2	†
30-34	5,846	11	1.9	957	2	†
35 and over	3,972	16 (1)	4.0	391	0	†

* Figures in parentheses indicate deaths from enemy action. When an aviator who was missing in action was declared presumably dead after June 30, 1953, the death is included in the Korean war period.

† Fatality rates not shown in classes with less than 5 deaths.

TABLE 10—Continued

EXPOSURE PERIOD, AND ATTAINED INSURANCE AGE AT BEGINNING OF CALENDAR YEAR OF EXPOSURE	ISSUED WITH AVIATION EXTRA PREMIUM			ISSUED WITH AVIATION EXCLUSION PROVISION		
	Policy Years of Exposure	Aviation Deaths	Rate per 1,000	Policy Years of Exposure	Aviation Deaths	Rate per 1,000
<i>Military Pilots on Full-Time Duty, Including Student Pilots; Deaths in Combat Missions Included, Whether or Not Resulting from Enemy Action*</i>						
U.S. NAVY‡						
<i>Prior to July 1, 1950</i>						
Under 25						
800 or more solo hours	689	5	7.3	205	1	†
All other	1,117	15	13.4	1,378	21	15.0
25-29						
800 or more solo hours	4,823	25	5.2	904	4	†
All other	2,076	25	12.0	1,224	6	5.0
30-34	4,070	20	4.9	777	3	†
35 and over	1,329	2	†	184	0	†
<i>July 1, 1950 to June 30, 1953</i>						
Under 25						
800 or more solo hours	285	5 (1)	17.5	72	1 (0)	†
All other	681	18 (7)	26.4	772	13 (5)	16.9
25-29						
800 or more solo hours	5,404	74(29)	13.7	908	10 (3)	11.0
All other	2,055	23 (5)	11.2	1,254	9 (3)	7.2
30-34	11,373	148(46)	13.0	1,907	24(10)	12.6
35 and over	4,945	35(10)	7.1	643	3 (2)	†
<i>July 1, 1953 and Later</i>						
Under 25						
800 or more solo hours	32	0	†	14	1	†
All other	64	0	†	101	1	†
25-29						
800 or more solo hours	632	3	†	137	1	†
All other	327	1	†	247	0	†
30-34	2,639	16	6.1	547	3	†
35 and over	1,686	8	4.7	230	2	†

* Figures in parentheses indicate deaths from enemy action. When an aviator who was missing in action was declared presumably dead after June 30, 1953, the death is included in the Korean war period.

† Fatality rates not shown in classes with less than 5 deaths.

‡ Includes Marine Corps but not Coast Guard.

TABLE 10—Continued

ATTAINED INSURANCE AGE AT BEGINNING OF CALENDAR YEAR OF EXPOSURE	ISSUED WITH AVIATION EXTRA PREMIUM			ISSUED WITH AVIATION EXCLUSION PROVISION		
	Policy Years of Exposure	Aviation Deaths	Rate per 1,000	Policy Years of Exposure	Aviation Deaths	Rate per 1,000

*Military Crew Members on Full-Time Duty; Deaths in Combat Missions Included,
Whether or Not Resulting from Enemy Action**

U.S. ARMY OR AIR FORCE						
Under 25	805	5(1)	6.2	1,039	2	†
25-29	4,724	42(7)	8.9	2,039	7(2)	3.4
30-34	6,783	51(12)	7.5	1,715	2	†
35 and over	2,288	12(3)	5.2	576	3	†
Total	14,600	110	7.5	5,369	14	2.6
U.S. NAVY‡						
Under 25	166	0	†	424	1	†
25-29	730	1	†	821	1	†
30-34	631	1	†	445	3	†
35 and over	253	0	†	177	1	†
Total	1,780	2	†	1,867	6	2.8

* Figures in parentheses indicate deaths from enemy action.

† Fatality rates not shown in classes with less than 5 deaths.

‡ Includes Marine Corps but not Coast Guard.

sonal business. This suggests that life insurance is more likely to be purchased by older pilots.

This year the investigation studied the experience of military crew members other than pilots. There was no great variation in fatality rates by attained age. The fatality rate among crew members of the United States Army or Air Force of 7.4 per 1,000 for all ages combined is close to the nearest available corresponding figure from government sources for all nonpilot rated personnel of 8.0 per 1,000 (*TSA 1953 Reports, 43*).

The experience on pilots employed as scheduled airline pilot at the time of application was divided by calendar year of exposure for comparison with government figures on persons employed as pilot by United States scheduled airlines. The comparison is shown in Table 11. The inter-

company fatality rates are of about the same magnitude as the government rates and show the same general trend. While there is a possibility that the average fatality rate of persons insured as scheduled airline pilot and still continuing to pay an aviation extra premium would tend to increase above the rate for those currently employed as airline pilot, as a result of some pilots failing to maintain the physical standard for airline pilot and transferring to some less well supervised kind of flying, there is not yet any definite indication that this has happened. At least five of the

TABLE 11
SCHEDULED AIRLINE PILOTS

PERIOD	INTERCOMPANY EXPERIENCE ISSUES OF 1946 AND LATER			ALL PILOTS EMPLOYED IN SCHEDULED FLYING BY UNITED STATES SCHEDULED AIRLINES
	PERSONS EMPLOYED AS SCHEDULED AIRLINE PILOT AT TIME OF APPLICATION—ISSUED WITH AVIATION EXTRA PREMIUM			
	Years of Exposure	Aviation Deaths	Rate per Policy Year of Exposure		Rate per Life Year of Exposure (from Table 1)
1946-1949	5,025	13	.0026	.0029
1947-1950	7,285	12	.0016	.0023
1948-1951	9,269	23	.0025	.0021
1949-1952	11,169	21	.0019	.0018
1950-1953	12,806	28	.0022	.0019
1951-1954*	10,425	23	.0022	

* Experience of some companies contributed only to December 31, 1953; others to June 30, 1954.

forty-one deaths occurred in other flying than that of scheduled airlines. Moreover, there is indication that some companies have included, in their contributed experience, pilots of nonscheduled or irregular airlines, whose fatality rate might be expected, on the basis of government figures, to be much higher than that for scheduled airline flying. In spite of these two factors, the intercompany experience on persons employed as scheduled airline pilot at the time of application has not been materially worse than that of all pilots employed in scheduled flying by United States scheduled airlines.