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# **2016 Aerospace Medical Certification Statistical Handbook**

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Final Report



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16. Abstract <p><b>Introduction.</b> The biennial Aerospace Medical Certification Statistical Handbook reports descriptive characteristics of all active U.S. civil aviation airmen and the aviation medical examiners (AMEs) that perform the required medical examinations. The 2016 handbook documents the most recent and most widely relevant data on active civil aviation airmen and AMEs.</p> <p><b>Methods.</b> Medical certification records from 2011-2016 were selected from the Document Imaging Workflow System (DIWS), which is the FAA medical certification database. All medical data were abstracted from the most recent medical examinations, with the exception of medical conditions that were historical and current. Only those with a non-expired medical certificate remained in the dataset. AME records were selected from the Designee Management System (DMS). The current status of each AME was determined as of December 31, 2016, retaining only those with an active status. Airman variables include age, issued and effective medical classes, height, weight, BMI, gender, select medical conditions, special issuances, and FAA region of residence. AME variables include AME type, age, gender, medical specialty, senior examiner status, and region.</p> <p><b>Results.</b> <i>Airmen:</i> As of December 31, 2016, there were 560,152 medically certified airmen age 16 and older, and 36.8%, 19.8%, and 43.5% were issued a 1<sup>st</sup> Class, 2<sup>nd</sup> Class, and 3<sup>rd</sup> Class medical certificate, respectively. Across all medical classes, the average age was 43 years, and 93.4% of the airmen were male. The mean BMI for both females and males was 24.1 and 27.2, respectively. Six percent of issued certificates required a special issuance. The most commonly reported medical condition was hypertension with medication, at 10.4%.</p> <p><i>Aviation medical examiners:</i> Of the 2,955 active AMEs, 93.3% were civilian, 0.6% federal, 6.1% military, and 0.1% other. Of these, 47.7% reported their medical specialty as family practice. Their average age was 60.8 years and 87.4% were male.</p> <p><b>Summary.</b> This report contains widely requested data on the active U.S. civil airman population. This report is updated biennially and is used by the aerospace community, including FAA leadership, aerospace researchers, advocacy groups, legislative staff, and the general public.</p>					
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## **2016 Aerospace Medical Certification Statistical Handbook**

### **Introduction**

The biennial Aerospace Medical Certification Statistical Handbook reports descriptive characteristics of all active U.S. civil aviation airmen and the aviation medical examiners (AMEs) that perform the required medical examinations. The 2016 handbook documents the most recent and most widely relevant data on active civil aviation airmen and AMEs.

### **Methods**

Medical certification records from 2011-2016 were selected from the Document Imaging Workflow System (DIWS), which is the FAA medical certification database. All medical data were abstracted from the most recent medical examinations, with the exception of medical conditions that were historical and current. Only those with a non-expired medical certificate remained in the dataset.

AME records were selected from the Designee Management System (DMS). The current status of each AME was determined as of December 31, 2016, retaining only those with an active status.

Airman variables include age, issued and effective medical classes, height, weight, BMI, gender, select medical conditions, special issuances, and FAA region of residence. AME variables include AME type, age, gender, medical specialty, senior examiner status, and region.

### **Results**

**Airmen:** As of December 31, 2016, there were 560,152 medically certified airmen age 16 and older, and 36.8%, 19.8%, and 43.5% were issued a first, second, and third class medical certificate, respectively. Across all medical classes, the average age was 43 years, and 93.4% of the airmen were male. The mean BMI for both females and males was 24.1 and 27.2, respectively. Six percent of issued certificates required a special issuance. The most commonly reported medical condition was hypertension with medication, at 10.4%.

**AME:** Of the 2,955 active AMEs, 93.3% were civilian, 0.6% federal, 6.1% military, and 0.1% other. Of these, 47.7% reported their medical specialty as family practice. Their average age was 60.8 years and 87.4% were male.

### **Summary**

This report contains widely requested data on the active U.S. civil airman population. This report is updated biennially and is used by the aerospace community, including FAA leadership, aerospace researchers, advocacy groups, legislative staff, and the general public.

## Section I. Aviation Medical Examiners

This section characterizes the aviation medical examiners during 2016. All analyses represent data through December 31, 2016. Data may slightly fluctuate by year from systematic changes and corrections to the records.

An aviation medical examiner (AME) is a physician authorized by the Federal Aviation Administration (FAA) to perform airmen physical examinations for issuance of FAA medical certificates. These physicians are designated according to the geographical distribution of airmen. There are also military facilities (installations) designated to perform FAA airmen examinations of military personnel for issuance of second- and third-class certificates.

AME seminars are held in each region and at Oklahoma City's Civil Aerospace Medical Institute to acquaint these physicians with the regulations and procedures governing the issuance of FAA medical certificates.

Table 1. FAA Aviation Medical Examiners by AME Type

<b>AME Type</b>	<b>2016 Number (Percent of Total)</b>
Civilian	2,756 (93.3)
Federal	17 (0.6)
Military	180 (6.1)
Other	2 (0.1)
Total	2,955

Table 2. Designated FAA Aviation Medical Examiners for 2016 by Region

Region	Newly Appointed Number (Percent of Total)	All Active Number (Percent of Total)
Alaskan	2 (1.7)	49 (1.7)
Central	4 (3.3)	165 (5.6)
Eastern	10 (8.3)	321 (10.9)
Federal/Military/Official	34 (28.1)	198 (6.7)
Great Lakes	7 (5.8)	399 (13.5)
International	17 (14.1)	305 (10.3)
New England	4 (3.3)	94 (3.2)
Northwest Mountain	9 (7.4)	281 (9.5)
Southern	15 (12.4)	562 (19.0)
Southwest	13 (10.7)	332 (11.2)
Western-Pacific	6 (5.0)	249 (8.4)
Total	121	2,955

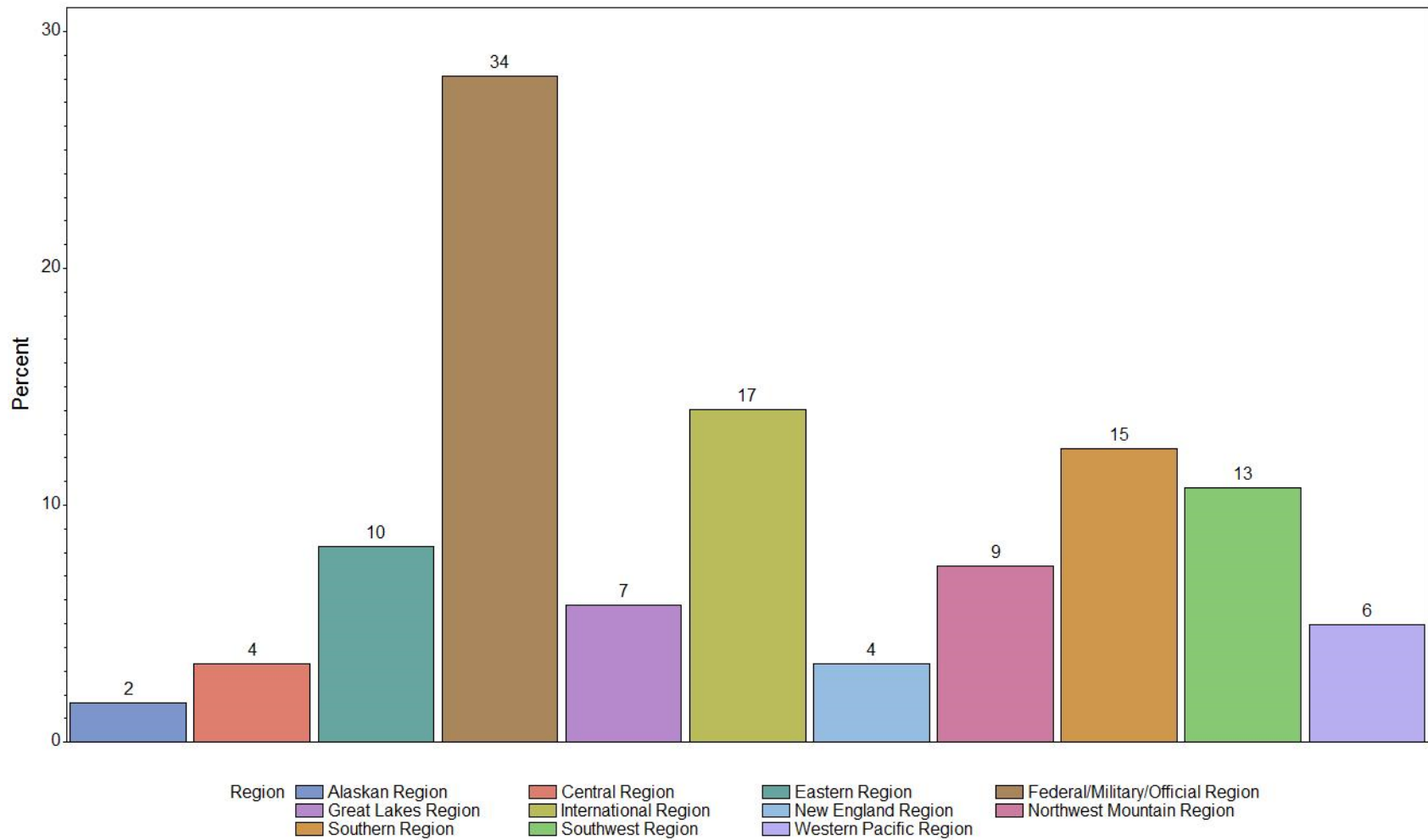


Figure 1. Distribution of Newly Appointed FAA Aviation Medical Examiners in 2016 by Region

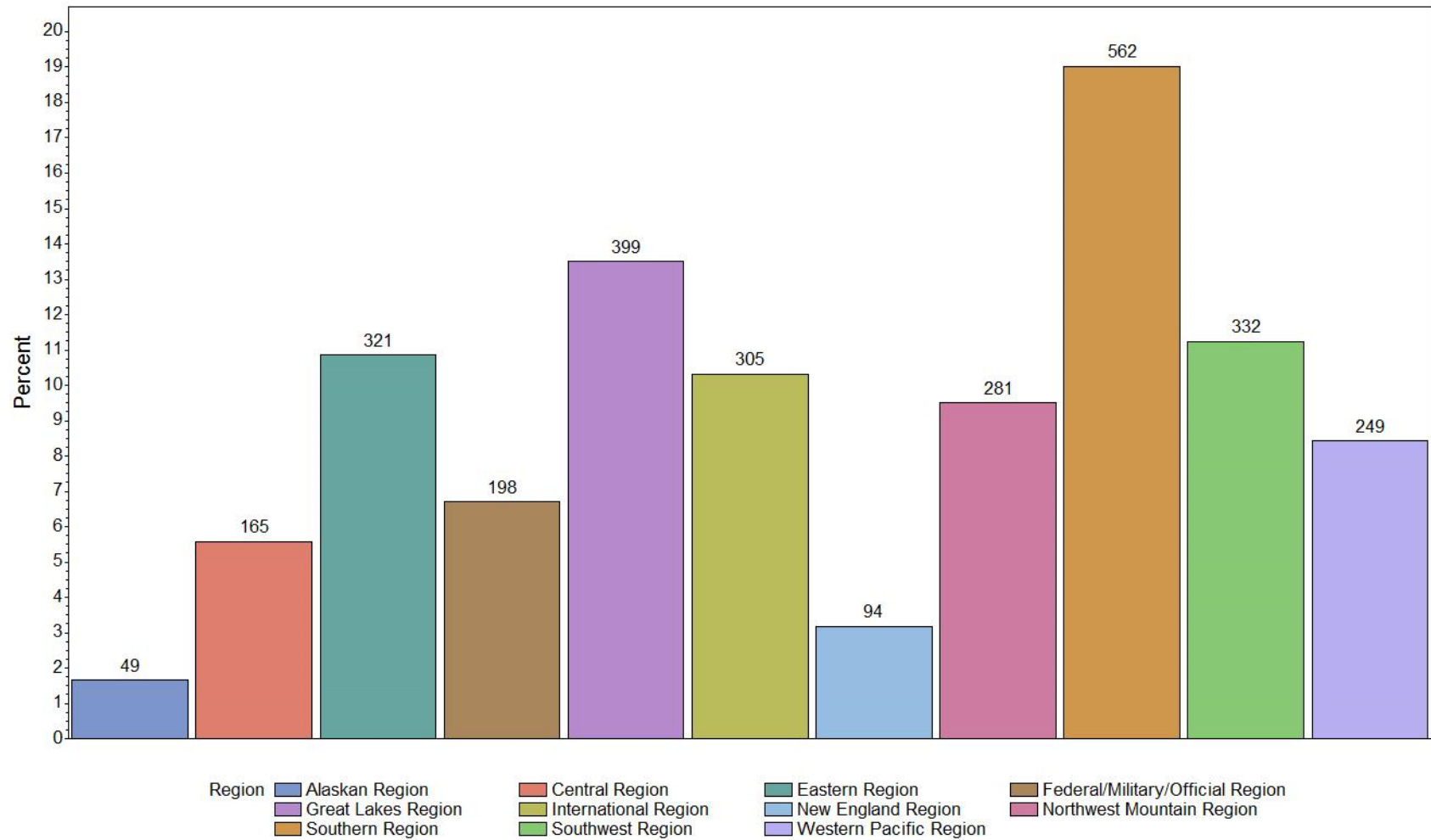


Figure 2. Distribution of Active FAA Aviation Medical Examiners in 2016 by Region

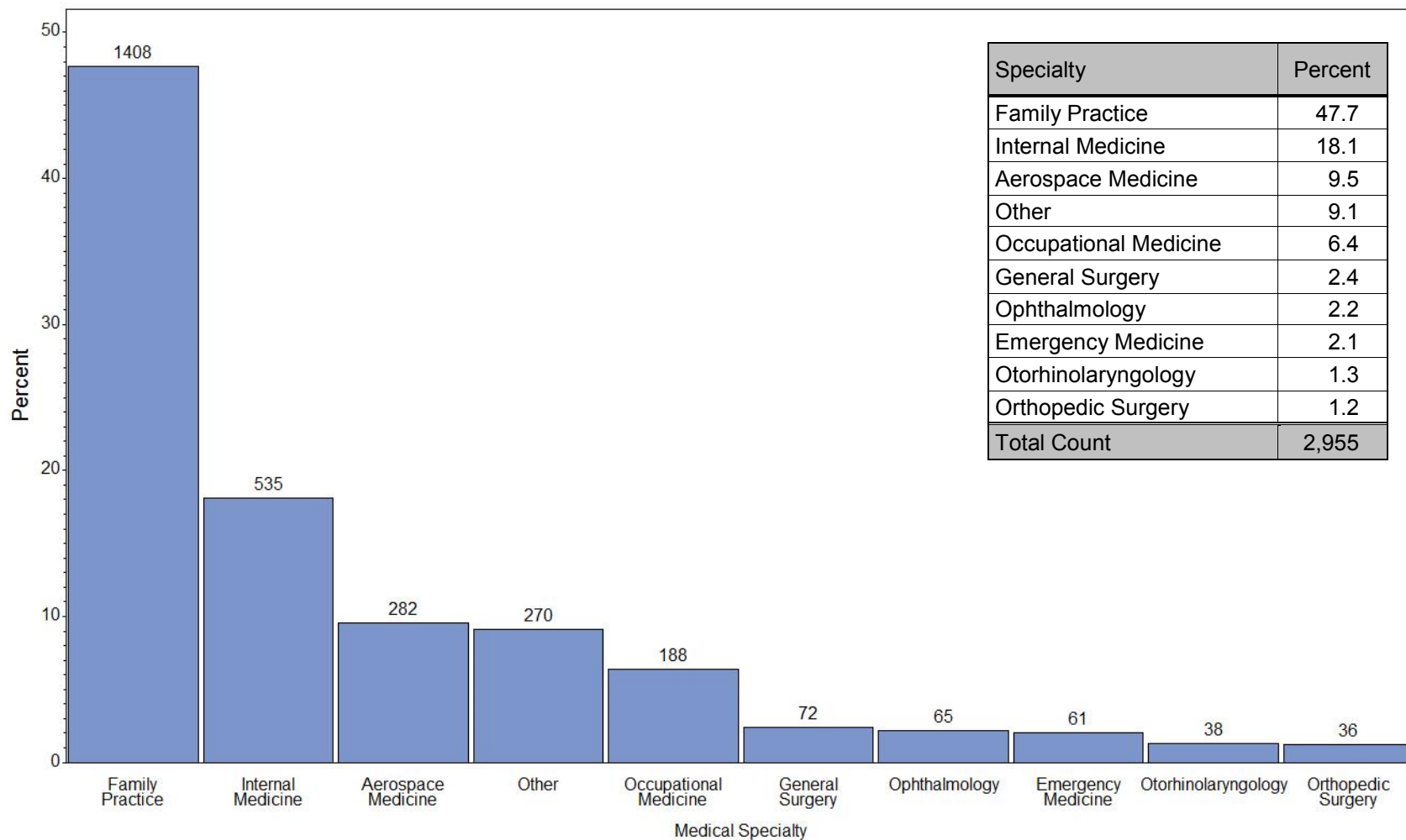


Figure 3. Medical Practice Specialty of Active FAA Aviation Medical Examiners

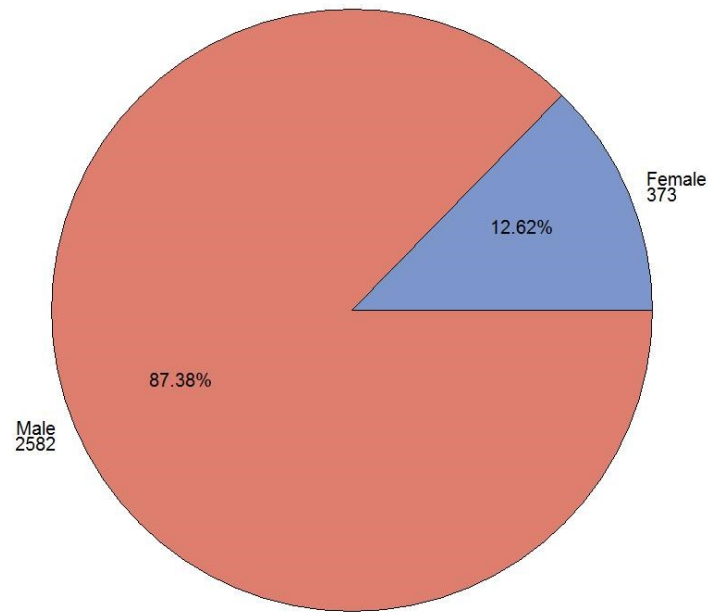


Figure 4. Gender Distribution of Active FAA Aviation Medical Examiners

Table 3. Senior Examiner Status of Active FAA Aviation Medical Examiners

Senior Examiner	Number (Percent)
Yes	1,947 (65.9)
No	1,008 (34.1)
Total	2,955

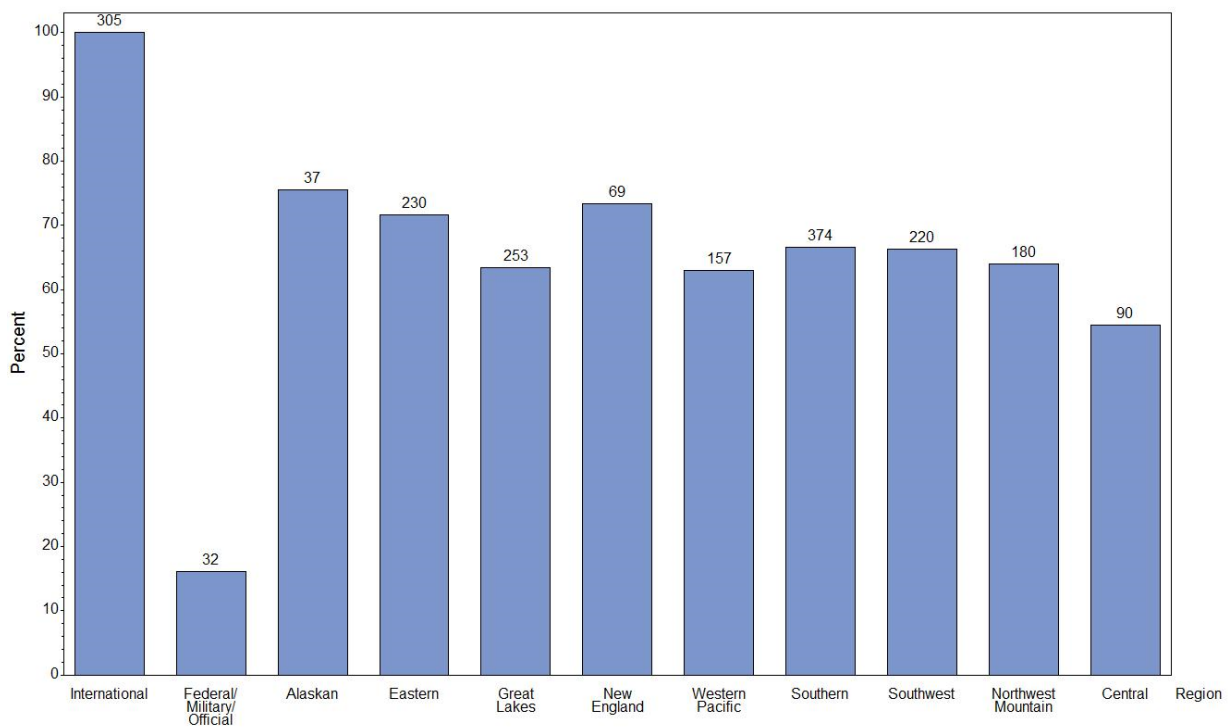


Figure 5. Senior Examiner Status of Active FAA Aviation Medical Examiners by Region

Table 4. Age by Gender of Active FAA Aviation Medical Examiners

		Number	Mean	Median	Standard Deviation	Minimum	Maximum
Overall		2,955	60.8	61.7	11.5	28.7	93.5
Gender	Female	373	54.5	55.2	11.5	28.7	86.2
	Male	2,582	61.7	62.5	11.2	29.2	93.5

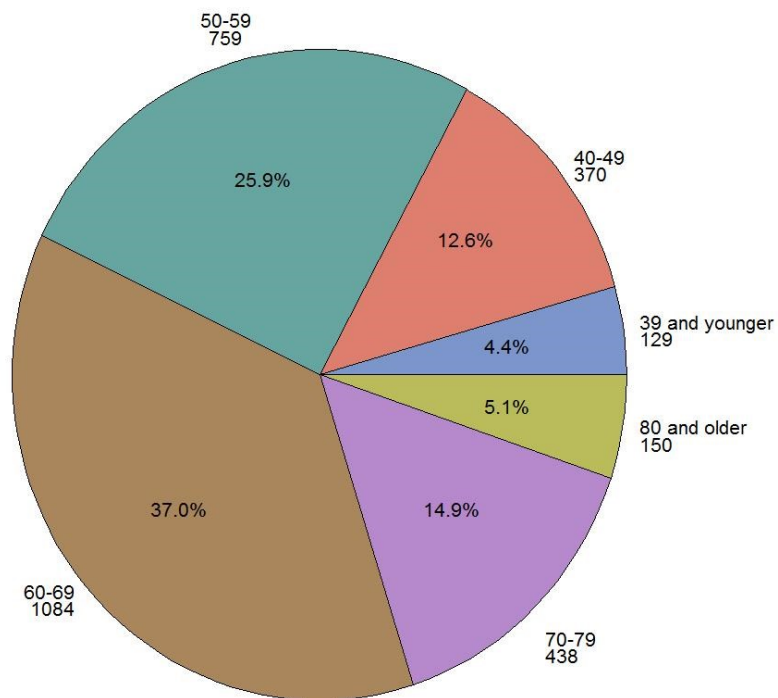


Figure 6. Age Group of Active FAA Aviation Medical Examiners

## Section II. Airman Medical Certification

The Aerospace Medical Certification Division is the central screening facility and repository within the Federal Aviation Administration for the collection, investigation, adjudication, and analysis of medical data.

Activities of the Aerospace Medical Certification Division are presented in this section. Data are presented by calendar year and represent the most recent medical examination data for all active civil aviation airmen in the United States and its territories, as of December 31, 2016. Data may slightly fluctuate annually from systematic changes and corrections to the records.

*Class issued* represents the medical class certificate that was issued at the time of the examination. As of July 24, 2008, if the airman is under 40, first- and second-class certificates are valid for 1 year, and third-class certificates are valid for 5 years. If the airman is 40 and older, first-class certificates are valid for 6 months, second-class for 1 year, and third-class for 2 years. The length of certificate validity varies for those requiring a special issuance.

*Effective medical class* is determined by class issued, the age of the airman, time since exam, and whether the airman had a time-limited certificate. A certificate can be issued as a higher class (i.e. first-class) and become valid as a lower class certificate (e.g., third-class) as the validity period expires for each higher class.

All medical data were abstracted from the most recent medical examinations, with the exception of medical conditions. Medical conditions are determined by whether the airman has ever reported the condition on any past or current medical examination. Body mass index (BMI) classifications are as follows: *Underweight* (less than 18.5), *Normal* (18.5 to 24.9), *Overweight* (25 to 29.9), and *Obese* (greater than or equal to 30).

Table 5. Number of Medical Applications Processed by Year

Year	Number of Applications	Percent Change From Previous Year
2006	440,271	N/A
2007	452,594	2.8
*2008	425,275	-6.0
2009	397,176	-6.6
2010	394,723	-0.6
2011	400,131	1.4
2012	396,361	-0.9
2013	394,517	-0.5
2014	391,733	-0.7
2015	393,476	0.4
2016	398,254	1.2

\*Policy change July 24, 2008 lengthened the time of certificate validity for those under 40 years of age.

Table 6. Issued and Effective Medical Class by Region

Region *	First				Second			Third		Total Active Airmen				
	Effective Class				Effective Class			Effective Class				Effective Class		
	1st Class Certified	1	2	3	2nd Class Certified	2	3	3rd Class Certified	3	Total Airmen Certified	Percent of Total Airmen	1	2	3
Alaskan	2,106	1,672	142	292	1,910	1,239	671	3,686	3,686	7,702	1	1,672	1,381	4,649
Central	5,172	3,617	442	1,113	4,912	3,095	1,817	12,105	12,105	22,189	4	3,617	3,537	15,035
Eastern	19,676	14,206	1,257	4,213	11,564	6,615	4,949	28,396	28,396	59,636	11	14,206	7,872	37,558
Great Lakes	26,936	19,425	1,462	6,049	12,573	7,519	5,054	34,258	34,258	73,767	13	19,425	8,981	45,361
New England	6,253	4,668	396	1,189	3,225	1,896	1,329	9,629	9,629	19,107	3	4,668	2,292	12,147
Northwest-Mountain	20,994	15,512	1,384	4,098	13,781	7,900	5,881	25,264	25,264	60,039	11	15,512	9,284	35,243
Southern	47,985	34,751	3,526	9,708	23,313	14,439	8,874	48,504	48,504	119,802	21	34,751	17,965	67,086
Southwest	23,489	16,811	1,690	4,988	15,062	9,465	5,597	30,038	30,038	68,589	12	16,811	11,155	40,623
Western-Pacific	26,702	18,470	1,807	6,425	17,669	10,464	7,205	38,512	38,512	82,883	15	18,470	12,271	52,142
US Total	179,313	129,132	12,106	38,075	104,009	62,632	41,377	230,392	230,392	513,714	92	129,132	74,738	309,844
International	26,688	9,741	1,689	15,258	6,704	2,496	4,208	12,983	12,983	46,375	8	9,741	4,185	32,449
Total	206,001	138,873	13,795	53,333	110,713	65,128	45,585	243,375	243,375	560,089	100	138,873	78,923	342,293
Percent of Total Certified Airmen	36.8				19.8			43.5		100.0		24.8	14.1	61.1

\*63 airmen with unknown region

Table 7. Issued Medical Class by State of Residence and Gender

State of Residence *	Issued Medical Class						Total Airmen	
	First		Second		Third			
	Female	Male	Female	Male	Female	Male	Female	Male
Alabama	59	1,195	72	2,175	199	3,270	330	6,640
Alaska	197	1,909	149	1,761	363	3,323	709	6,993
Arizona	460	6,636	233	3,391	510	6,492	1,203	16,519
Arkansas	43	899	32	1,261	140	2,280	215	4,440
California	1,102	14,018	836	10,582	2,363	25,765	4,301	50,365
Colorado	515	6,387	185	2,489	575	5,947	1,275	14,823
Connecticut	80	1,513	49	639	146	2,177	275	4,329
Delaware	31	465	10	236	39	481	80	1,182
District of Columbia	9	129	10	86	39	274	58	489
Florida	1,380	22,215	580	9,476	1,780	18,769	3,740	50,460
Georgia	357	7,457	150	2,788	425	6,048	932	16,293
Hawaii	181	1,364	76	713	84	560	341	2,637
Idaho	50	867	85	1,363	147	2,046	282	4,276
Illinois	393	5,584	173	2,181	389	5,859	955	13,624
Indiana	183	2,919	81	1,342	256	3,841	520	8,102
Iowa	29	674	34	931	142	2,591	205	4,196
Kansas	68	1,300	70	1,448	255	3,156	393	5,904
Kentucky	106	2,111	32	845	157	2,119	295	5,075
Louisiana	47	1,269	49	1,421	124	2,241	220	4,931
Maine	28	480	45	526	77	1,053	150	2,059
Maryland	104	1,781	105	1,491	399	3,497	608	6,769
Massachusetts	132	1,929	66	980	308	3,646	506	6,555
Michigan	306	4,153	100	1,806	359	5,416	765	11,375
Minnesota	316	4,434	128	1,825	316	4,510	760	10,769
Mississippi	49	1,000	34	923	107	1,780	190	3,703
Missouri	130	2,225	77	1,680	253	3,807	460	7,712
Montana	61	670	74	966	148	1,614	283	3,250
Nebraska	41	705	13	659	121	1,780	175	3,144
Nevada	187	2,531	118	1,553	216	2,193	521	6,277
New Hampshire	80	1,377	56	577	83	1,177	219	3,131
New Jersey	172	2,687	83	1,262	206	3,417	461	7,366
New Mexico	38	551	61	902	143	1,593	242	3,046
New York	312	4,316	153	2,344	519	6,741	984	13,401
North Carolina	259	4,555	121	2,334	389	5,640	769	12,529
North Dakota	41	1,383	41	790	79	1,162	161	3,335
Ohio	240	4,377	123	1,980	432	6,198	795	12,555
Oklahoma	92	1,524	93	1,834	312	3,708	497	7,066
Oregon	139	1,766	158	2,340	294	3,466	591	7,572
Pennsylvania	253	4,485	182	2,436	391	5,700	826	12,621
Rhode Island	20	287	11	115	37	395	68	797
South Carolina	86	1,995	53	1,100	184	2,728	323	5,823
South Dakota	29	348	21	580	73	951	123	1,879
Tennessee	207	4,105	122	2,129	292	4,081	621	10,315
Texas	875	18,151	528	8,881	1,374	18,123	2,777	45,155
Utah	180	3,179	139	2,040	133	2,095	452	7,314
Vermont	22	305	10	151	36	494	68	950
Virginia	279	4,267	156	2,556	454	5,319	889	12,142
Washington	520	6,381	265	3,251	630	7,153	1,415	16,785
West Virginia	16	287	24	338	59	765	99	1,390
Wisconsin	122	2,108	92	1,310	325	4,092	539	7,510
Wyoming	23	256	26	400	76	940	125	1,596
US Territories	63	1,037	37	587	81	852	181	2,476
International	1,517	25,171	371	6,333	899	12,084	2,787	43,588
Total	12,229	193,717	6,592	104,107	17,938	225,409	36,759	523,233

\*160 airmen missing state

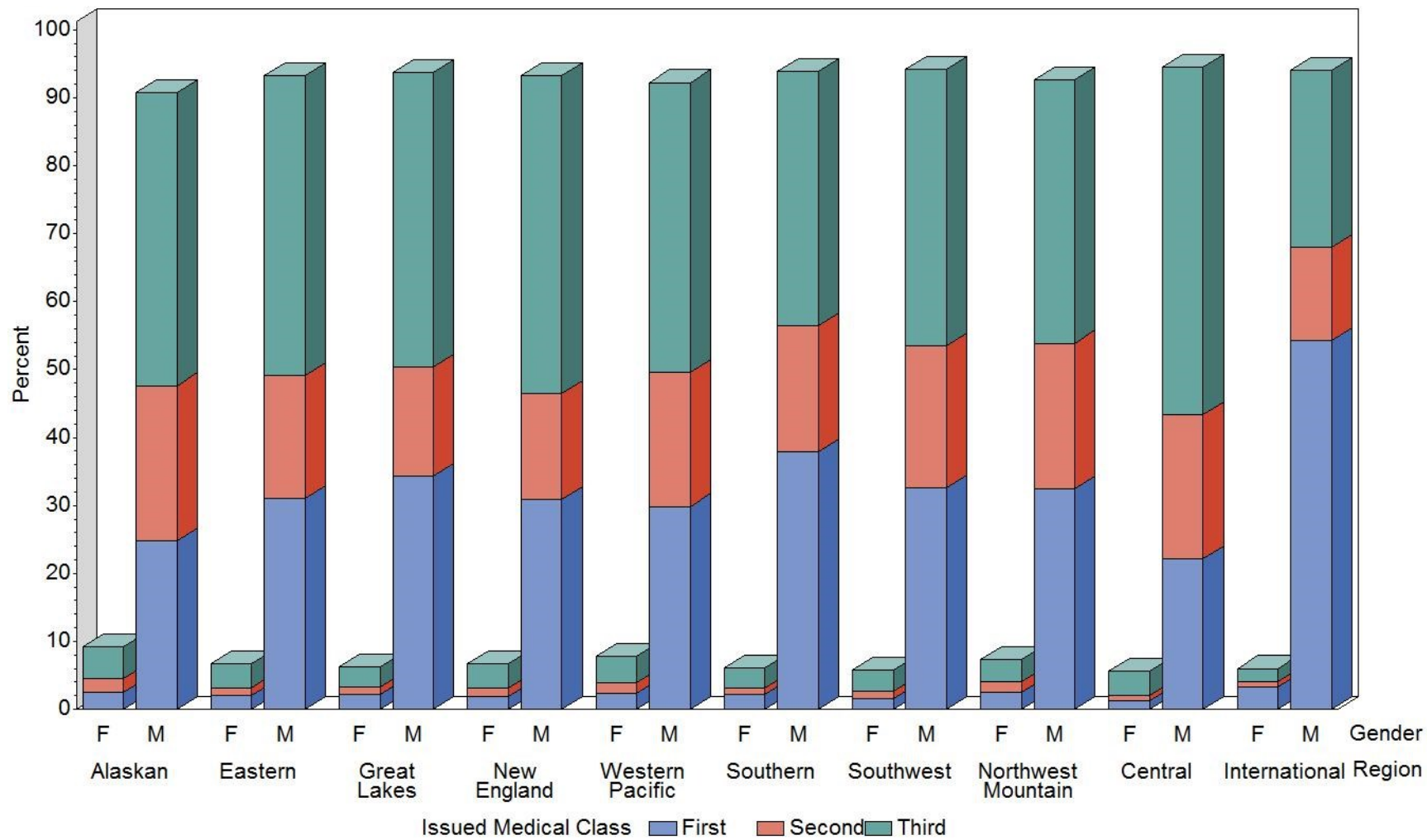


Figure 7. Issued Medical Class by Region and Gender

Table 8. Age as of 12/31/2016 of all Active Airmen by Effective Medical Class

Effective Medical Class	Number of Airmen	Mean	Median	Standard Deviation
First	138,875	44.3	45.7	12.9
Second	78,926	49.8	50.5	13.9
Third	342,351	43.1	39.7	17.2
All Classes	560,152	44.3	43.6	15.9

Table 9. Age Groups of all Active Airmen by Effective Medical Class

Age Group (as of 12/31/2016)	Effective Medical Class Number (Percent)		
	First	Second	Third
16-19	3,980 (2.87)	1,421 (1.80)	10,854 (3.17)
20-24	8,226 (5.92)	3,022 (3.83)	45,465 (13.28)
25-29	11,355 (8.18)	3,823 (4.84)	48,501 (14.17)
30-34	14,527 (10.46)	4,771 (6.04)	37,150 (10.85)
35-39	15,535 (11.19)	5,172 (6.55)	30,760 (8.98)
40-44	13,640 (9.82)	8,893 (11.27)	25,301 (7.39)
45-49	17,115 (12.32)	11,156 (14.13)	20,069 (5.86)
50-54	19,740 (14.21)	11,287 (14.30)	23,633 (6.90)
55-59	19,321 (13.91)	10,025 (12.70)	27,114 (7.92)
60-64	12,378 (8.91)	7,823 (9.91)	26,637 (7.78)
65+	3,058 (2.20)	11,533 (14.61)	46,867 (13.69)
Total	138,875	78,926	342,351

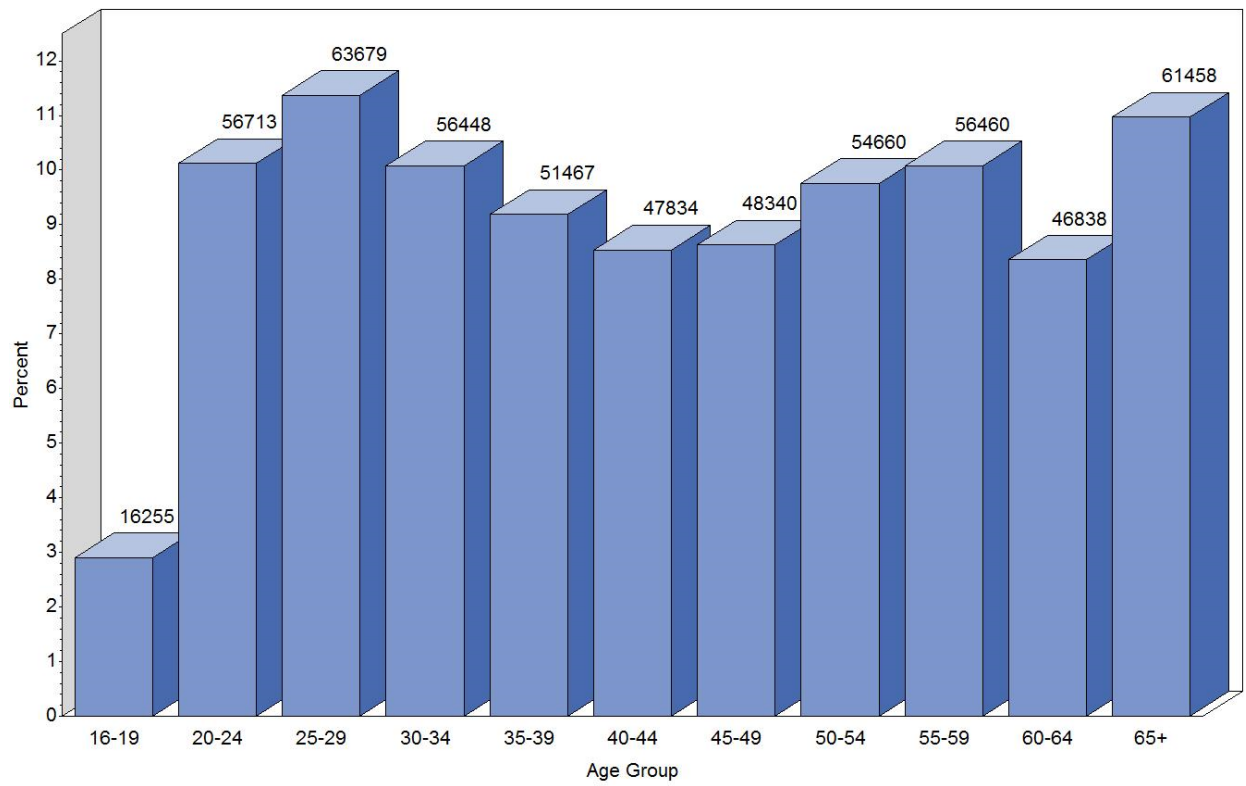


Figure 8. Age Groups as of 12/31/2016 of all Active Airmen

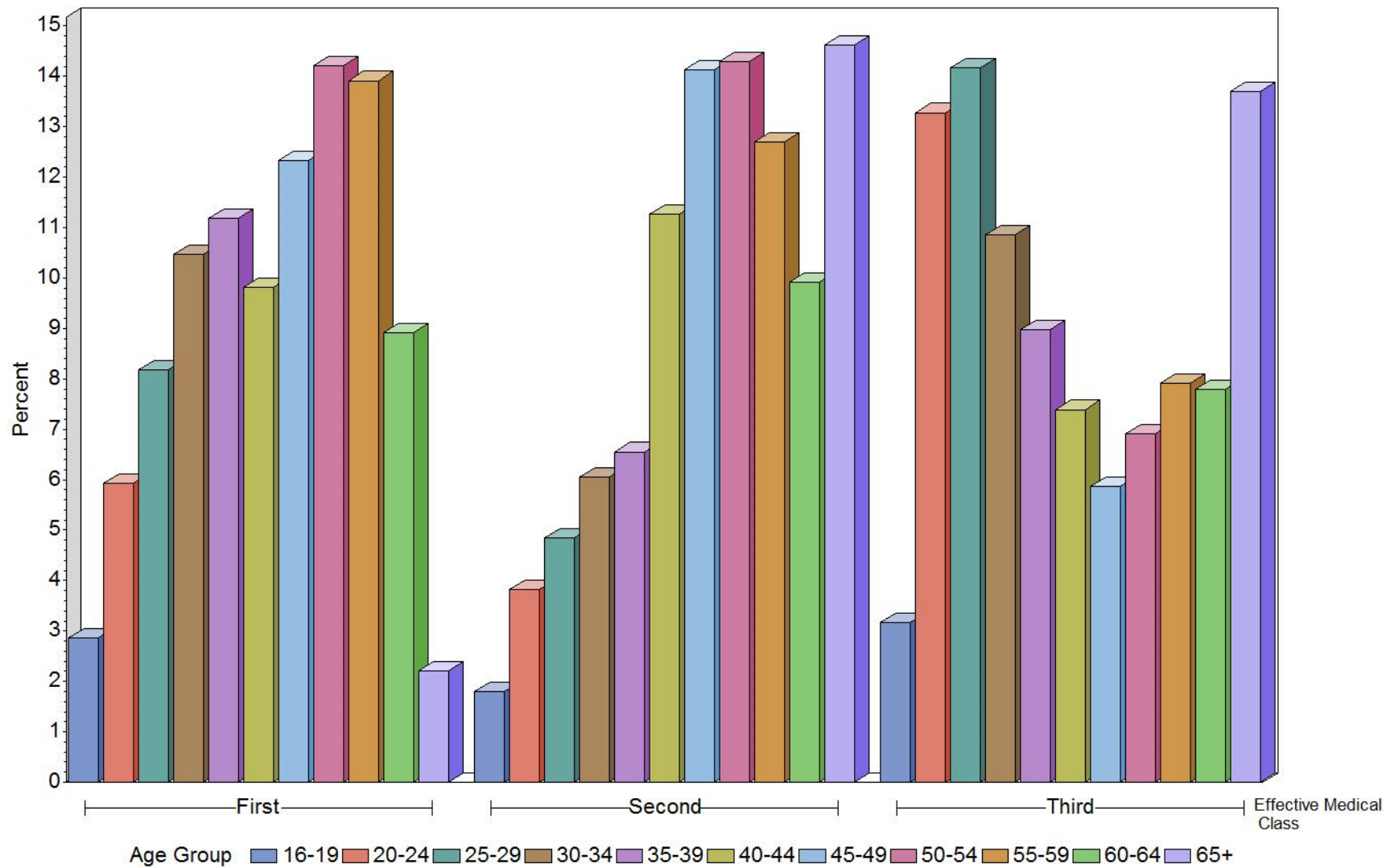


Figure 9. Age Groups as of 12/31/2016 by Effective Medical Class for all Active Airmen

Table 10. Age at Exam Summary Statistics for Active Airmen by Issued Medical Class

Issued Medical Class	Number of Airmen	Mean	Median	Standard Deviation
First	206,024	40.5	40.2	14.2
Second	110,728	43.8	43.5	16.2
Third	243,400	44.7	45.3	18.0
All Classes	560,152	43.0	42.8	16.5

Table 11. Age Groups for all Active Airmen by Issued Medical Class

Age Group (at time of exam)	Issued Medical Class Number (Percent)		
	First	Second	Third
16-19	15,717 (7.63)	6,383 (5.76)	17,597 (7.23)
20-24	22,554 (10.95)	10,928 (9.87)	30,196 (12.41)
25-29	22,241 (10.80)	11,110 (10.03)	22,653 (9.31)
30-34	22,574 (10.96)	11,064 (9.99)	19,411 (7.97)
35-39	19,544 (9.49)	10,705 (9.67)	19,702 (8.09)
40-44	17,484 (8.49)	7,960 (7.19)	11,247 (4.62)
45-49	21,847 (10.60)	9,941 (8.98)	16,954 (6.97)
50-54	23,595 (11.45)	11,014 (9.95)	21,372 (8.78)
55-59	21,896 (10.63)	10,293 (9.30)	23,980 (9.85)
60-64	14,457 (7.02)	8,484 (7.66)	22,619 (9.29)
65+	4,115 (2.00)	12,846 (11.60)	37,669 (15.48)
Total	206,024	110,728	243,400

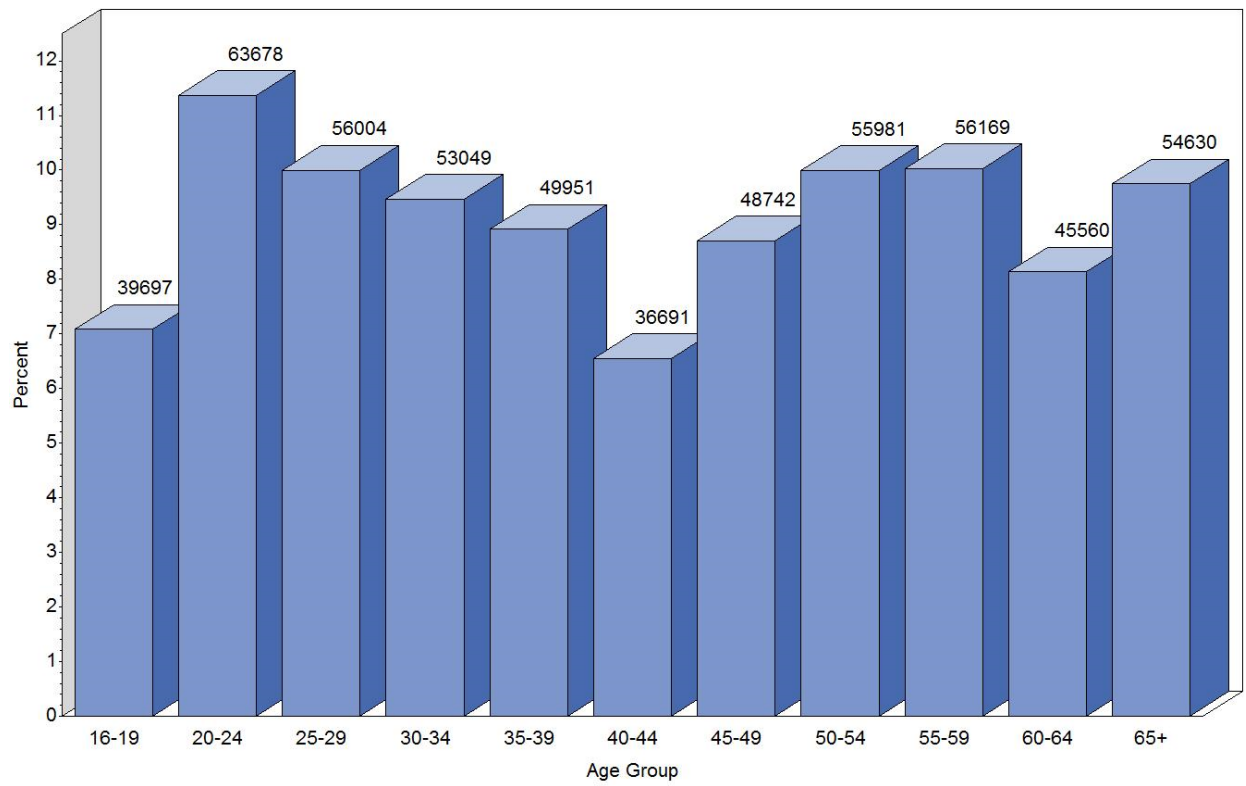


Figure 10. Age Group of all Active Airmen at Time of Exam

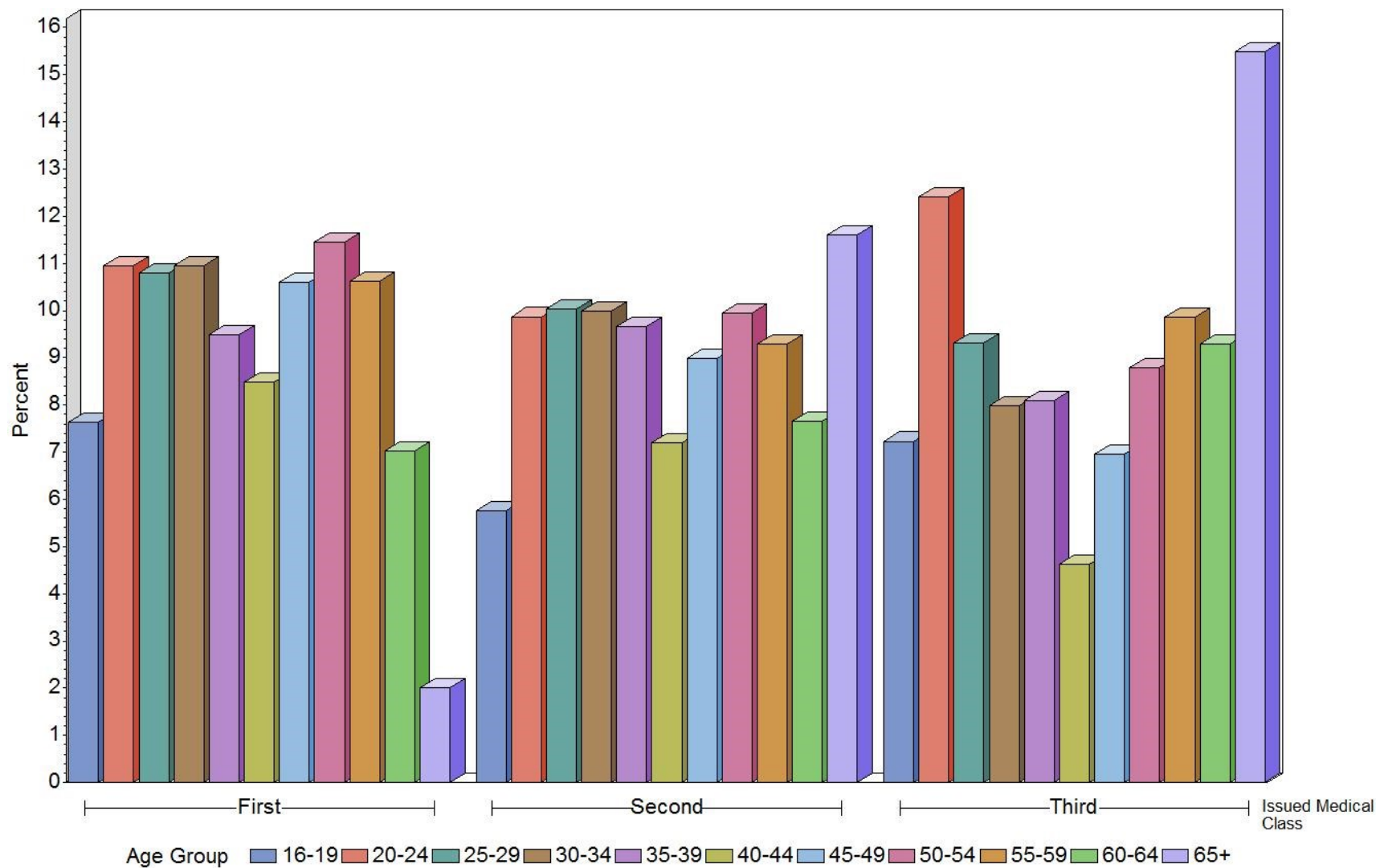


Figure 11. Age Groups by Issued Medical Class for all Active Airmen at Time of Exam

Table 12. Age at Time of Exam by Issued Medical Class and Gender

Age Group	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
16-19	1,797	13,920	850	5,533	2,625	14,972	5,272	34,425
20-24	1,946	20,608	911	10,017	3,549	26,647	6,406	57,272
25-29	1,822	20,419	935	10,175	2,201	20,452	4,958	51,046
30-34	1,530	21,044	849	10,215	1,709	17,702	4,088	48,961
35-39	1,174	18,370	761	9,944	1,379	18,323	3,314	46,637
40-44	950	16,534	460	7,500	696	10,551	2,106	34,585
45-49	1039	20,808	459	9,482	978	15,976	2,476	46,266
50-54	958	22,637	463	10,551	1,194	20,178	2,615	53,366
55-59	683	21,213	396	9,897	1,253	22,727	2,332	53,837
60-64	300	14,157	283	8,201	1,060	21,559	1,643	43,917
65+	33	4,082	227	12,619	1,301	36,368	1,561	53,069
Total	12,232	193,792	6,594	104,134	17,945	225,455	36,771	523,381

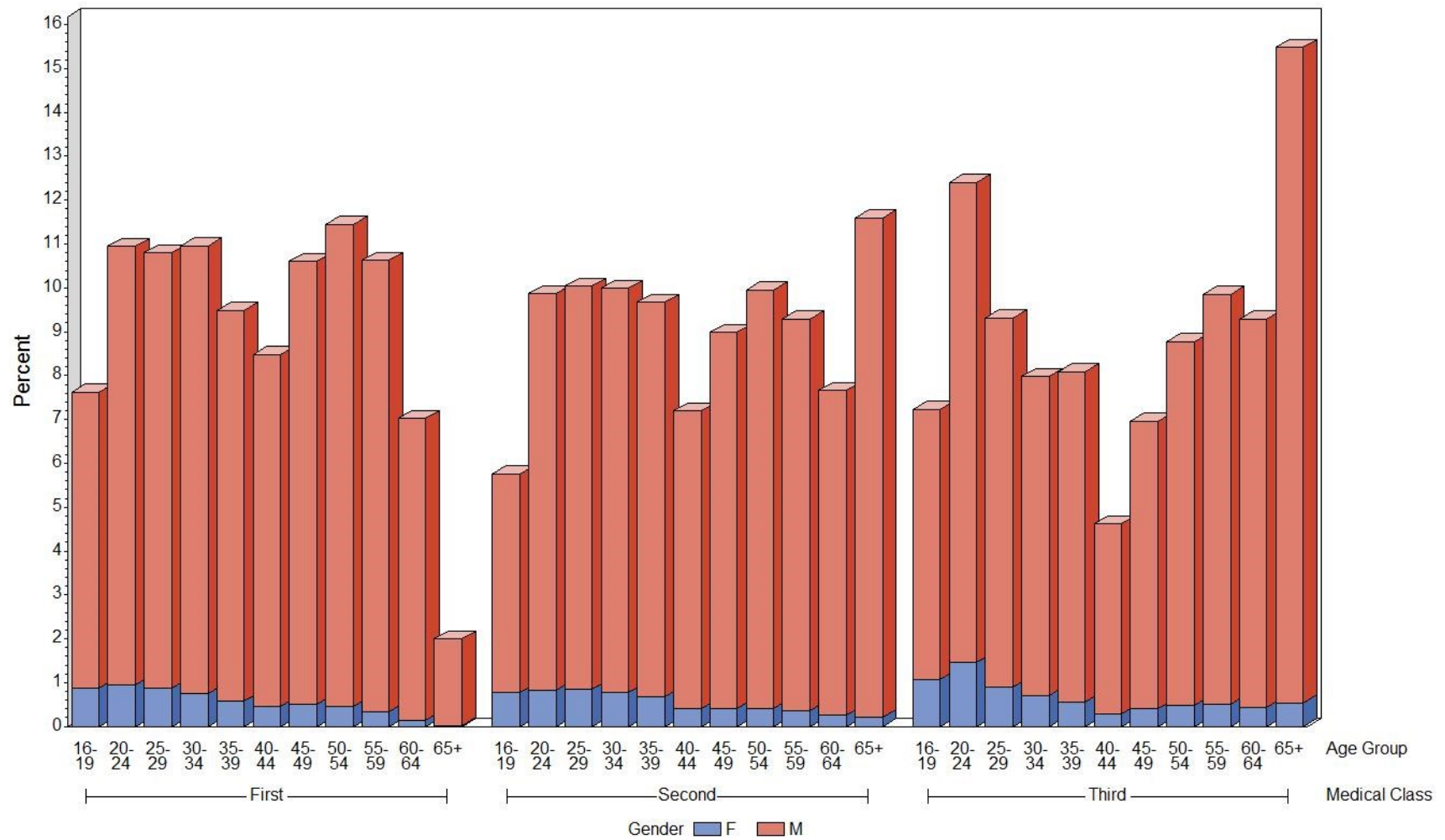


Figure 12. Age Group at Time of Exam by Gender and Issued Medical Class

Table 13. Height (Inches) of all Active Airmen by Gender and Issued Medical Class

Issued Medical Class*		Number of Airmen	Mean	Median	Standard Deviation
First	Females	12,231	65.4	65.0	2.6
	Males	193,786	70.5	71.0	2.7
Second	Females	6,594	65.3	65.0	2.7
	Males	104,133	70.5	70.0	2.7
Third	Females	17,942	65.2	65.0	2.8
	Males	225,445	70.5	70.0	2.8
All Classes	Females	36,767	65.3	65.0	2.7
	Males	523,364	70.5	71.0	2.7

\*21 airmen missing height

Table 14. Height (Inches) by Issued Medical Class and Gender

Height*	Issued Medical Class						Total Airmen	
	First		Second		Third			
	Female	Male	Female	Male	Female	Male	Female	Male
<59	54	119	46	92	161	208	261	419
59	55	46	38	58	106	116	199	220
60	213	86	120	95	397	244	730	425
61	389	98	228	78	665	183	1,282	359
62	849	182	526	114	1,418	332	2,793	628
63	1,208	426	679	272	1,895	682	3,782	1,380
64	1,814	1,309	1,005	723	2,529	1,772	5,348	3,804
65	1,786	3,012	921	1,627	2,570	3,663	5,277	8,302
66	1,847	6,988	963	3,830	2,531	8,418	5,341	19,236
67	1,523	12,016	783	6,378	2,150	14,167	4,456	32,561
68	1,119	18,652	539	9,978	1,476	21,584	3,134	50,214
69	652	23,740	358	12,962	960	27,015	1,970	63,717
70	413	29,384	189	15,952	540	34,578	1,142	79,914
71	182	26,040	101	14,309	284	30,945	567	71,294
72	84	28,385	60	15,230	144	32,571	288	76,186
73	22	17,114	20	8,904	52	19,168	94	45,186
74	15	13,081	12	6,782	34	14,635	61	34,498
75	2	6,872	1	3,471	11	7,677	14	18,020
76	1	3,970	2	2,062	10	4,607	13	10,639
77	1	1,404	0	706	4	1,673	5	3,783
78+	2	862	3	510	5	1,207	10	2,579
Total	12,231	193,786	6,594	104,133	17,942	225,445	36,767	523,364

\*21 airmen missing height

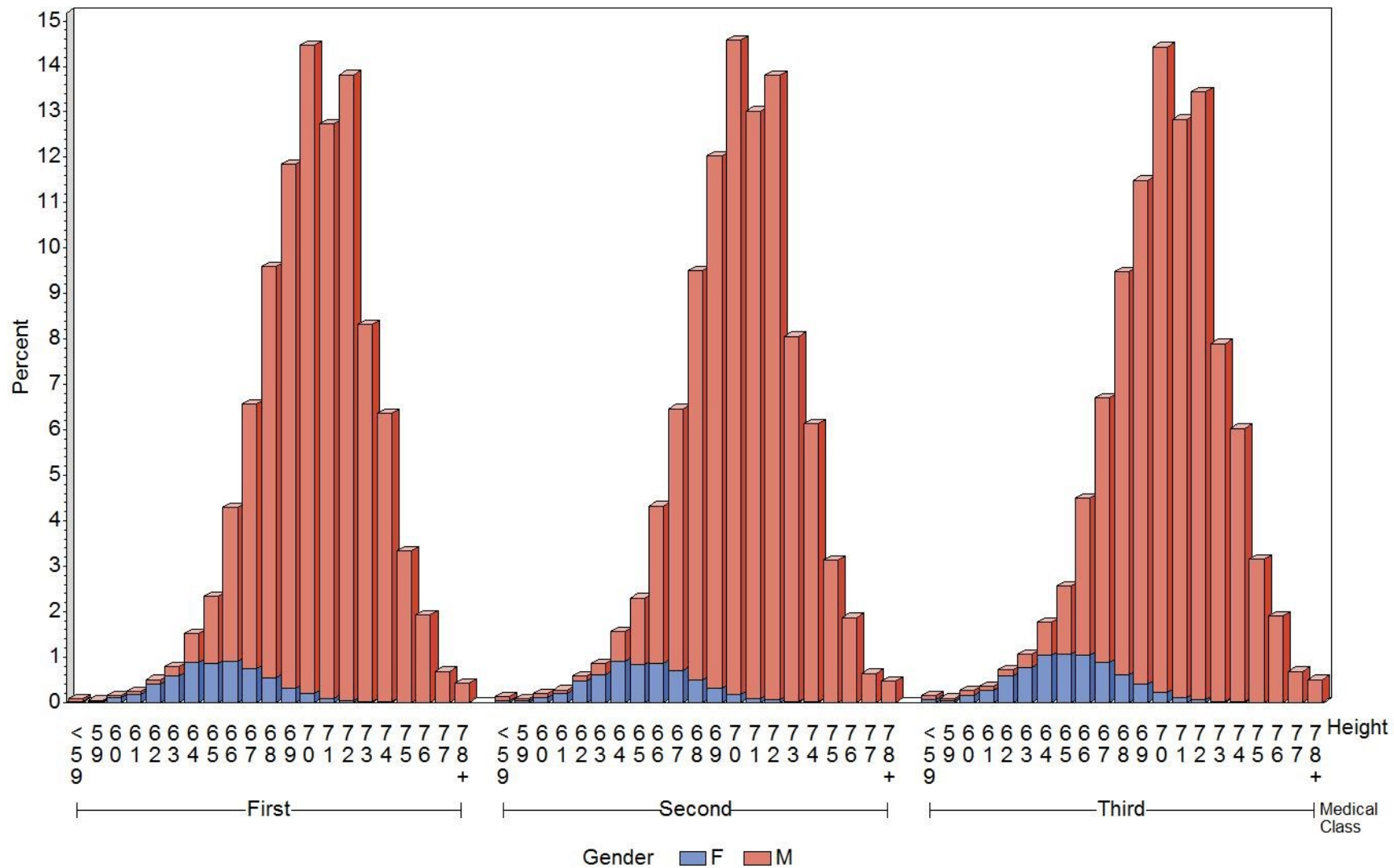


Figure 13. Height (Inches) by Gender and Issued Medical Class

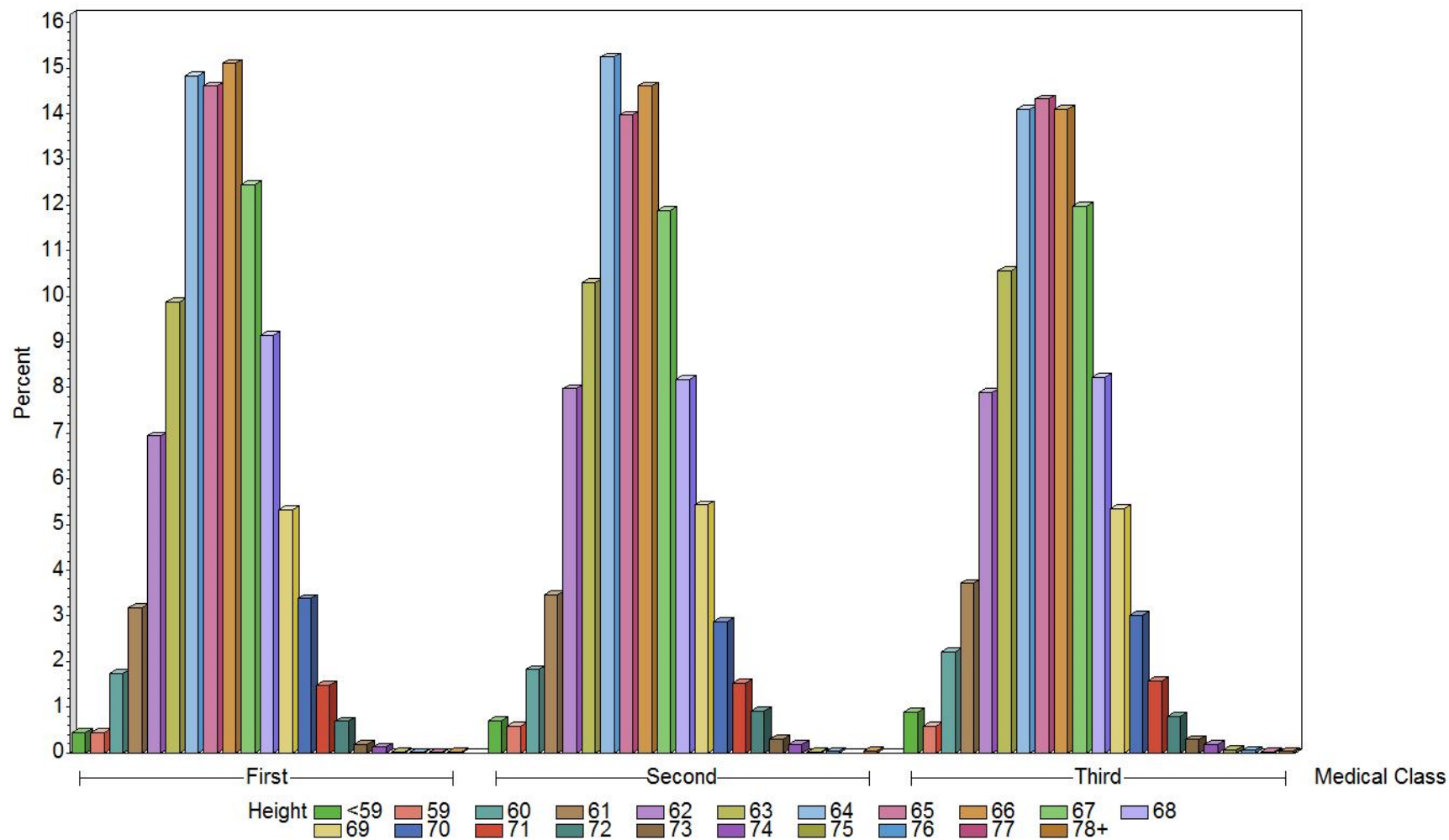


Figure 14. Height (Inches) by Issued Medical Class – Females only

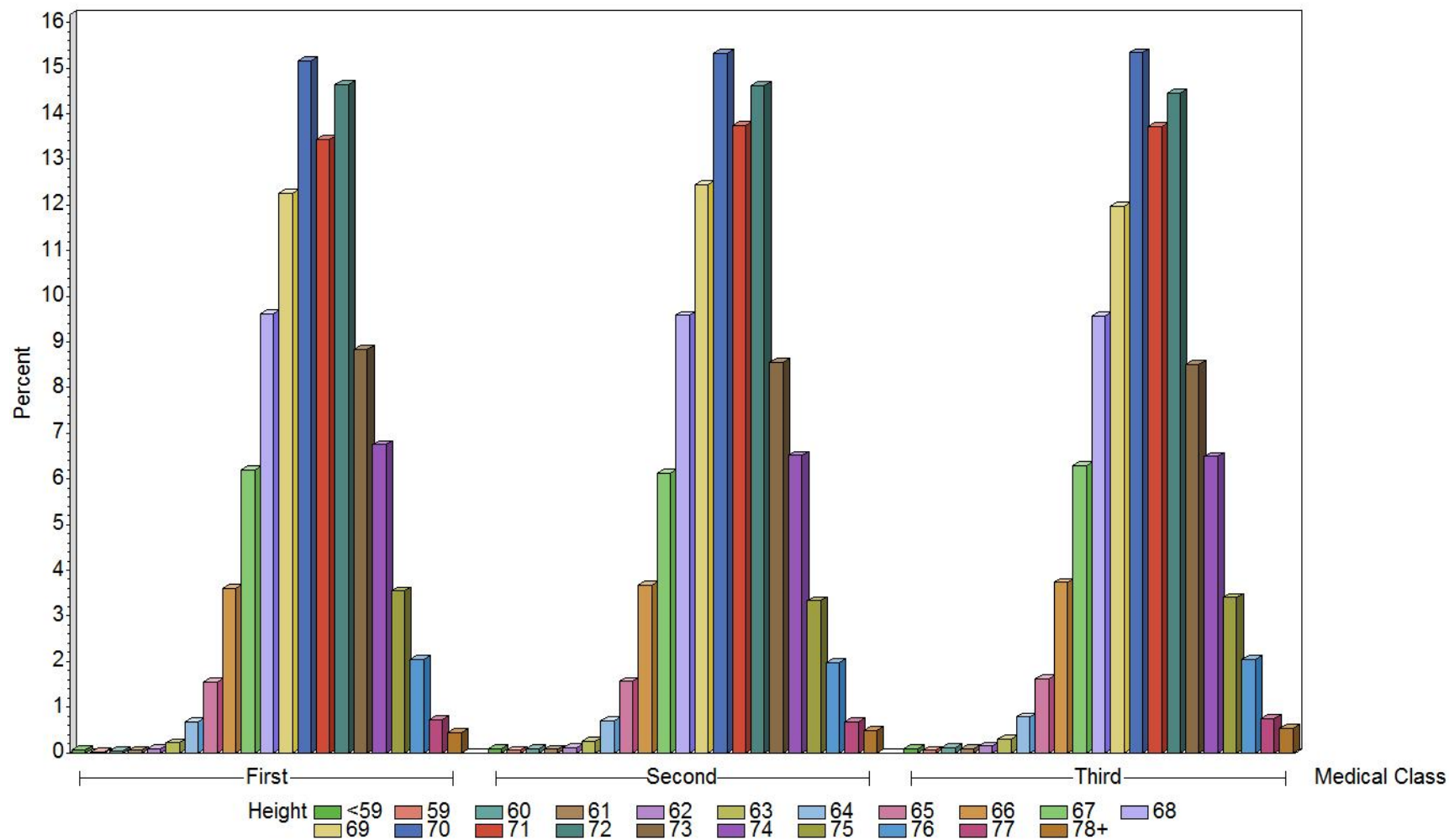


Figure 15. Height (Inches) by Issued Medical Class – Males only

Table 15. Weight (Pounds) of all Active Airmen by Gender and Issued Medical Class

Issued Medical Class*		Number of Airmen	Mean	Median	Standard Deviation
First	Females	12,229	145.4	140.0	29.1
	Males	193,783	190.6	187.0	33.6
Second	Females	6,594	148.6	142.0	31.6
	Males	104,126	195.2	192.0	34.7
Third	Females	17,943	146.0	140.0	29.2
	Males	225,433	193.3	190.0	34.8
All Classes	Females	36,766	146.3	140.0	29.6
	Males	523,342	192.7	190.0	34.4

\*44 missing weight

Table 16. Weight (Pounds) by Issued Medical Class and Gender

Weight*	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
<100	120	50	54	21	191	63	365	134
100-109	480	171	246	79	685	164	1,411	414
110-119	1,213	774	577	280	1,683	657	3,473	1,711
120-129	1,981	2,087	1,006	841	2,755	2,139	5,742	5,067
130-139	2,162	4,922	1,136	2,174	3,194	5,094	6,492	12,190
140-149	1,848	8,872	924	3,937	2,749	9,363	5,521	22,172
150-159	1,379	14,480	716	6,356	2,094	15,555	4,189	36,391
160-169	974	19,640	550	9,413	1,437	22,009	2,961	51,062
170-179	629	24,201	423	11,857	1,042	26,758	2,094	62,816
180-189	465	25,640	291	13,484	730	29,490	1,486	68,614
190-199	325	23,219	205	12,627	422	26,901	952	62,747
200-209	183	19,296	142	10,980	281	22,974	606	53,250
210-219	131	15,324	85	9,015	197	17,995	413	42,334
220-229	115	11,394	79	7,111	153	13,912	347	32,417
230-239	80	7,989	39	5,062	113	10,275	232	23,326
240-249	57	5,341	34	3,573	80	7,042	171	15,956
250-259	32	3,708	32	2,490	49	5,053	113	11,251
260-269	20	2,364	19	1,690	29	3,306	68	7,360
270-279	13	1,527	7	1,071	22	2,262	42	4,860
280+	22	2,784	29	2,065	37	4,421	88	9,270
Total	12,229	193,783	6,594	104,126	17,943	225,433	36,766	523,342

\*44 airmen missing weight

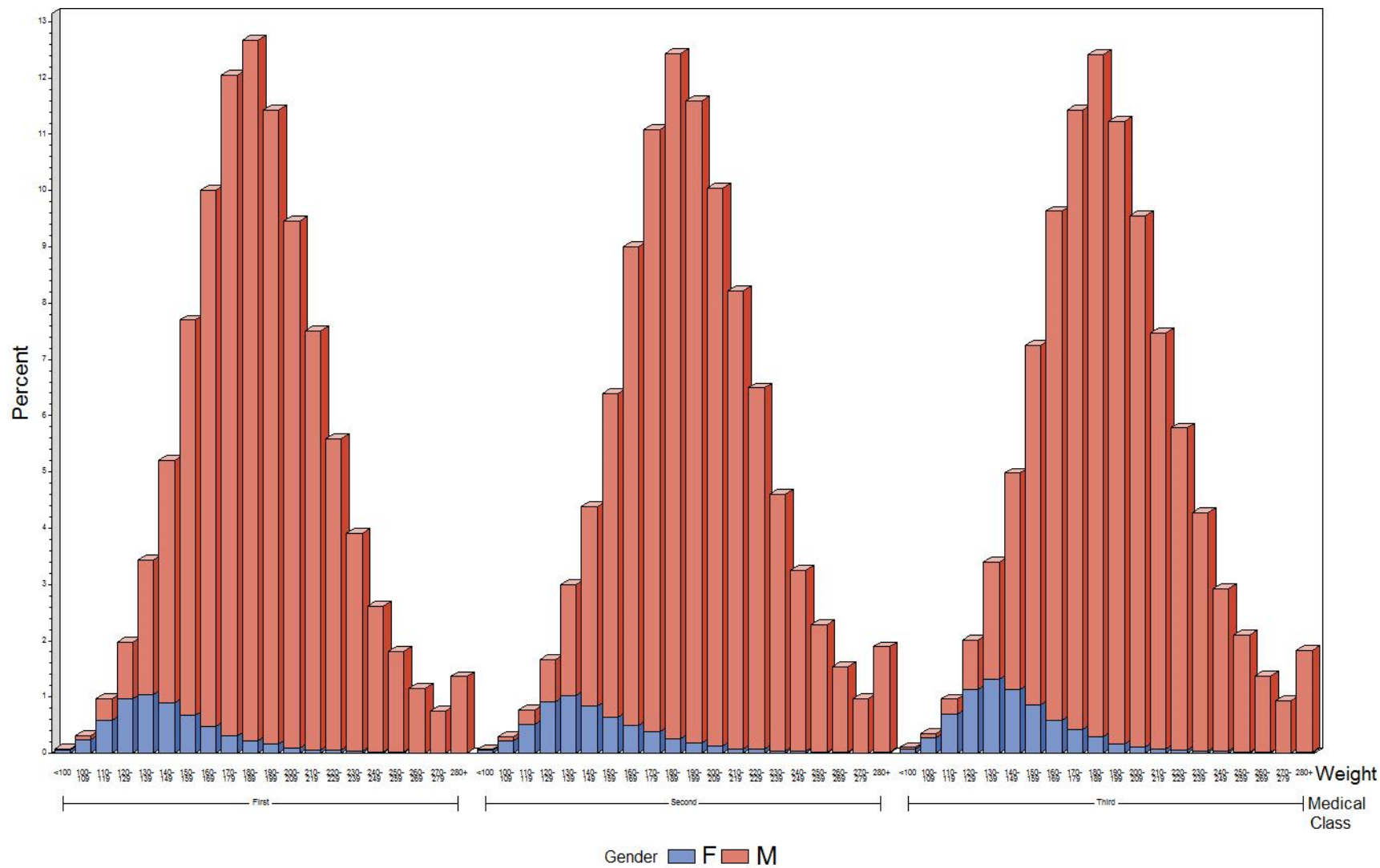


Figure 16. Weight (Pounds) by Gender and Issued Medical Class

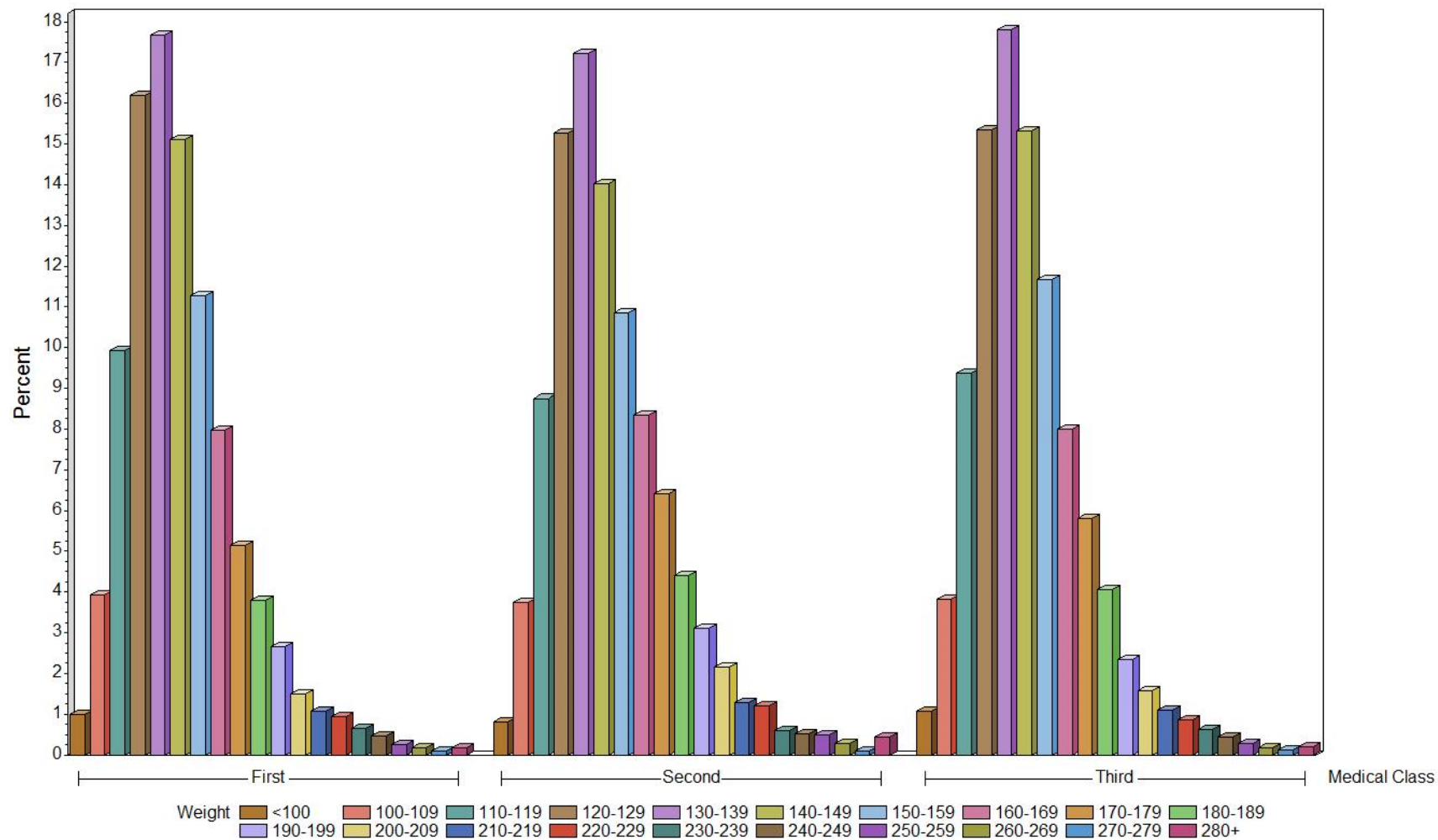


Figure 17. Weight (Pounds) by Issued Medical Class – Females only

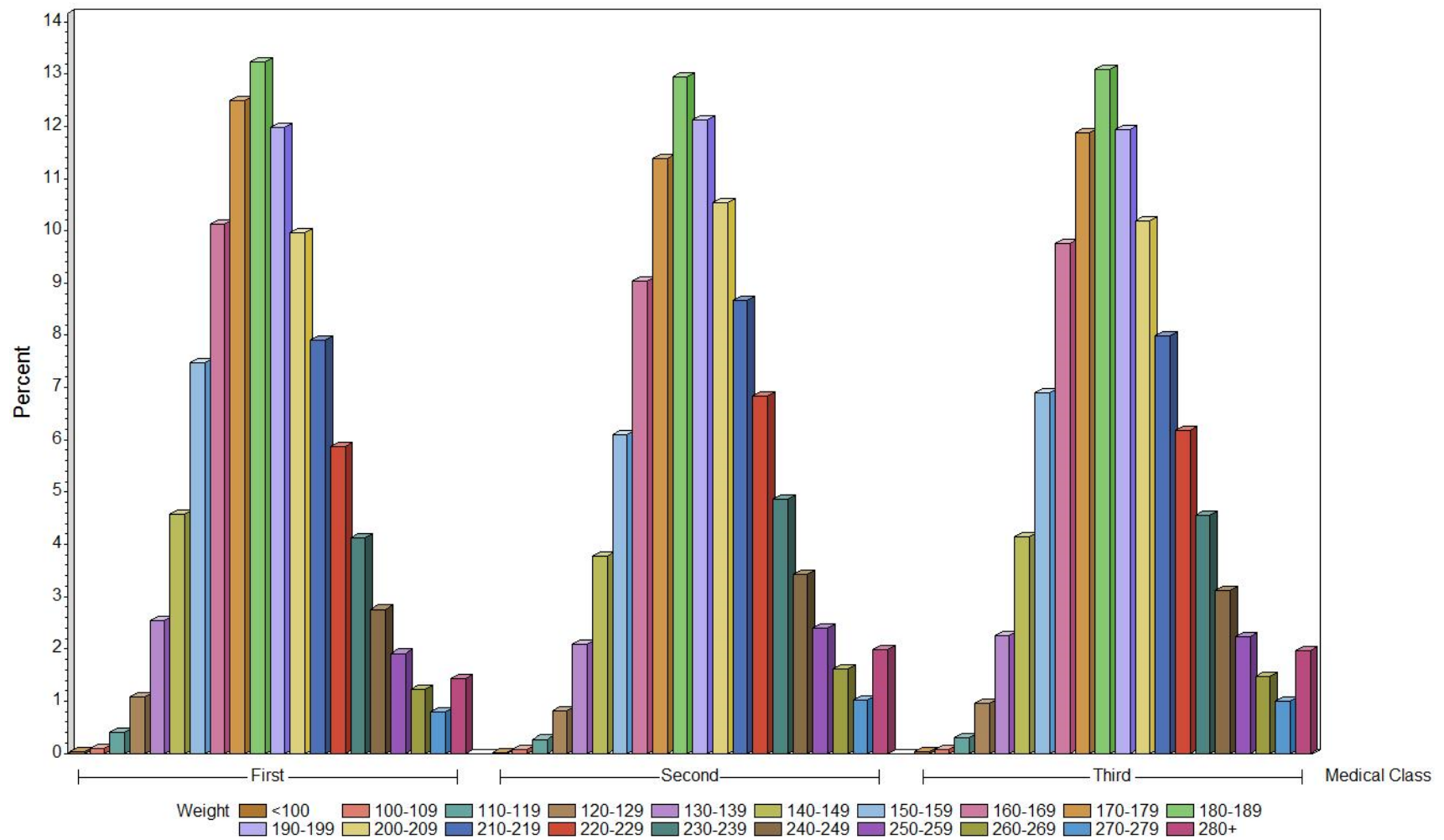


Figure 18. Weight (Pounds) by Issued Medical Class – Males only

Table 17. BMI of all Active Airmen by Gender and Issued Medical Class

Issued Medical Class*		Number of Airmen	Mean	Median	Standard Deviation
First	Females	12,228	23.9	22.9	4.4
	Males	193,778	26.9	26.5	4.2
Second	Females	6,594	24.5	23.4	4.9
	Males	104,125	27.6	27.1	4.5
Third	Females	17,940	24.1	23.2	4.6
	Males	225,423	27.3	26.8	4.5
All Classes	Females	36,762	24.1	23.2	4.6
	Males	523,326	27.2	26.7	4.4

\*64 airmen missing BMI

Table 18. BMI Category by Issued Medical Class and Gender

BMI*	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
Underweight	546	1,905	255	761	763	1,901	1,564	4,567
Normal	7,960	64,185	3,970	29,110	11,286	69,032	23,216	162,327
Overweight	2,615	88,917	1,535	47,561	4,094	101,185	8,244	237,663
Obese	1,107	38,771	834	26,693	1,797	53,305	3,738	118,769
Total	12,228	193,778	6,594	104,125	17,940	225,423	36,762	523,326

\*64 airmen missing BMI

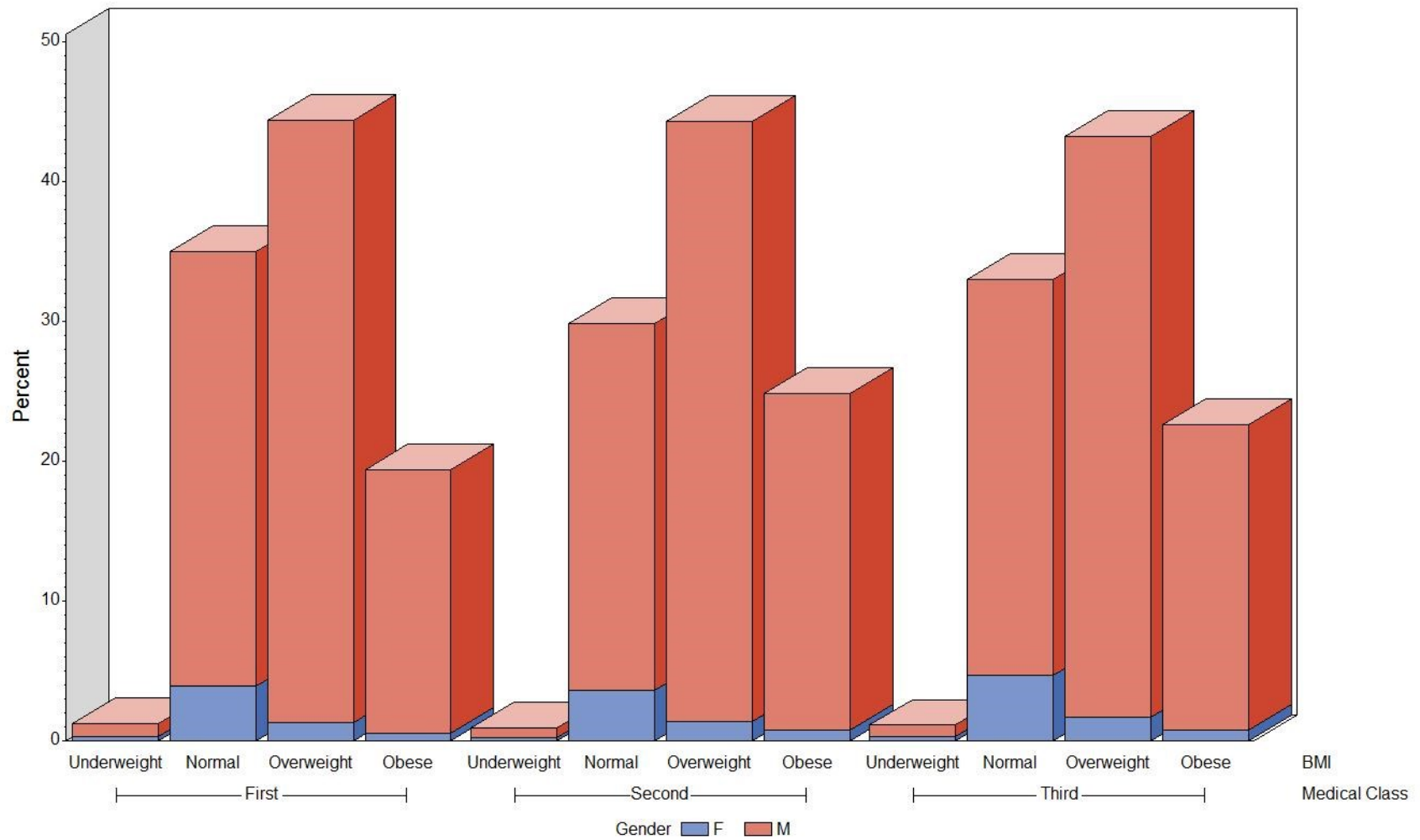


Figure 19. BMI by Gender and Issued Medical Class

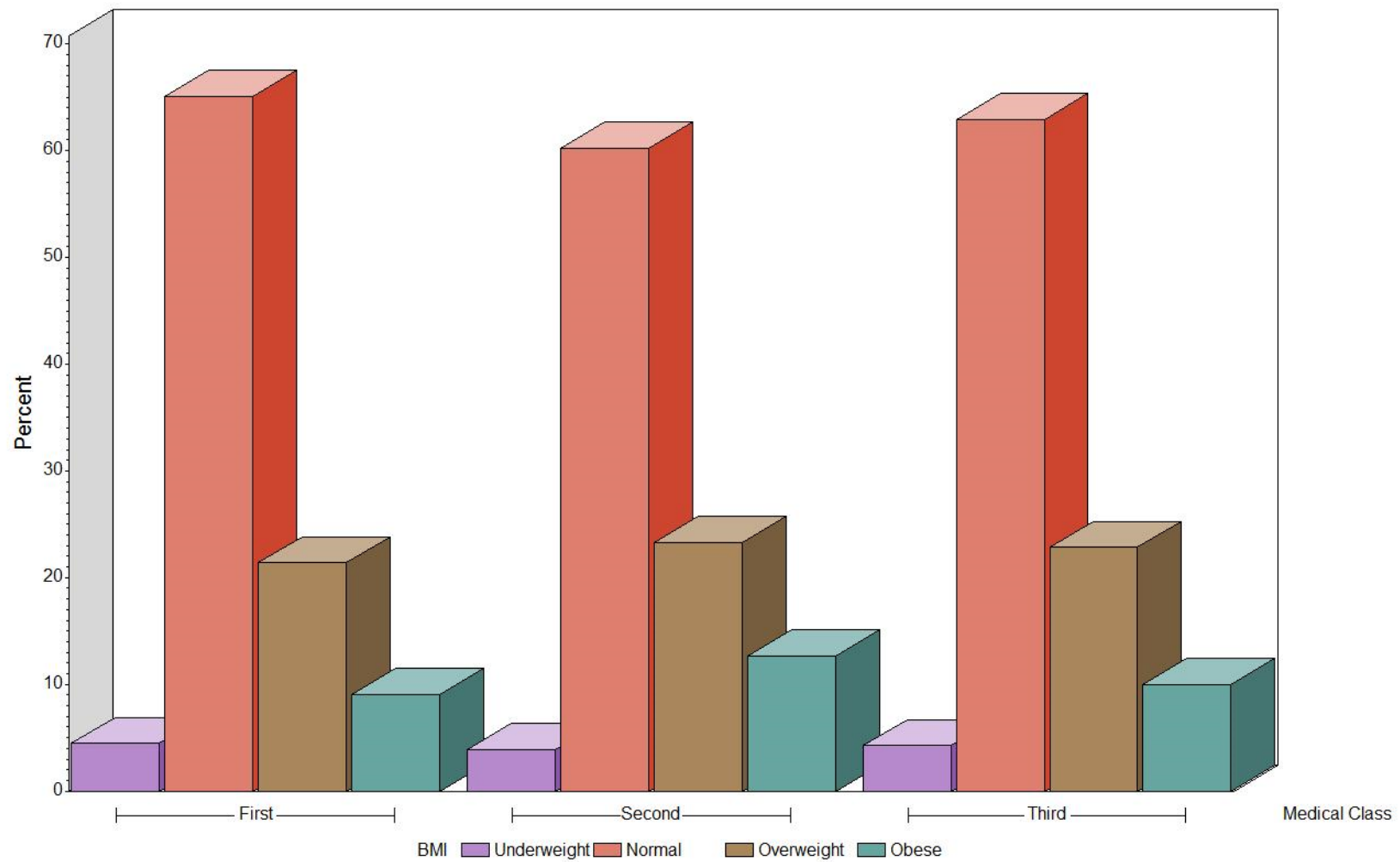


Figure 20. BMI by Issued Medical Class – Females only

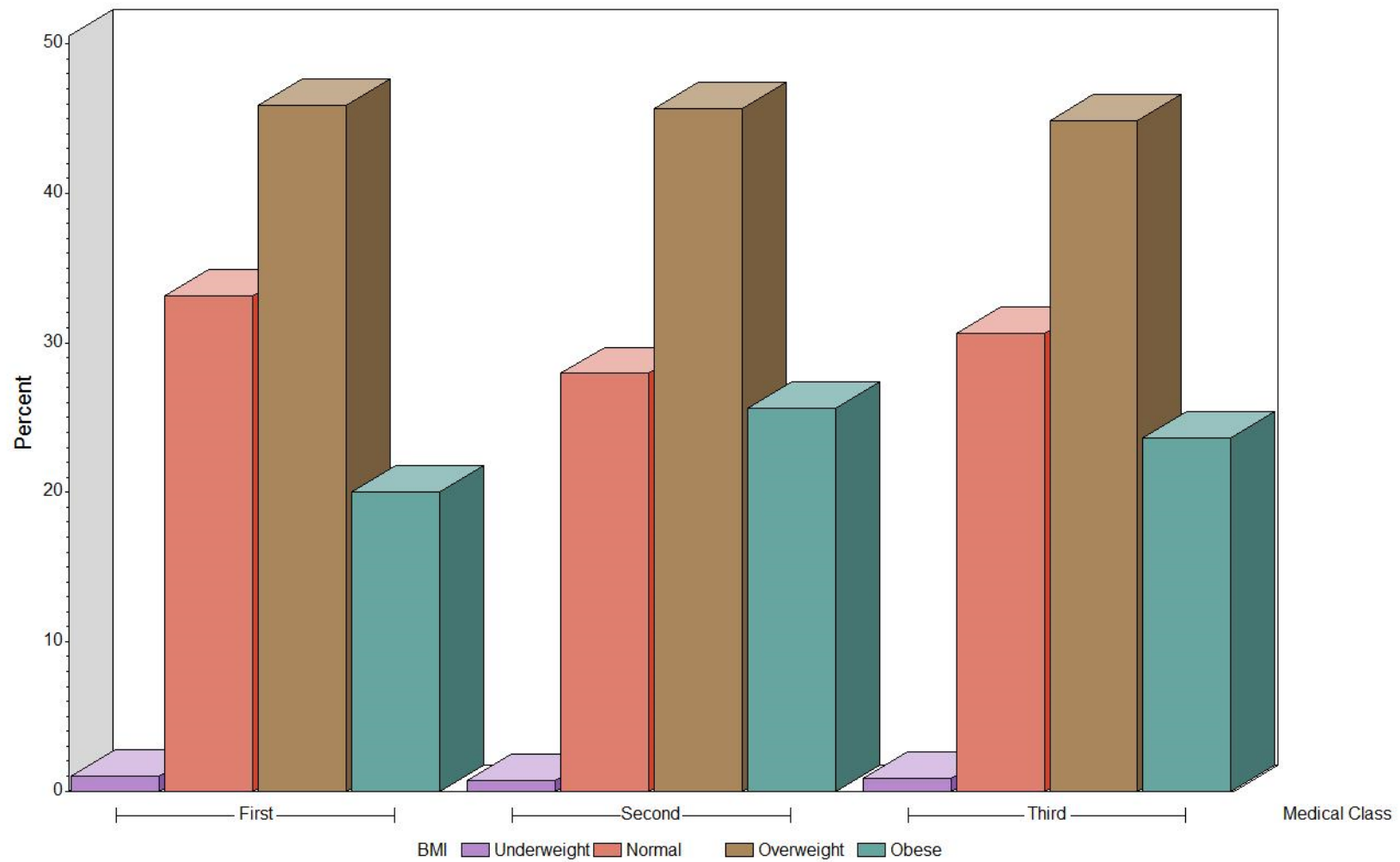


Figure 21. BMI by Issued Medical Class – Males only

Table 19. Special Issuance by Issued Medical Class, Gender, Age, and BMI

		Special Issuance	
		Yes (Percent)	No (Percent)
Class Issued	First	10,392 (5.04)	195,632 (94.96)
	Second	6,263 (5.66)	104,465 (94.34)
	Third	18,758 (7.71)	224,642 (92.29)
Gender	Female	1,009 (2.74)	35,762 (97.26)
	Male	34,404 (6.57)	488,977 (93.43)
Age at Exam	16-19	434 (1.09)	39,263 (98.91)
	20-24	566 (0.89)	63,112 (99.11)
	25-29	713 (1.27)	55,291 (98.73)
	30-34	1,023 (1.93)	52,026 (98.07)
	35-39	1,282 (2.57)	48,669 (97.43)
	40-44	1,538 (4.19)	35,153 (95.81)
	45-49	2,848 (5.84)	45,894 (94.16)
	50-54	4,359 (7.79)	51,622 (92.21)
	55-59	5,853 (10.42)	50,316 (89.58)
	60-64	6,118 (13.43)	39,442 (86.57)
	65+	10,679 (19.55)	43,951 (80.45)
BMI*	Underweight	6,563 (3.54)	178,980 (96.46)
	Normal	13,009 (10.62)	109,498 (89.38)
	Overweight	15,722 (6.39)	230,185 (93.61)
	Obese	115 (1.88)	6,016 (98.12)
Total		35,413 (6.32)	524,739 (93.68)

\*64 airmen missing BMI

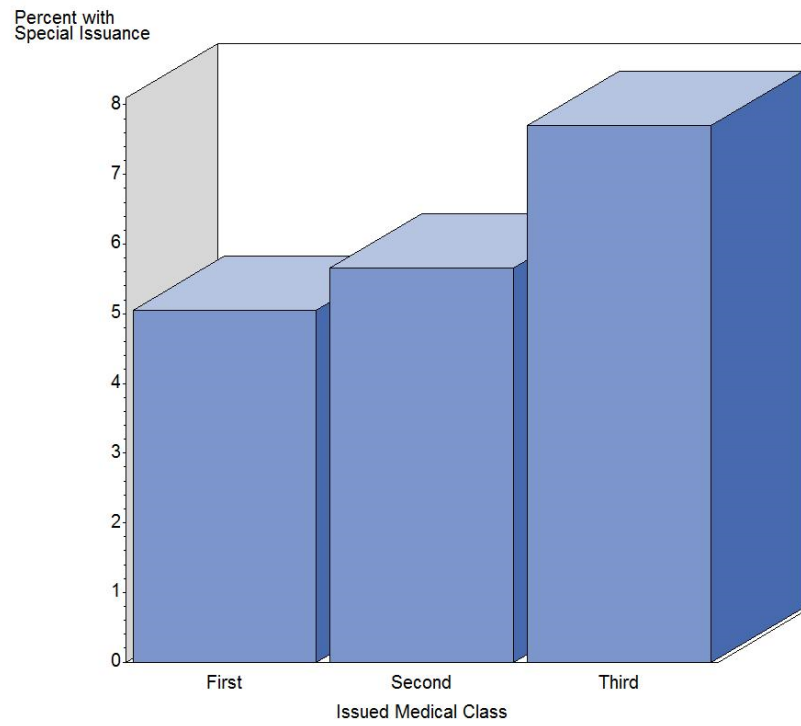


Figure 22. Special Issuance by Issued Medical Class

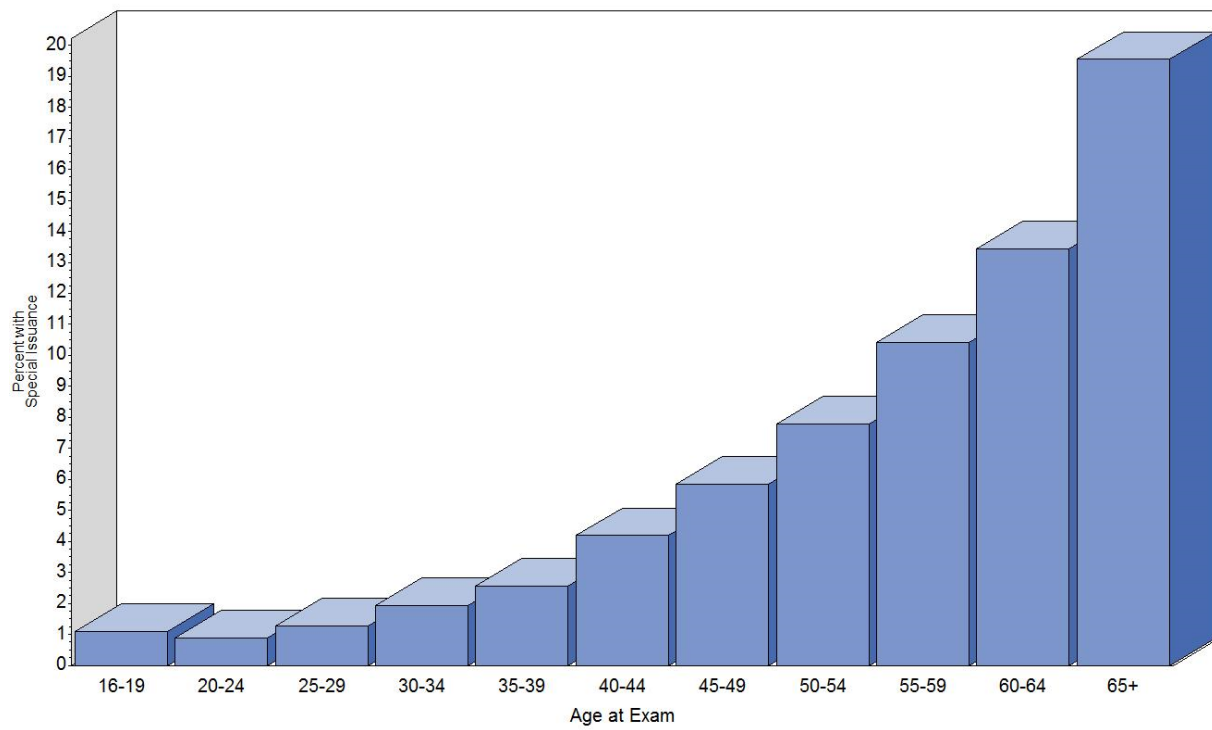


Figure 23. Special Issuance by Age Group at Time of Exam

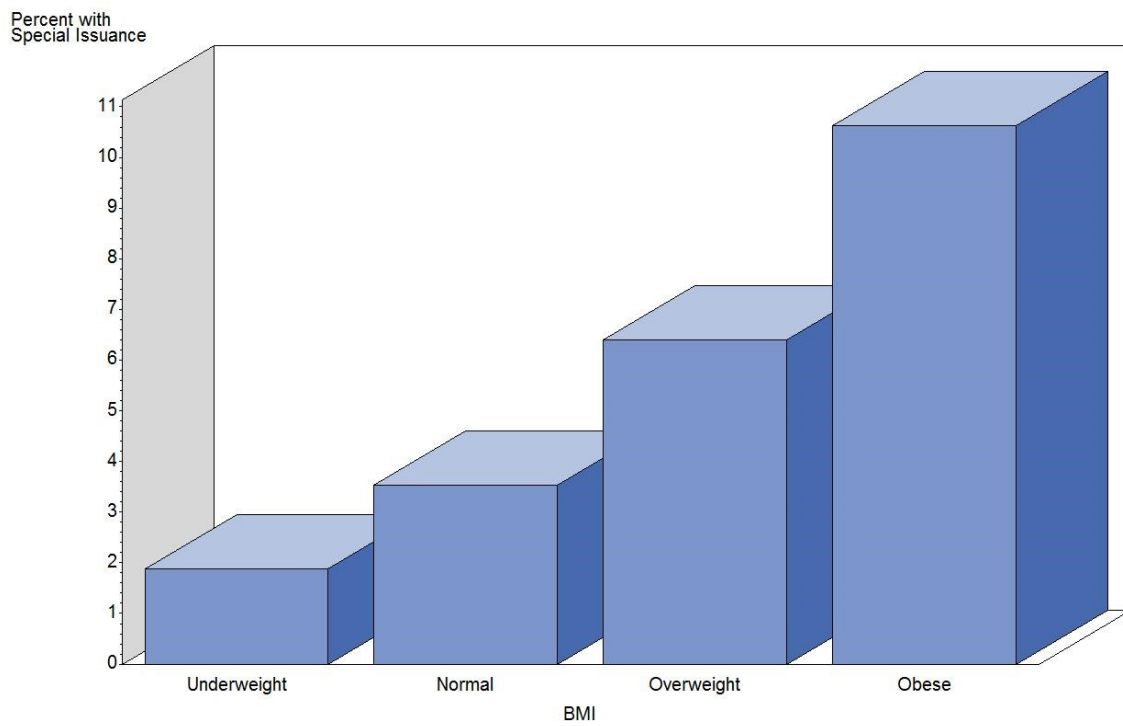


Figure 24. Special Issuance by BMI Category

Table 20. Top 15 Reported Medical Conditions

Pathology Description	Number	Percent
Hypertension with medication	58,364	10.42
Other miscellaneous allergic conditions*	34,709	6.20
Hernias – inguinal, femoral, umbilical, hiatal	26,213	4.68
Urolithiasis – stones or calculus of kidney, ureter, bladder	21,457	3.83
Other esophagus, stomach, and duodenal conditions – severe gastritis, esophageal reflux, achalasia, GERD, gastroplasty, dysphagia, dyspepsia, thrombus abdomen aorta <sup>#</sup>	21,104	3.77
Male genital system – prostatic, varicocele, hydrocele, transurethral resection of prostate (TURP), spermatocele, benign prostatic hypertrophy (BPH)	19,207	3.43
Other lower extremities conditions – operations, fractures, dislocation, knee replacement, knee reconstruction, ACL reconstruction <sup>§</sup>	16,250	2.90
Other skin conditions – includes acne, abnormal pigmentation, vitiligo, psoriasis, keratosis, neurofibroma, (basal cell carcinoma), adenoma, ganglio neuroma, fibroma, fibroadenoma, neuroma, Morton's neuroma, hemangioma <sup>‡</sup>	15,323	2.74
Ruptured intervertebral disk, nucleus pulposus, spinal fusion, laminectomy and spinal stenosis, compression disc, other back surgeries	13,373	2.39
Hayfever	12,783	2.28
Asthma	11,408	2.04
Other general heart pathology (abnormal ECG, open heart surgery, etc.). Wolff-Parkinson-White syndrome, ablation, AV block, right bundle branch block, left bundle branch block <sup>†</sup>	10,983	1.96
Hypothyroidism, underactive thyroid, euthyroid, hashimoto	10,737	1.92
Other shoulder conditions--operations, trauma, recurrent dislocations, frozen shoulder, rotator cuff surgery, etc.	9,872	1.76
Sleep apnea, restless leg syndrome	9,839	1.76

\* Excludes hayfever and asthma

<sup>#</sup> Excludes ulcers, gastrectomy, lapband staple bypass, gastric bypass, hernias, esophageal varices<sup>‡</sup> Excludes dermatitis, pilonidal cyst, significant scarring, melanoma, squamous cell carcinoma<sup>§</sup> Excludes deformity of toes, foot, or leg, diseases (synovitis, arthritis, bursitis, osteomyelitis, neoplasms, polymyaglia rheumatica, etc.), rheumatoid arthritis, unstable knee (locked knee, herniated meniscus, no patella)<sup>†</sup> Excludes cardiomyopathy, pacemaker, cardiac stents, cardiac angioplasty

Table 21. Medical Conditions by Issued Medical Class

		Issued Medical Class			Total
		First	Second	Third	
Vision	Color vision deficiency*	1,624 (0.79)	1,445 (1.30)	5,493 (2.25)	8,562 (1.53)
	Monocular vision	276 (0.13)	327 (0.30)	1,042 (0.43)	1,645 (0.29)
Transplants	Lung transplant	1 (0.00)	0 (0.00)	2 (0.00)	3 (0.00)
	Heart transplant	1 (0.00)	0 (0.00)	4 (0.00)	5 (0.00)
	Liver transplant	7 (0.00)	8 (0.01)	23 (0.01)	38 (0.01)
	Kidney transplant	45 (0.02)	19 (0.02)	93 (0.04)	157 (0.03)
Cardiac	Myocardial infarction	650 (0.32)	344 (0.31)	1,798 (0.74)	2,792 (0.50)
	Coronary angioplasty with a stent	939 (0.46)	486 (0.44)	2,829 (1.16)	4,254 (0.76)
	Coronary angioplasty procedure	222 (0.11)	131 (0.12)	770 (0.32)	1,123 (0.20)
	Coronary artery bypass surgery	374 (0.18)	193 (0.17)	1,326 (0.54)	1,893 (0.34)
	Implanted pacemaker	101 (0.05)	78 (0.07)	361 (0.15)	540 (0.10)
	Aortic valve conditions*	657 (0.32)	382 (0.34)	1,225 (0.50)	2,264 (0.40)
	Mitral valve conditions#	835 (0.41)	422 (0.38)	1,433 (0.59)	2,690 (0.48)
	Hypertension with medication	15,525 (7.54)	11,496 (10.38)	31,343 (12.88)	58,364 (10.42)

Table 21 (Continued). Medical Conditions by Issued Medical Class

		Medical Class Issued			Total
		First	Second	Third	
Alcohol and Drugs	Alcohol abuse/dependence	2,432 (1.18)	977 (0.88)	1,614 (0.66)	5,023 (0.90)
	Drug abuse/dependence	963 (0.47)	497 (0.45)	734 (0.30)	2,194 (0.39)
	Alcohol/Drug case monitored	1,394 (0.68)	88 (0.08)	16 (0.01)	1,498 (0.27)
	Alcohol-related offense <sup>‡</sup>	11,044 (5.36)	6,565 (5.93)	12,061 (4.96)	29,670 (5.30)
	Drug-related offense/misuse <sup>§</sup>	758 (0.37)	579 (0.52)	974 (0.40)	2,311 (0.41)
Other conditions of interest	Sleep apnea	3,154 (1.53)	2,140 (1.93)	4,720 (1.94)	10,014 (1.79)
	Applied for SSRI use	233 (0.11)	117 (0.11)	488 (0.20)	838 (0.15)
	SSRI special issuance	119 (0.06)	31 (0.03)	115 (0.05)	265 (0.05)
	Diabetes <sup>†</sup>	1,483 (0.72)	1,433 (1.29)	4,659 (1.91)	7,575 (1.35)

\* Color vision deficiency at initial screening test

\* Includes aortic valvular disease, aortic stenosis, aortic regurgitation, aortic insufficiency, bicuspid aortic valve, also replacement, ruptured aorta or lacerated, aortic bruit

# Includes mitral valve disease, mitral stenosis, mitral regurgitation, mitral insufficiency. Does not include valve replacement.

‡ Includes DUI, DWI, public intox, wet/reckless, .04-.09 blood alcohol

§ Includes drug offenses and positive drug test other than Drug Industry Program (Failed Drug Testing)

† Controlled by hypoglycemic drugs or insulin