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2024 Aerospace Medical Certification Statistical Handbook

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Final Report



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2024 Aerospace Medical Certification Statistical Handbook

Introduction

The biennial Aerospace Medical Certification Statistical Handbook provides descriptive characteristics of all active U.S. civil aviation airmen. The 2024 edition presents the most recent and broadly relevant data regarding this population.

Methods

Medical certification records from 2019–2024 were selected from the Document Imaging Workflow System, which is the Federal Aviation Administration's (FAA's) medical certification database. All data used in this handbook reflect each airman's most recent medical examination, with the exception of the data for medical conditions, which were comprehensively compiled from both recent and historical medical certificates. Only airmen with a non-expired medical certificate were included.

Airman variables analyzed include age, issued and effective medical classes, height, weight, body mass index (BMI), gender, select medical conditions, special issuances (SIs), and FAA region of residence.

Results

As of December 31, 2024, 639,044 medically certified airmen were age 16 and older, and 56.8%, 13.7%, and 29.5% were issued a first-, second-, and third-class medical certificate, respectively. Across all medical classes, the average age was 38.2 years, 89.4% were male, and 10.6% were female. The mean BMI for female and male airmen was 24.4 kg/m² and 27.0 kg/m², respectively. Nearly 6.2% of issued certificates required an SI. The most-reported medical condition was hypertension treated with medication, reported among 5.7% of the population.

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. Airman Medical Certification

The Aerospace Medical Certification Division is the central screening facility and repository within the FAA to collect, investigate, adjudicate, and analyze airman medical data.

Activities of the Aerospace Medical Certification Division are presented in this section. With the exception of Table 1, which includes the total number of all medical applications that were processed by year, 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, 2024. Minor annual fluctuations in the data may occur as a result of systematic updates 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 age 40 at the time of the medical examination, first- and second-class certificates are valid for one year, and third-class certificates are valid for five years. If the airman is 40 or older on the date of the examination, first-class certificates are valid for six months, second-class for one year, and third-class for two years. The length of certificate validity varies for those requiring an SI.

Effective medical class is determined by the class issued, the airman's age, time since the examination, and whether the airman had a time-limited certificate. A certificate can be issued as a higher class (e.g., 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 derived from each airman's most recent medical examination, except for medical conditions. Medical conditions are determined by whether the airman has reported the condition on any past or current medical examination. BMI classifications are as follows: *Underweight* ($<18.5 \text{ kg/m}^2$), *Normal* ($18.5 \text{ to } 24.9 \text{ kg/m}^2$), *Overweight* ($25 \text{ to } 29.9 \text{ kg/m}^2$), and *Obese* ($\geq 30 \text{ kg/m}^2$).

Table 1. 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 ^a	425,275	-6.0
2009	397,180	-6.6
2010	394,727	-0.6
2011	400,137	1.4
2012	396,377	-0.9
2013	394,532	-0.5
2014	391,749	-0.7
2015	393,523	0.5
2016	398,398	1.2
2017	390,263	-2.0
2018	401,169	2.8
2019	410,118	2.2
2020	369,962	-9.8
2021	408,679	10.5
2022	434,674	6.4
2023	462,986	6.5
2024	468,508	1.2

Note. N/A = not applicable.

^a Policy change July 24, 2008 lengthened the time of certificate validity for those under age 40.

Table 2. 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	3,664	2,408	158	1,098	1,723	1,194	529	2,522	2,522	7,909	1.2	2,408	1,352	4,149
Central	10,984	6,359	437	4,188	4,434	2,764	1,670	9,047	9,047	24,465	3.8	6,359	3,201	14,905
Eastern	35,412	22,054	1,353	12,005	8,600	5,012	3,588	21,960	21,960	65,972	10.3	22,054	6,365	37,553
Great Lakes	47,258	29,511	1,573	16,174	10,415	6,263	4,152	24,636	24,636	82,309	12.9	29,511	7,836	44,962
New England	9,592	6,252	376	2,964	2,385	1,448	937	7,753	7,753	19,730	3.1	6,252	1,824	11,654
Northwest-Mountain	44,144	27,682	1,701	14,761	11,916	7,178	4,738	20,559	20,559	76,619	12.0	27,682	8,879	40,058
Southern	96,503	59,997	4,132	32,374	19,475	12,544	6,931	39,827	39,827	155,805	24.4	59,997	16,676	79,132
Southwest	44,560	28,391	2,100	14,069	12,492	8,042	4,450	24,784	24,784	81,836	12.8	28,391	10,142	43,303
Western-Pacific	50,945	29,788	2,004	19,153	12,536	7,814	4,722	31,222	31,222	94,703	14.8	29,788	9,818	55,097
US Total	343,062	212,442	13,834	116,786	83,976	52,259	31,717	182,310	182,310	609,348	95.4	212,442	66,093	330,813
International	20,099	9,013	1,613	9,473	3,640	1,868	1,772	5,954	5,954	29,693	4.6	9,013	3,481	17,199
Total	363,161	221,455	15,447	126,259	87,616	54,127	33,489	188,264	188,264	639,041	100.0	221,455	69,574	348,012
Percent of Total Certified Airmen	56.8				13.7			29.5		100.0		34.7	10.9	54.5

*3 airmen with unknown region

Table 3. Issued Medical Class by State of Residence and Gender

State of Residence *	Issued Medial Class						Total Airmen^	
	First		Second		Third			
	Female	Male	Female	Male	Female	Male	Female	Male
Alabama	355	2,845	88	1,928	292	2,582	735	7,355
Alaska	503	3,161	188	1,535	371	2,151	1,062	6,847
Arizona	1,930	12,769	180	2,530	713	5,809	2,823	21,108
Arkansas	202	1,868	42	1,114	217	1,924	461	4,906
California	3,415	23,909	663	7,098	2,455	19,271	6,533	50,278
Colorado	1,736	11,954	251	2,325	562	4,338	2,549	18,617
Connecticut	221	2,041	34	435	165	1,574	420	4,050
Delaware	99	740	11	173	33	298	143	1,211
District of Columbia	37	281	11	67	52	271	100	619
Florida	5,436	42,774	541	6,779	1,611	13,343	7,588	62,896
Georgia	1,530	12,283	186	2,365	554	4,845	2,270	19,493
Hawaii	616	2,627	69	502	94	421	779	3,550
Idaho	288	2,587	161	1,567	206	1,901	655	6,055
Illinois	1,140	8,496	185	1,732	419	3,879	1,744	14,107
Indiana	720	5,759	58	1,070	324	3,026	1,102	9,855
Iowa	187	1,577	78	978	172	1,825	437	4,380
Kansas	260	2,514	64	1,104	250	2,323	574	5,941
Kentucky	371	3,730	54	770	211	1,831	636	6,331
Louisiana	185	1,897	57	1,077	207	1,831	449	4,805
Maine	84	813	33	380	79	723	196	1,916
Maryland	349	3,041	126	1,143	354	2,487	829	6,671
Massachusetts	398	3,108	62	701	360	2,838	820	6,647
Michigan	954	7,073	102	1,285	330	3,801	1,386	12,159
Minnesota	1,046	7,358	137	1,460	315	2,926	1,498	11,744
Mississippi	165	1,662	40	805	162	1,342	367	3,809
Missouri	548	4,237	97	1,433	276	2,862	921	8,532
Montana	217	1,602	77	829	157	1,322	451	3,753
Nebraska	182	1,479	26	654	116	1,223	324	3,356
Nevada	614	4,714	124	1,278	267	2,002	1,005	7,994
New Hampshire	174	1,784	39	443	110	981	323	3,208
New Jersey	588	4,790	87	885	333	2,780	1,008	8,455
New Mexico	104	843	56	675	152	1,143	312	2,661
New York	954	7,649	140	1,599	573	4,858	1,667	14,106
North Carolina	1,144	8,916	131	2,054	530	4,775	1,805	15,745
North Dakota	169	1,100	49	629	119	863	337	2,592
Ohio	884	7,401	116	1,665	464	4,262	1,464	13,328
Oklahoma	373	3,267	121	1,443	310	2,517	804	7,227
Oregon	624	3,599	199	1,792	305	2,506	1,128	7,897
Pennsylvania	849	7,280	163	1,880	465	4,068	1,477	13,228
Rhode Island	49	459	8	111	43	312	100	882
South Carolina	536	4,398	62	1,050	323	2,753	921	8,201
South Dakota	120	841	57	590	63	607	240	2,038
Tennessee	859	7,953	170	2,121	479	3,804	1,508	13,878
Texas	3,794	32,027	571	7,335	1,643	14,840	6,008	54,202
Utah	911	8,362	135	1,491	170	1,821	1,216	11,674
Vermont	64	397	17	122	75	493	156	1,012
Virginia	851	6,955	160	1,843	545	4,219	1,556	13,017
Washington	1,493	10,179	245	2,404	774	5,597	2,512	18,180
West Virginia	93	739	17	238	49	486	159	1,463
Wisconsin	456	3,741	123	1,157	348	2,890	927	7,788
Wyoming	66	526	33	407	87	812	186	1,745
US Territories	278	1,701	33	445	84	575	395	2,721
International	1,612	18,487	234	3,406	604	5,350	2,450	27,243
Total	40,833	322,293	6,711	80,902	19,972	168,281	67,516	571,476

*50 airmen missing state

^2 airman missing gender

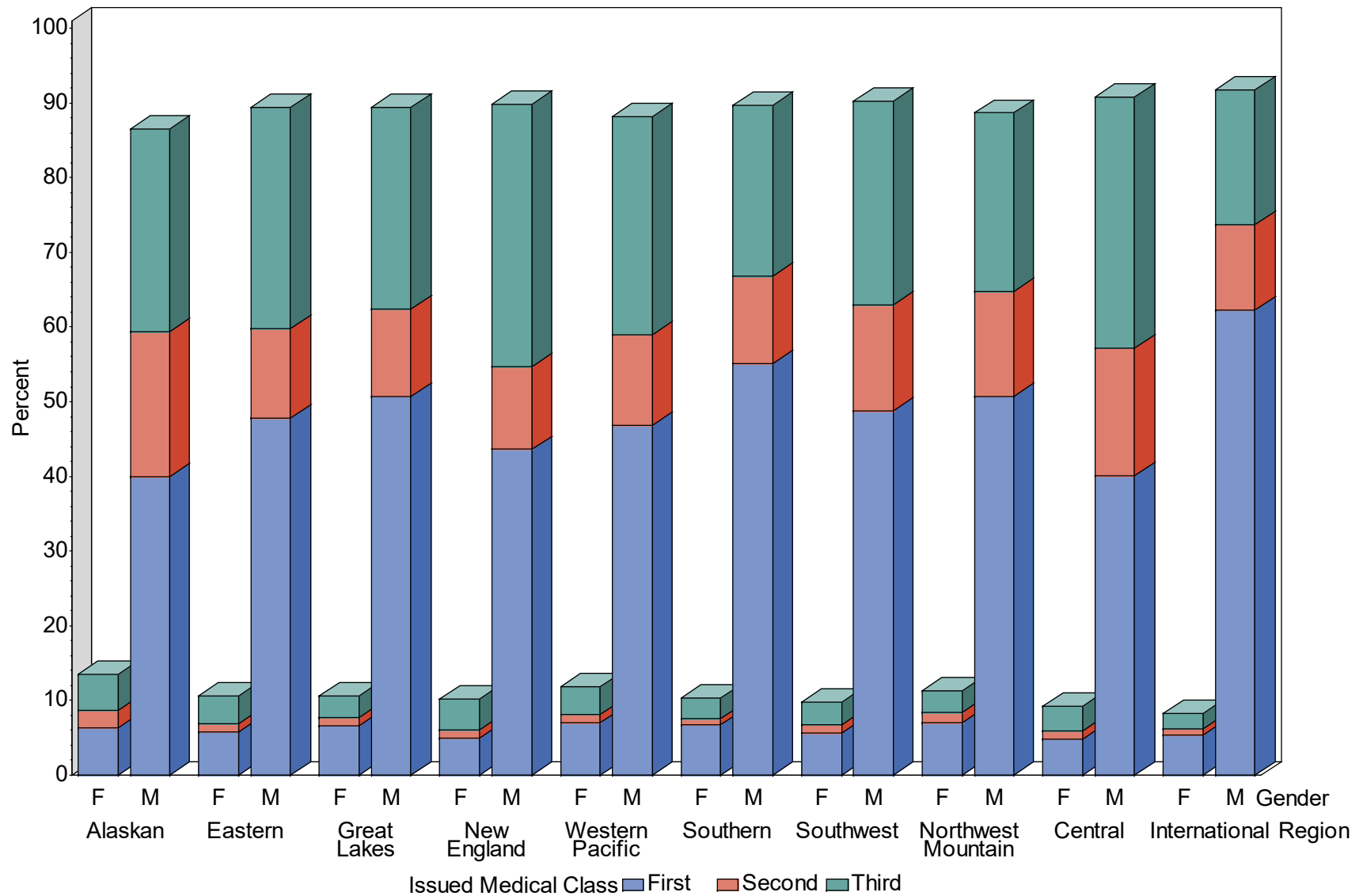


Figure 1. Issued Medical Class by Region and Gender

Table 4. Age (in Years) as of 12/31/2024 of All Active Airmen by Effective Medical Class

Effective Medical Class	Number of Airmen	Mean Age	Median Age	Standard Deviation
First	221,455	39.3	37.5	14.6
Second	69,575	50.4	50.4	13.9
Third	348,014	37.5	33.3	15.9
All Classes	639,044	39.5	36.7	15.7

Table 5. Age Groups of All Active Airmen by Effective Medical Class

Age Group in Years as of 12/31/2024	Effective Medical Class Number (Percent)		
	First	Second	Third
16-19	19,533 (8.82)	1,346 (1.93)	24,184 (6.95)
20-24	26,812 (12.11)	2,337 (3.36)	67,826 (19.49)
25-29	28,038 (12.66)	2,717 (3.91)	53,326 (15.32)
30-34	24,657 (11.13)	3,168 (4.55)	42,481 (12.21)
35-39	22,943 (10.36)	4,757 (6.84)	38,479 (11.06)
40-44	19,204 (8.67)	10,012 (14.39)	29,406 (8.45)
45-49	17,418 (7.87)	9,681 (13.91)	15,832 (4.55)
50-54	18,931 (8.55)	8,845 (12.71)	15,669 (4.50)
55-59	20,161 (9.10)	8,174 (11.75)	15,372 (4.42)
60-64	18,026 (8.14)	7,176 (10.31)	15,525 (4.46)
65+	5,732 (2.59)	11,362 (16.33)	29,914 (8.60)
Total	221,455	69,575	348,014

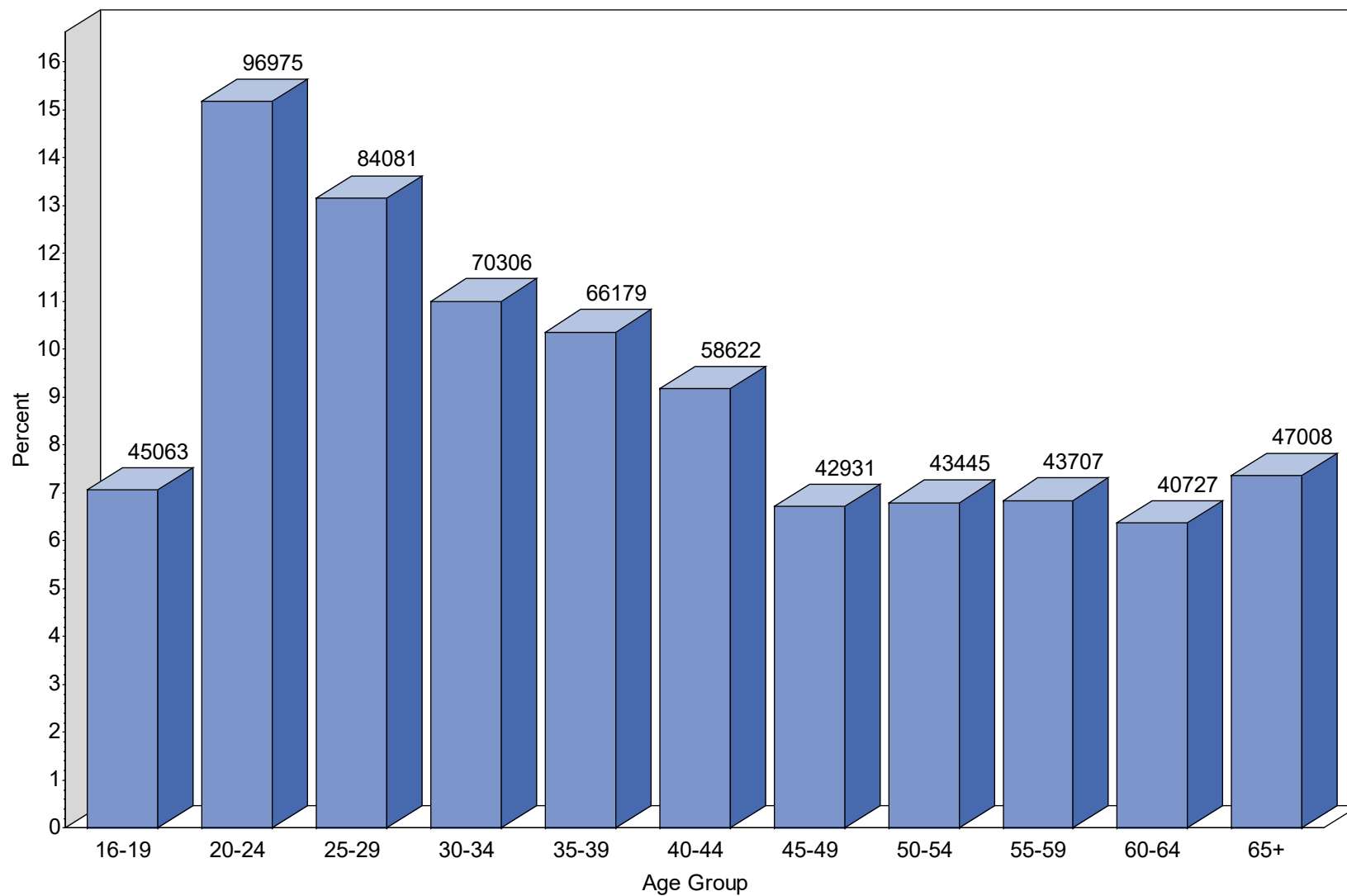


Figure 2. Age Group Distribution as of 12/31/2024 of All Active Airmen

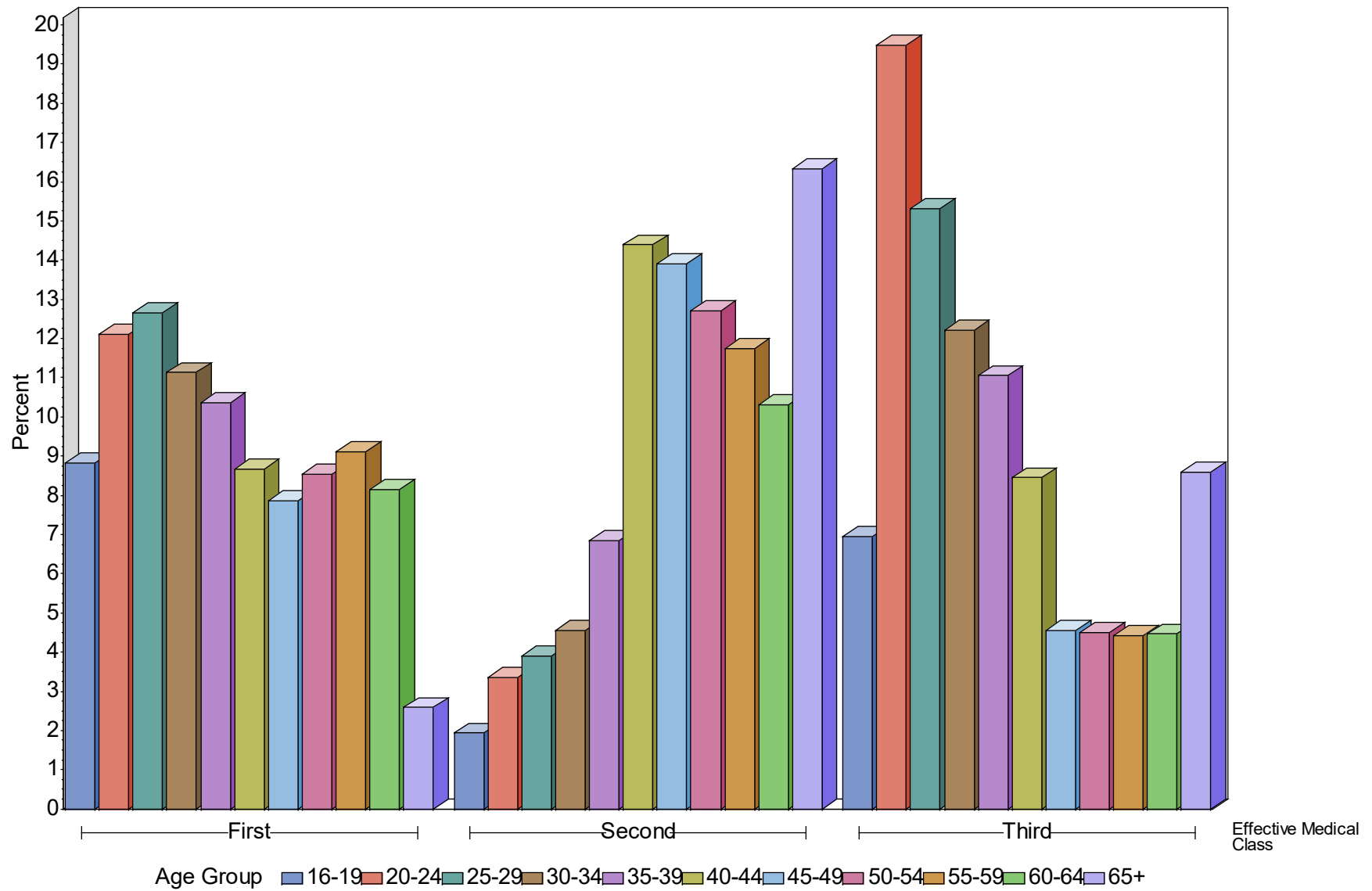


Figure 3. Age Group Distribution as of 12/31/2024 by Effective Medical Class for All Active Airmen

Table 6. Age at Exam Summary Statistics for Active Airmen by Issued Medical Class

Issued Medical Class	Number of Airmen	Mean Age	Median Age	Standard Deviation
First	363,161	35.3	31.6	14.7
Second	87,617	44.7	43.9	16.3
Third	188,266	40.7	37.4	17.5
All Classes	639,044	38.2	35.0	16.2

Table 7. Age Groups for All Active Airmen by Issued Medical Class

Age Group in Years at Time of Exam	Issued Medical Class Number (Percent)		
	First	Second	Third
16-19	58,312 (16.06)	5,601 (6.39)	22,310 (11.85)
20-24	59,907 (16.50)	6,846 (7.81)	22,067 (11.72)
25-29	50,011 (13.77)	7,124 (8.13)	19,786 (10.51)
30-34	40,335 (11.11)	7,593 (8.67)	19,998 (10.62)
35-39	32,227 (8.87)	10,395 (11.86)	21,771 (11.56)
40-44	24,408 (6.72)	8,193 (9.35)	10,514 (5.58)
45-49	22,458 (6.18)	7,780 (8.88)	12,014 (6.38)
50-54	23,061 (6.35)	7,799 (8.90)	12,746 (6.77)
55-59	23,305 (6.42)	7,640 (8.72)	12,677 (6.73)
60-64	21,724 (5.98)	7,226 (8.25)	12,442 (6.61)
65+	7,413 (2.04)	11,420 (13.03)	21,941 (11.65)
Total	363,161	87,617	188,266

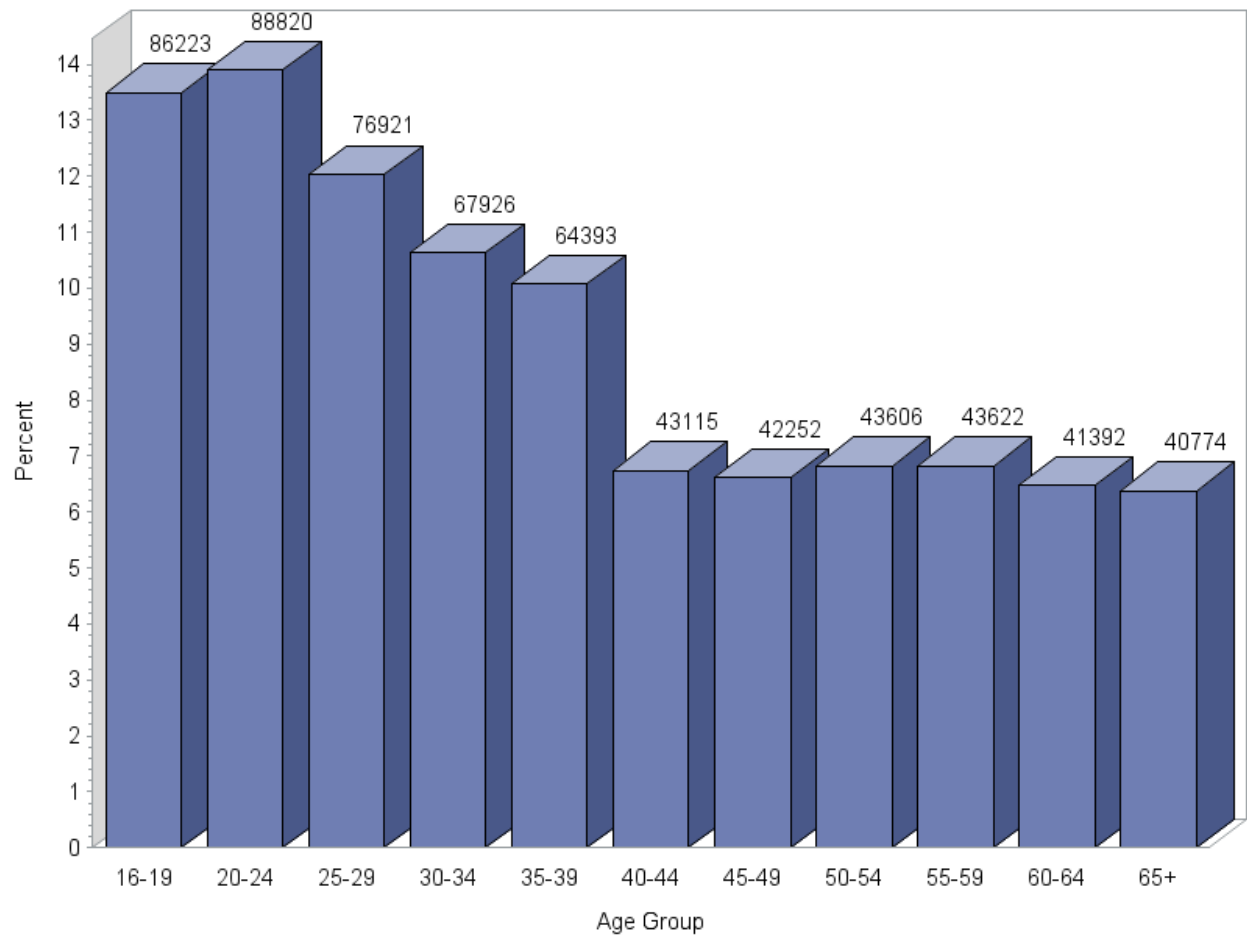


Figure 4. Age Group Distribution of All Active Airmen at Time of Exam

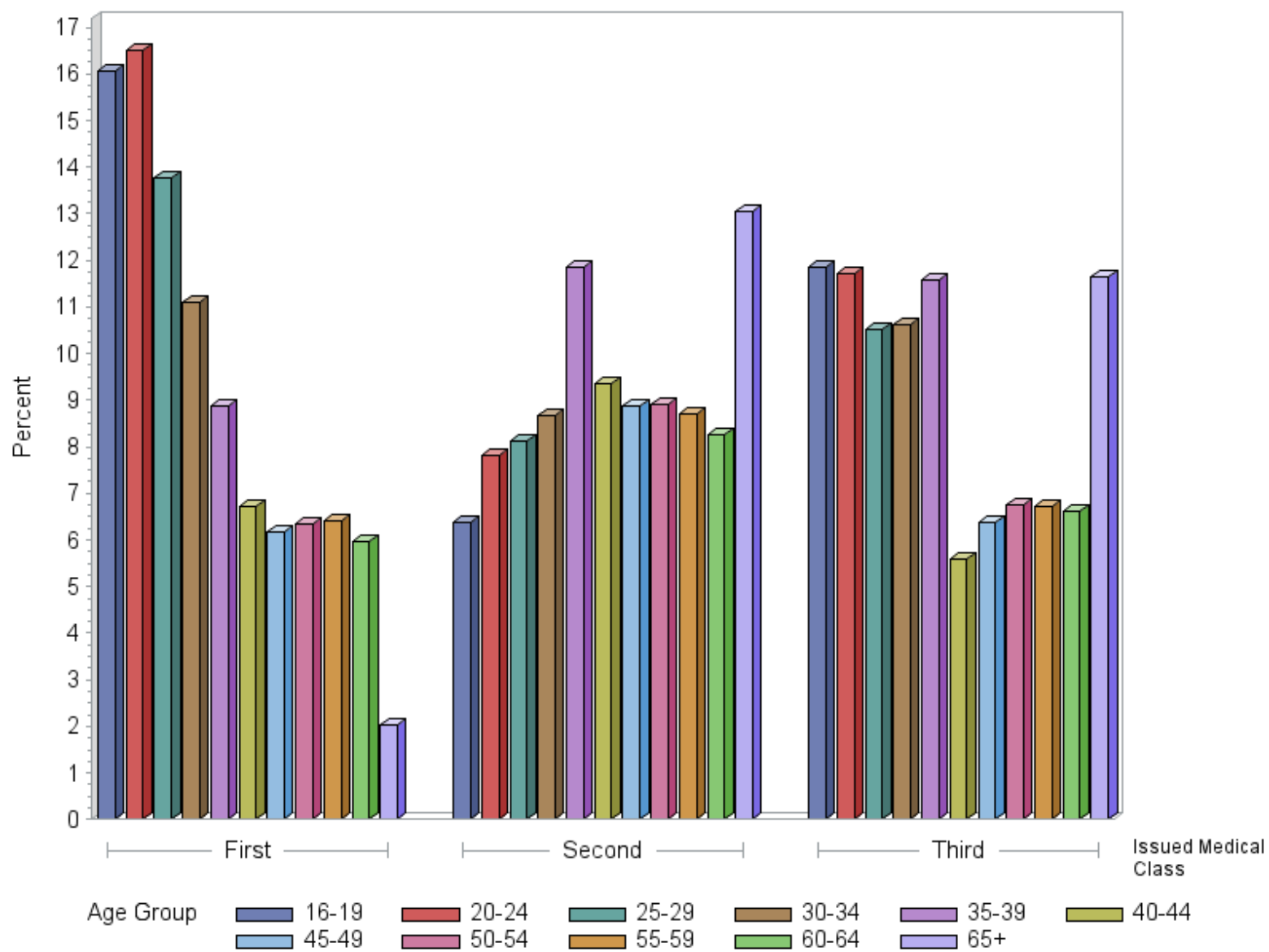


Figure 5. Age Group Distribution by Issued Medical Class for All Active Airmen at Time of Exam

Table 8. Age at Time of Exam by Issued Medical Class and Gender

Age Group in Years ^a	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
16-19	11,690	46,622	1,094	4,507	4,732	17,578	17,516	68,707
20-24	8,754	51,153	881	5,965	3,330	18,737	12,965	75,855
25-29	6,626	43,385	841	6,282	2,668	17,117	10,135	66,784
30-34	4,863	35,472	749	6,844	2,348	17,650	7,960	59,966
35-39	2,861	29,366	883	9,512	2,117	19,654	5,861	58,532
40-44	1,610	22,798	561	7,632	886	9,628	3,057	40,058
45-49	1,353	21,105	457	7,323	830	11,184	2,640	39,612
50-54	1,197	21,864	358	7,441	769	11,977	2,324	41,282
55-59	1,033	22,272	317	7,323	751	11,926	2,101	41,521
60-64	722	21,002	268	6,958	637	11,805	1,627	39,765
65+	124	7,289	302	11,118	905	21,036	1,331	39,443
Total	40,833	322,328	6,711	80,905	19,973	168,292	67,517	571,525

^a 2 airmen missing gender

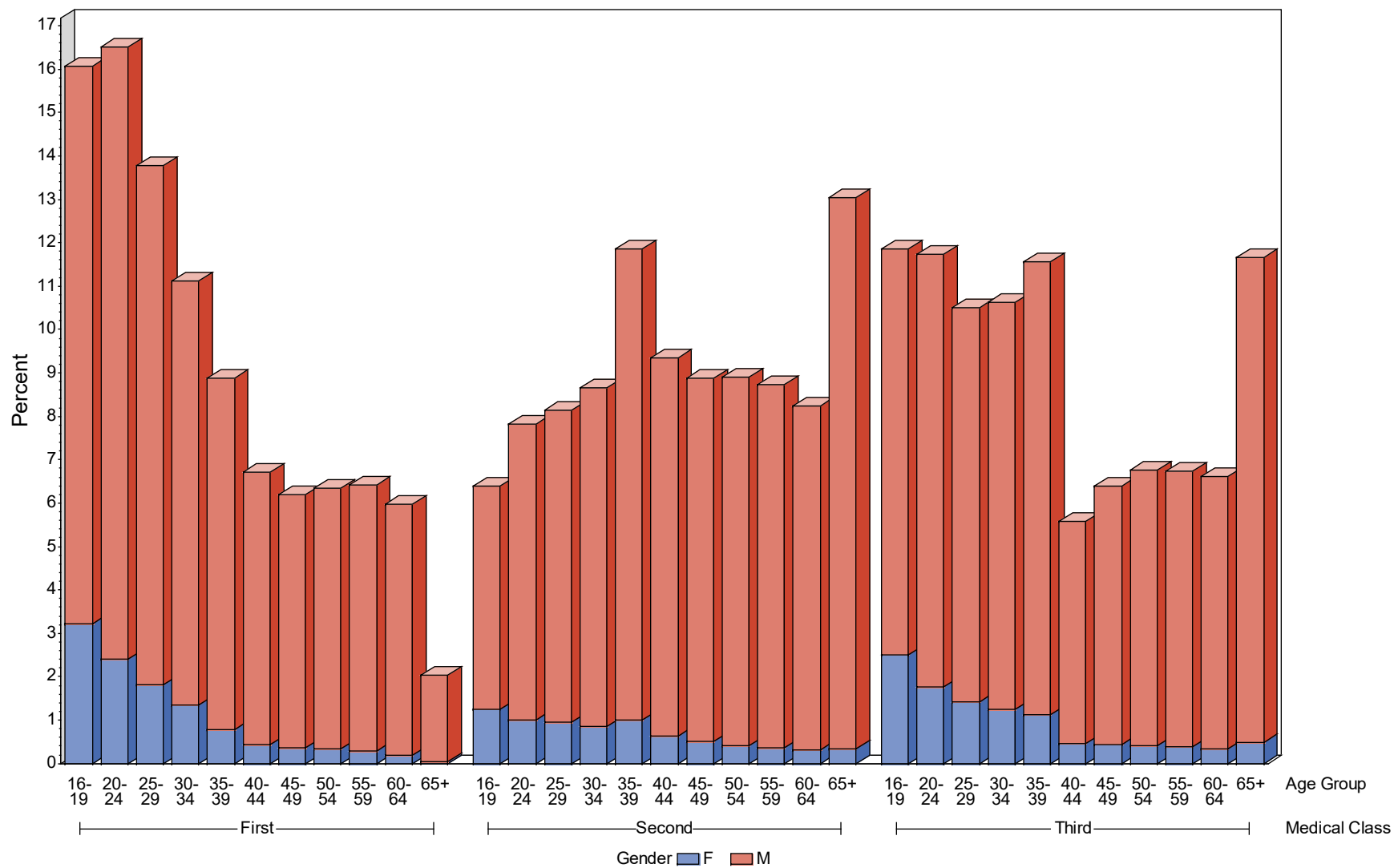


Figure 6. Age Group Distribution at Time of Exam by Gender and Issued Medical Class

Table 9. Height of All Active Airmen by Gender and Issued Medical Class

Issued Medical Class ^a		Number of Airmen	Mean Height in Inches	Median Height in Inches	Standard Deviation in Inches
First	Females	40,830	65.1	65.0	2.7
	Males	322,320	70.6	71.0	2.8
Second	Females	6,711	65.3	65.0	2.7
	Males	80,902	70.6	71.0	2.7
Third	Females	19,973	65.1	65.0	2.7
	Males	168,285	70.5	71.0	2.8
All Classes	Females	67,514	65.1	65.0	2.7
	Males	571,507	70.6	71.0	2.8

^a 21 airmen missing height, 2 airmen missing gender

Table 10. Height by Issued Medical Class and Gender

Height in Inches ^a	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
<59	199	145	36	54	131	143	366	342
59	288	75	45	15	137	60	470	150
60	953	181	144	66	497	162	1594	409
61	1592	174	263	58	793	144	2648	376
62	3339	367	515	78	1727	236	5581	681
63	4687	897	711	183	2220	523	7618	1603
64	6054	2441	961	586	2988	1418	10003	4445
65	5786	5531	928	1197	2765	3018	9479	9746
66	5593	12149	943	2825	2684	6386	9220	21360
67	4775	20616	799	4882	2310	10827	7884	36325
68	3191	29583	582	7368	1633	15494	5406	52445
69	2143	38864	377	9740	1015	19696	3535	68300
70	1244	47743	231	12285	569	25415	2044	85443
71	565	42762	100	11002	295	22374	960	76138
72	277	46062	51	12112	129	24466	457	82640
73	73	28215	12	7063	39	14209	124	49487
74	37	22608	8	5612	23	11486	68	39706
75	16	12483	3	2989	9	6209	28	21681
76	11	6979	0	1683	5	3578	16	12240
77	2	2750	1	658	1	1390	4	4798
78+	5	1695	1	446	3	1051	9	3192
Total	40830	322320	6711	80902	19973	168285	67514	571507

^a 21 airmen missing height, 2 airmen missing gender

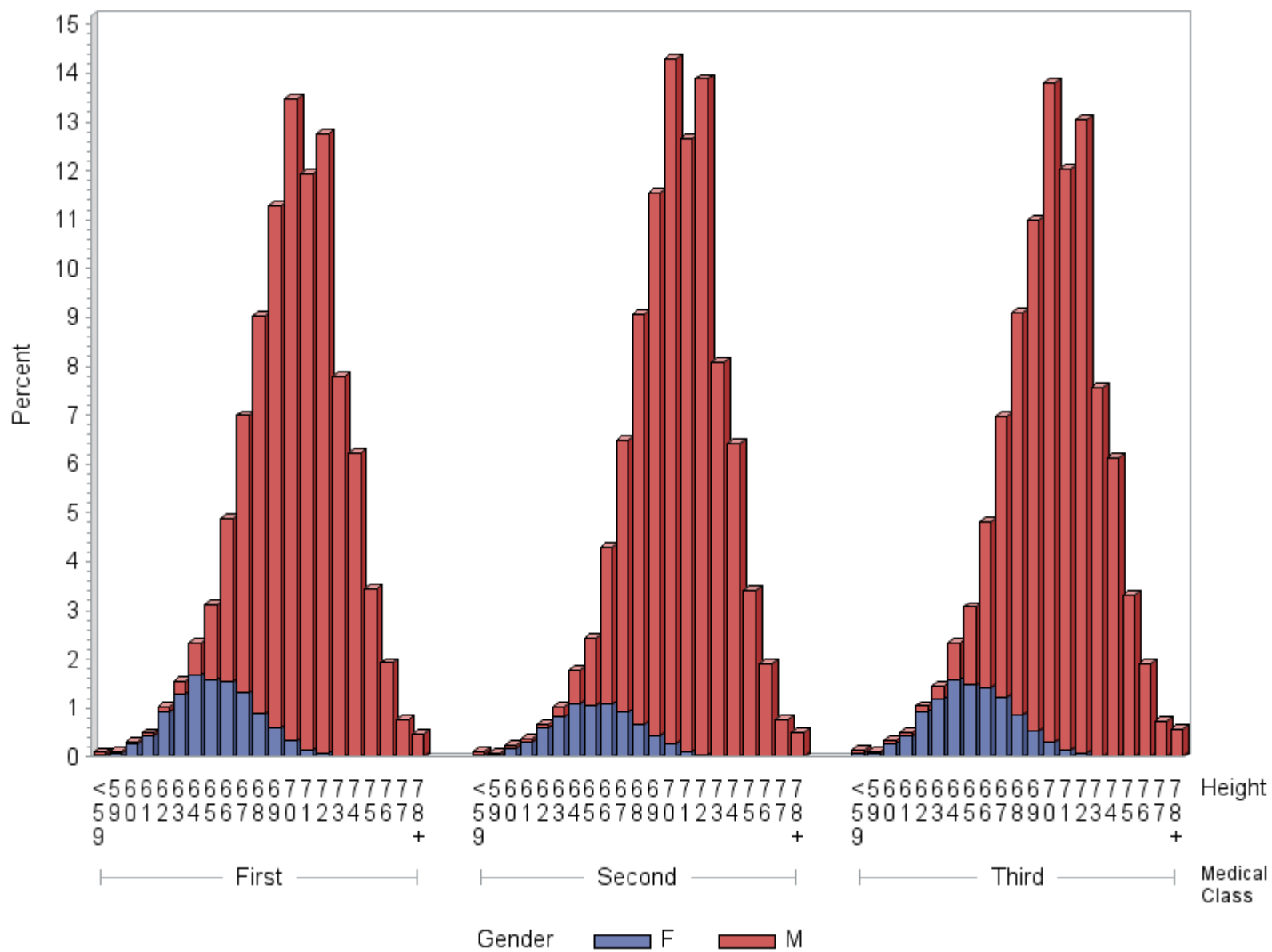


Figure 7. Height (Inches) by Gender and Issued Medical Class

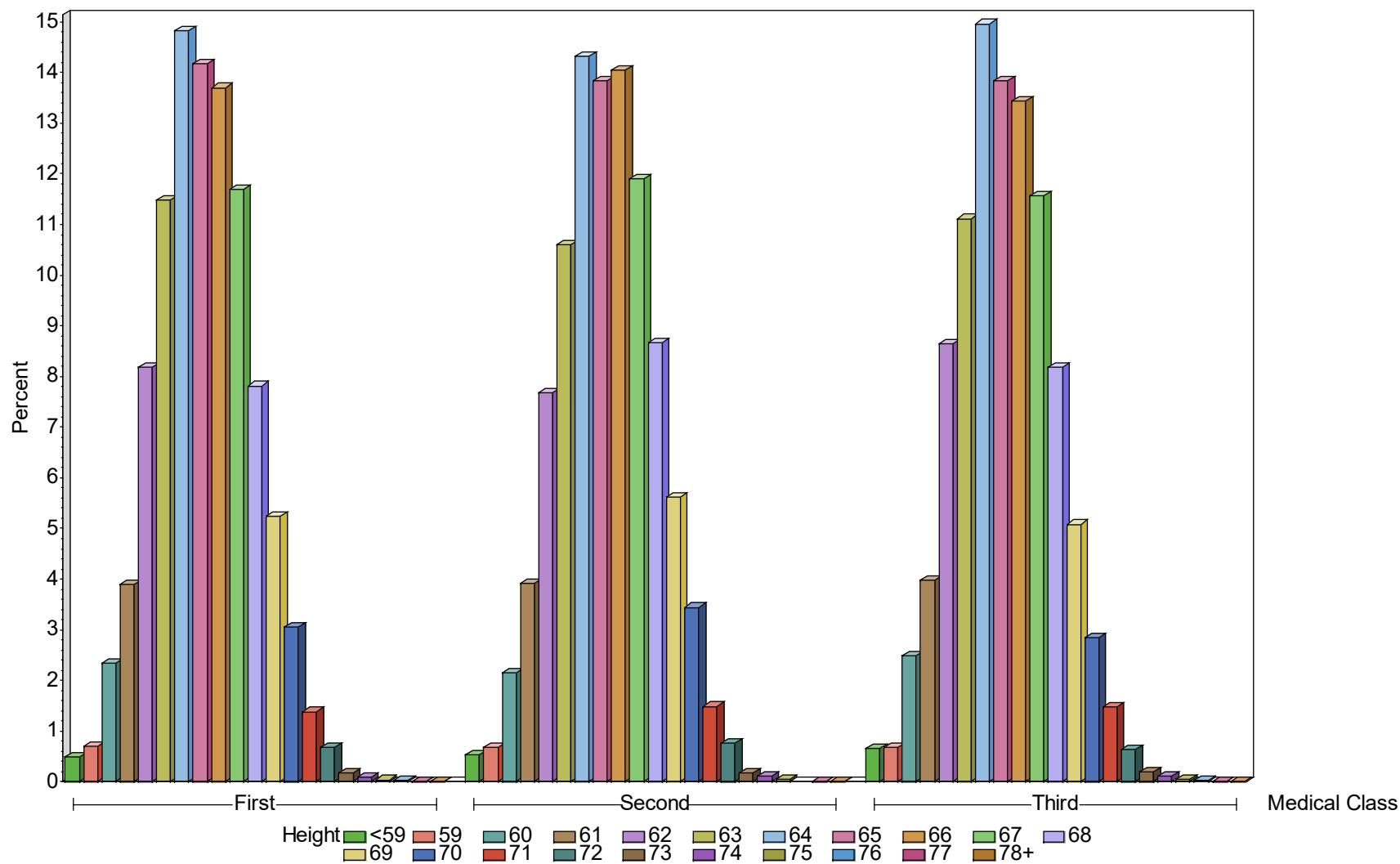


Figure 8. Height (Inches) by Issued Medical Class – Female Airmen Only

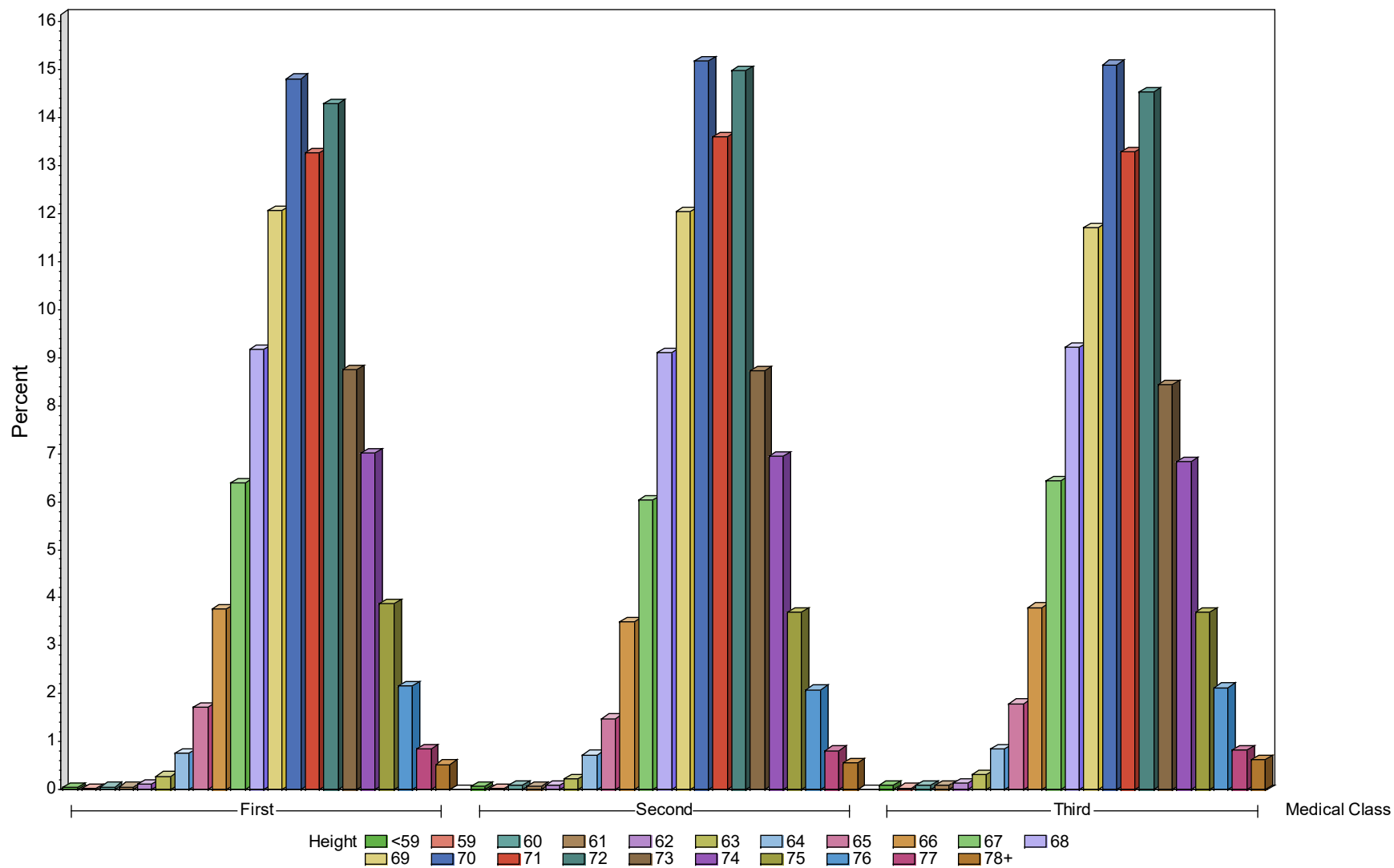


Figure 9. Height (Inches) by Issued Medical Class – Male Airmen Only

Table 11. Weight of All Active Airmen by Gender and Issued Medical Class

Issued Medical Class ^a		Number of Airmen	Mean Weight in Pounds	Median Weight in Pounds	Standard Deviation in Pounds
First	Females	40,825	147.2	140.0	31.3
	Males	322,275	189.6	185.0	35.7
Second	Females	6,710	151.2	145.0	32.6
	Males	80,886	197.6	194.0	35.4
Third	Females	19,970	146.3	140.0	30.9
	Males	168,247	192.4	189.0	36.7
All Classes	Females	67,505	147.3	141.0	31.3
	Males	571,408	191.6	188.0	36.0

^a 129 airmen missing weight, 2 airmen missing gender

Table 12. Weight by Issued Medical Class and Gender

Weight in Pounds ^a	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
<100	497	128	53	31	254	76	804	235
100-109	1,752	524	229	70	856	307	2,837	901
110-119	4,038	1,986	561	239	2,008	941	6,607	3,166
120-129	6,032	5,146	836	633	3,045	2,295	9,913	8,074
130-139	6,768	10,326	1,062	1,407	3,423	4,771	11,253	16,504
140-149	5,854	17,158	993	2,568	2,844	8,049	9,691	27,775
150-159	4,537	25,351	811	4,405	2,265	12,117	7,613	41,873
160-169	3,295	33,162	613	6,701	1,573	16,163	5,481	56,026
170-179	2,344	38,285	428	8,905	1,101	19,463	3,873	66,653
180-189	1,759	40,418	331	10,329	810	20,857	2,900	71,604
190-199	1,138	35,468	214	9,842	534	18,690	1,886	64,000
200-209	797	30,056	170	8,786	355	16,086	1,322	54,928
210-219	592	23,718	127	7,335	276	13,034	995	44,087
220-229	447	18,608	89	5,907	188	10,320	754	34,835
230-239	313	13,228	67	4,307	132	7,706	512	25,241
240-249	227	9,446	44	2,999	97	5,284	368	17,729
250-259	127	6,405	14	2,078	83	3,896	224	12,379
260-269	94	4,300	20	1,495	43	2,593	157	8,388
270-279	70	2,894	23	893	27	1,876	120	5,663
280+	114	5,668	25	1,956	56	3,723	195	11,347
Total	40,795	322,275	6,710	80,886	19,970	168,247	67,505	571,408

^a 129 airmen missing weight, 2 airmen missing gender

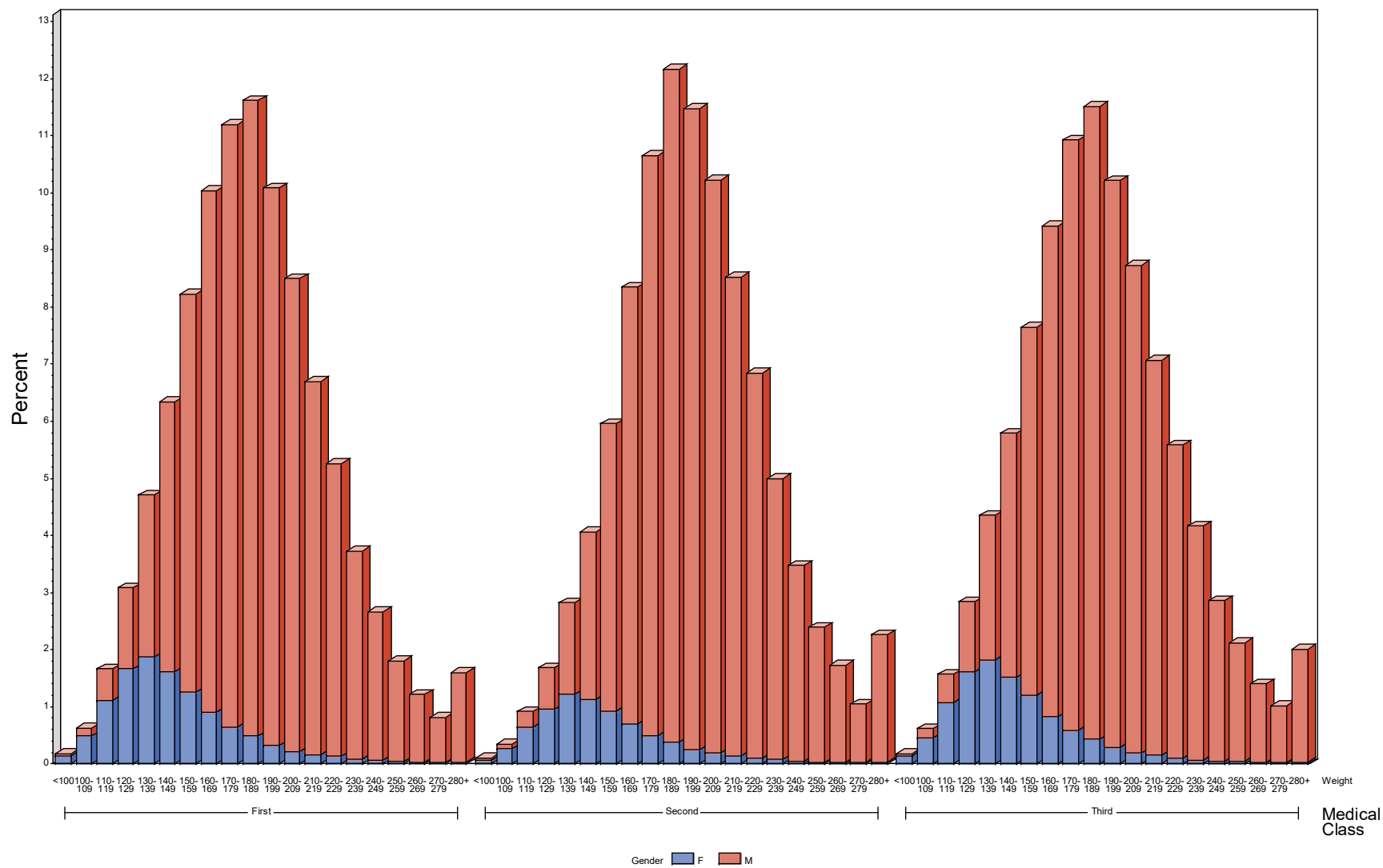


Figure 10. Weight (Pounds) by Gender and Issued Medical Class

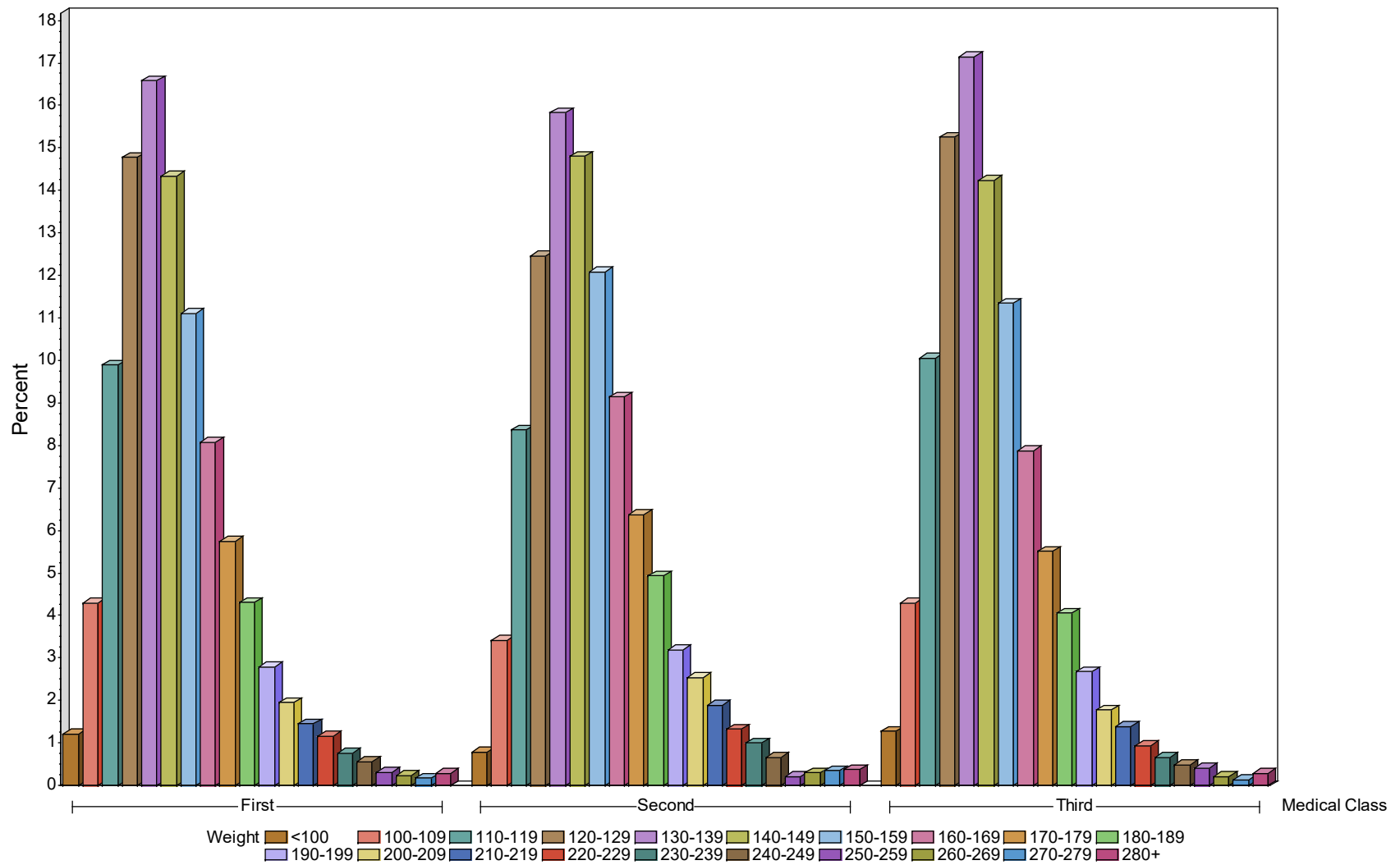


Figure 11. Weight (Pounds) by Issued Medical Class – Female Airmen Only

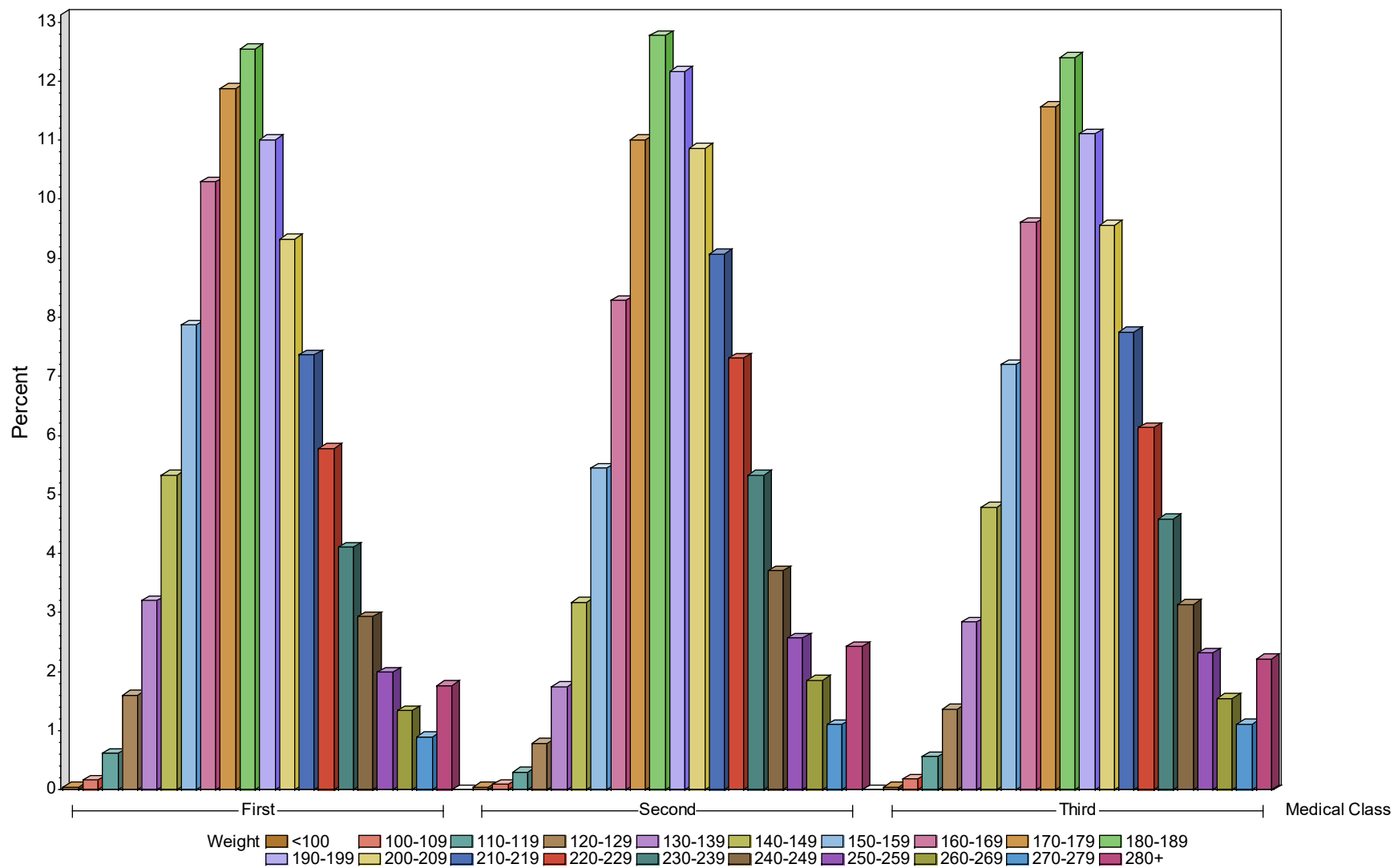


Figure 12. Weight (Pounds) by Issued Medical Class – Male Airmen Only

Table 13. BMI of all Active Airmen by Gender and Issued Medical Class

Issued Medical Class ^a		Number of Airmen	Mean BMI in kg/m ²	Median BMI in kg/m ²	Standard Deviation in kg/m ²
First	Females	40,825	24.4	23.3	4.9
	Males	322,267	26.7	26.3	4.6
Second	Females	6,710	24.9	23.9	5.0
	Males	80,883	27.8	27.4	4.6
Third	Females	19,970	24.2	23.2	4.8
	Males	168,241	27.2	26.6	4.7
All Classes	Females	67,505	24.4	23.3	4.9
	Males	571,391	27.0	26.5	4.6

Note. BMI = body mass index.

^a 146 airmen missing BMI, 2 airmen missing gender

Table 14. BMI Category by Issued Medical Class and Gender

BMI Category ^a	Issued Medical Class							
	First		Second		Third		Total Airmen	
	Female	Male	Female	Male	Female	Male	Female	Male
Underweight	2,002	5,412	240	654	1,004	2,431	3,246	8,497
Normal	24,495	114,260	3,779	20,804	12,220	54,384	40,494	189,448
Overweight	9,347	136,152	1,750	37,175	4,506	71,826	15,603	245,153
Obese	4,981	66,443	941	22,250	2,240	39,600	8,162	128,293
Total	40,825	322,267	6,710	80,883	19,970	168,241	67,505	571,391

Note. BMI = body mass index.

^a 146 airmen missing BMI, 2 airmen missing gender

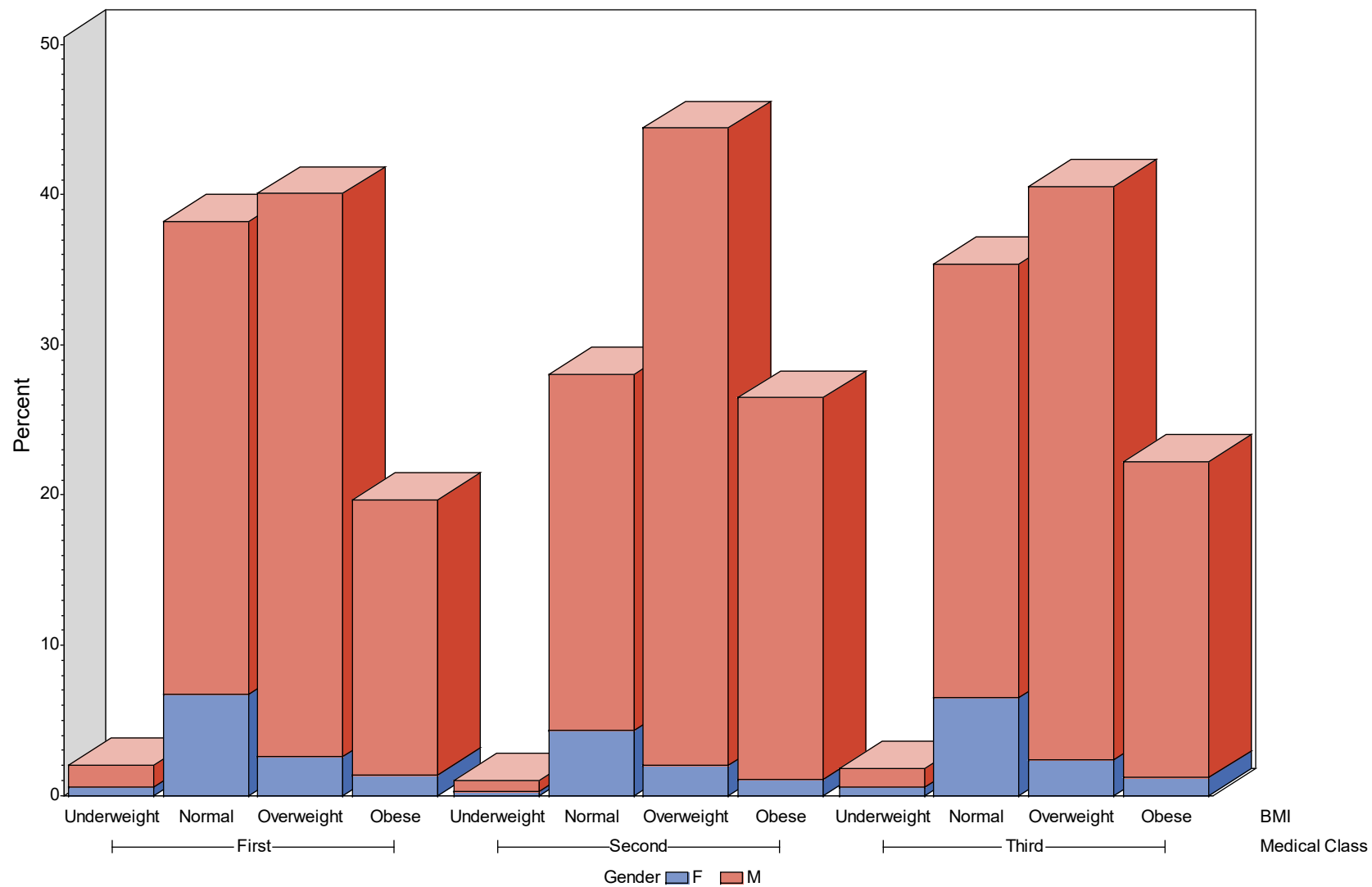


Figure 13. BMI Category by Gender and Issued Medical Class

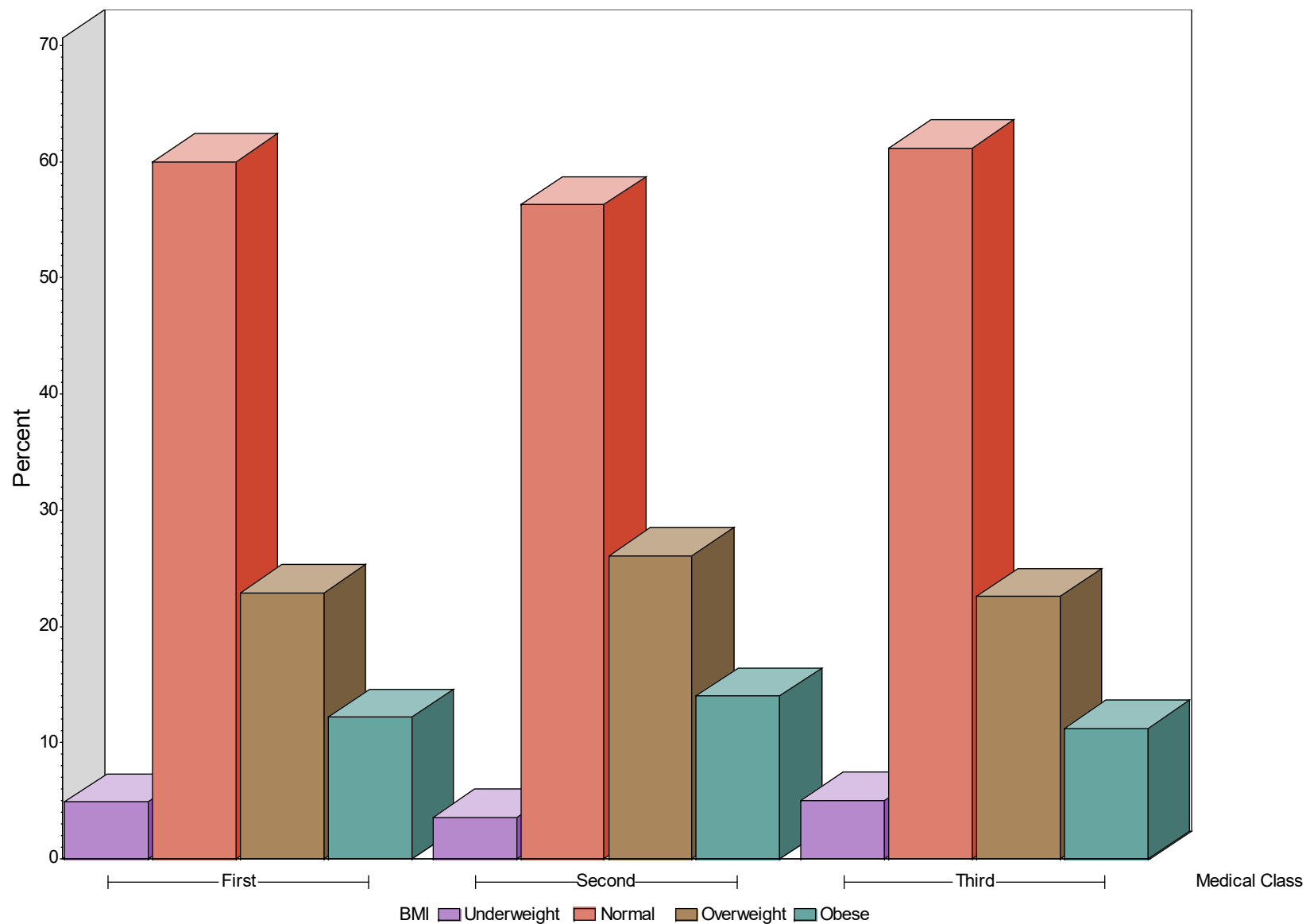


Figure 14. BMI Category by Issued Medical Class – Female Airmen Only

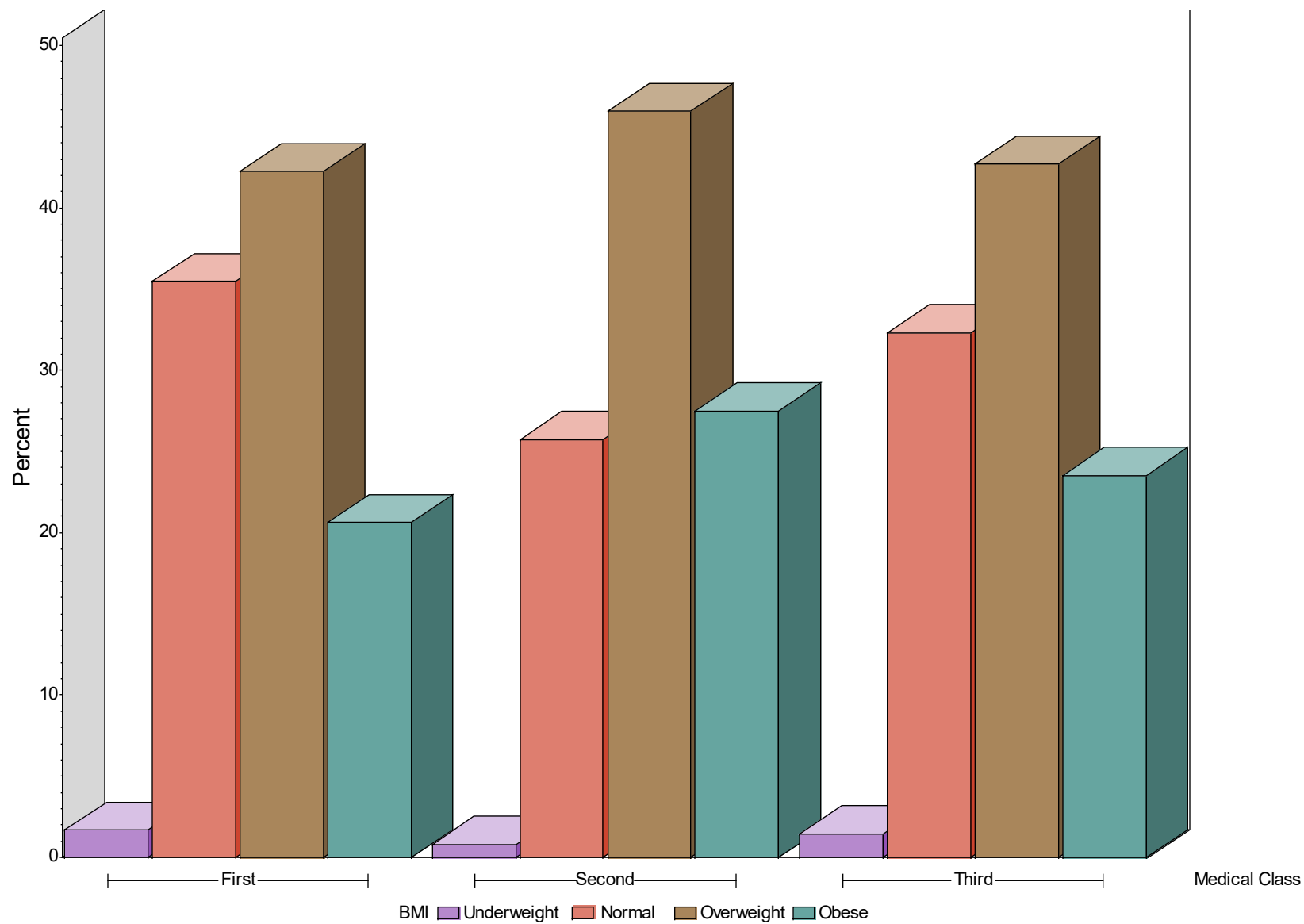


Figure 15. BMI Category by Issued Medical Class – Male Airmen Only

Table 15. Special Issuance by Issued Medical Class, Gender, Age, and BMI

		Special Issuance	
		Yes (Percent)	No (Percent)
Class Issued	First	21,366 (5.9)	341,795 (94.1)
	Second	7,173 (8.2)	80,444 (91.8)
	Third	11,304 (6.0)	176,962 (94.00)
Gender ^a	Female	1,944 (2.9)	65,573 (97.1)
	Male	37,899 (6.6)	533,626 (93.4)
Age at Exam (years)	16-19	1,401 (1.6)	84,822 (98.4)
	20-24	1,482 (1.7)	87,338 (98.3)
	25-29	1,473 (1.9)	75,448 (98.1)
	30-34	1,727 (2.5)	66,199 (97.5)
	35-39	2,255 (3.5)	62,138 (96.5)
	40-44	3,049 (7.1)	40,066 (92.9)
	45-49	3,806 (9.0)	38,446 (91.0)
	50-54	4,797 (11.0)	38,809 (89.0)
	55-59	5,998 (13.8)	37,624 (86.3)
	60-64	6,516 (15.7)	34,876 (84.3)
	65+	7,339 (18.0)	33,435 (82.0)
BMI (kg/m ²) ^b	Underweight	252 (2.2)	11,491 (97.9)
	Normal	8,023 (3.5)	221,921 (96.5)
	Overweight	16,967 (6.5)	243,789 (93.5)
	Obese	14,594 (10.7)	121,861 (89.3)
Total		39,843 (6.2)	599,201 (93.8)

Note. BMI = body mass index.

^a 2 airmen missing gender

^b 146 airmen missing BMI

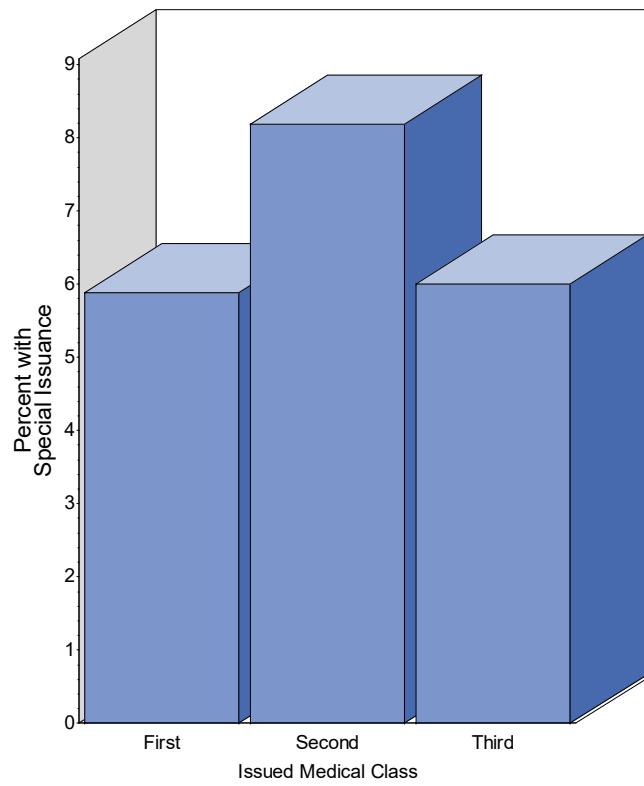


Figure 16. Special Issuance by Issued Medical Class

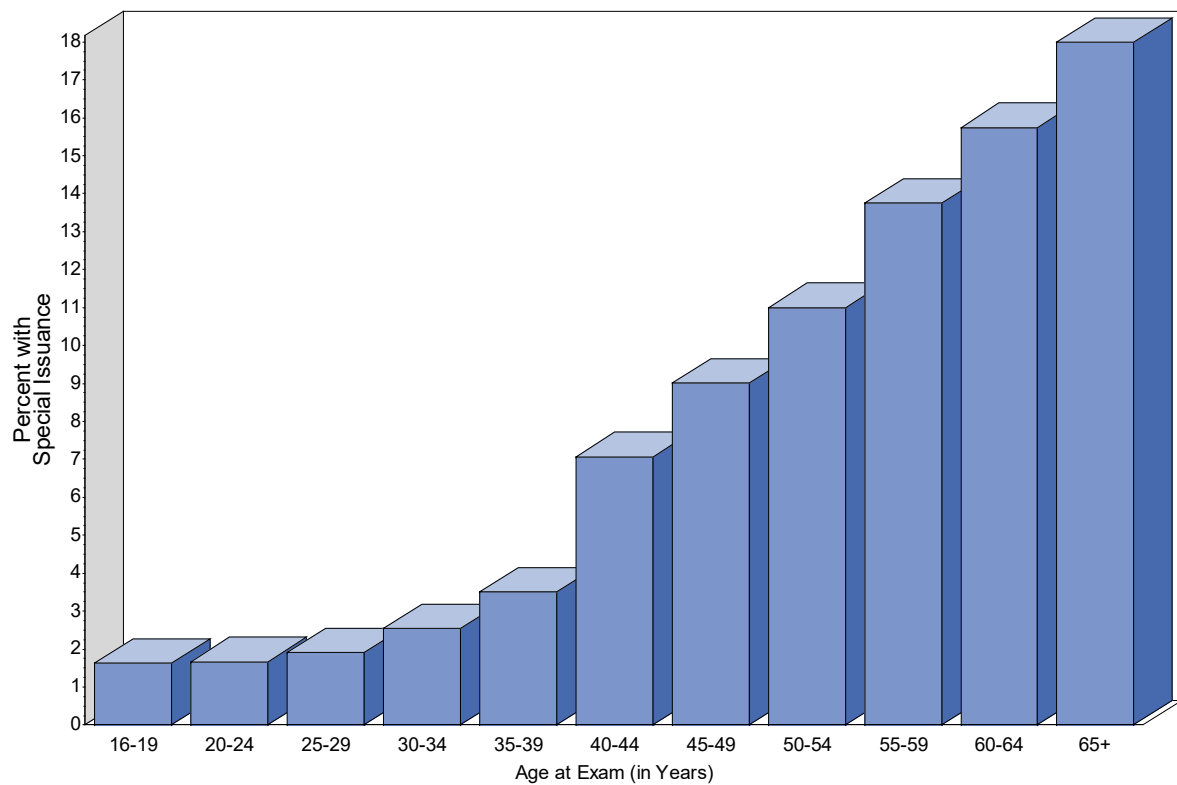


Figure 17. Special Issuance by Age Group at Time of Exam

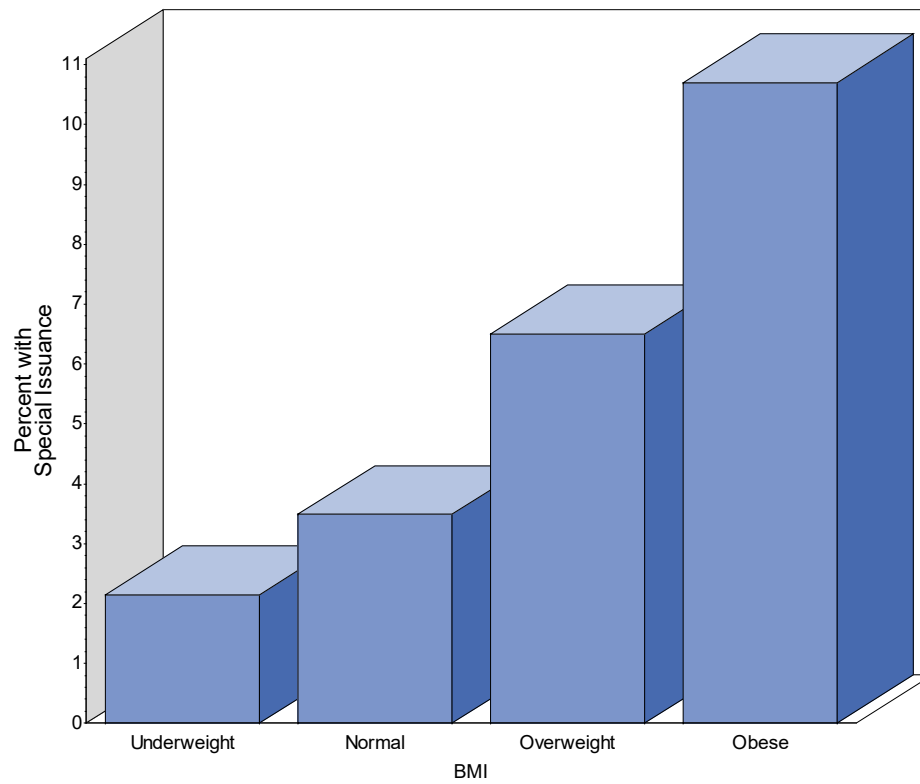


Figure 18. Special Issuance by BMI Category

Table 16. Top 15 Reported Medical Conditions

Pathology Description	Number	Percent
Hypertension with medication	36,433	5.7
Other miscellaneous allergic conditions ^a	29,905	4.7
Other lower extremities conditions – operations, fractures, dislocation, knee replacement, knee reconstruction, ACL reconstruction ^b	17,389	2.7
Hernias – inguinal, femoral, umbilical, hiatal	17,197	2.7
Sleep apnea, restless leg syndrome	16,128	2.5
Other esophagus, stomach, and duodenal conditions – severe gastritis, esophageal reflux, achalasia, GERD, gastropasty, dysphagia, dyspepsia, thrombus abdomen aorta ^c	14,847	2.3
Urolithiasis – stones or calculus of kidney, ureter, bladder	14,182	2.2
Asthma	12,509	2.0
Male genital system – prostatic, varicocele, hydrocele, TURP, spermatocele, BPH	11,006	1.7
Other skin conditions – includes acne, abnormal pigmentation, vitiligo, psoriasis, keratosis, neurofibroma (basal cell carcinoma), adenoma, ganglioneuroma, fibroma, fibroadenoma, neuroma, Morton's neuroma, hemangioma ^d	10,956	1.7
Spinal and Core Musculoskeletal Conditions	10,595	1.7
Other shoulder conditions – operations, trauma, recurrent dislocations, frozen shoulder, rotator cuff surgery, etc.	10,020	1.6
Anxiety	9,893	1.5
Other intestinal conditions – diverticulitis, polyposis, appendicitis, appendectomy, colon cancer, rectal cancer, appendix cancer, colon resection, Celiac Disease, gastroenteritis, colectomy, Sprue Disease	9,683	1.5
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 ^e	9,423	1.5

Note. AV = atrioventricular; BPH = benign prostatic hypertrophy; ECG = electrocardiogram; GERD = gastroesophageal reflux disease; TURP = transurethral resection of the prostate.

^a Excludes hayfever and asthma.

^b Excludes deformity of toes, foot, or leg, diseases (synovitis, arthritis, bursitis, osteomyelitis, neoplasms, polymyalgia rheumatica, etc.), rheumatoid arthritis, unstable knee (locked knee, herniated meniscus, no patella)

^c Excludes ulcers, gastrectomy, lap-band staple bypass, gastric bypass, hernias, esophageal varices

^d Excludes dermatitis, pilonidal cyst, significant scarring, melanoma, squamous cell carcinoma

^e Excludes cardiomyopathy, pacemaker, cardiac stents, cardiac angioplasty

Table 17. Medical Conditions by Issued Medical Class

		Issued Medical Class (Percent)			Total
		First	Second	Third	
Vision	Color vision deficiency ^a	1,834 (0.51)	594 (0.68)	764 (0.41)	3,192 (0.50)
	Monocular vision	256 (0.07)	205 (0.23)	404 (0.21)	865 (0.14)
Transplants	Lung transplant	1 (0.00)	1 (0.00)	1 (0.00)	3 (0.00)
	Heart transplant	0 (0.00)	0 (0.00)	3 (0.00)	3 (0.00)
	Liver transplant	22 (0.01)	10 (0.01)	19 (0.01)	51 (0.01)
	Kidney transplant	58 (0.02)	22 (0.03)	37 (0.02)	117 (0.02)
Cardiac	Myocardial infarction	849 (0.23)	275 (0.31)	620 (0.33)	1,744 (0.27)
	Coronary angioplasty with a stent	1,218 (0.34)	379 (0.43)	1,070 (0.57)	2,667 (0.42)
	Coronary angioplasty procedure	631 (0.17)	206 (0.24)	649 (0.34)	1,486 (0.23)
	Coronary artery bypass surgery	353 (0.10)	120 (0.14)	348 (0.18)	821 (0.13)
	Implanted pacemaker	132 (0.04)	66 (0.08)	112 (0.06)	310 (0.05)
	Aortic valve conditions ^b	1,003 (0.28)	270 (0.31)	495 (0.26)	1,768 (0.28)
	Mitral valve conditions ^c	814 (0.22)	302 (0.34)	406 (0.22)	1,522 (0.24)
	Hypertension with medication	16,777 (4.6)	7,878 (9.0)	11,778 (6.3)	36,433 (5.70)

		Issued Medical Class (Percent)			Total
		First	Second	Third	
Alcohol and Drugs	Alcohol abuse/dependence	3,646 (1.00)	933 (1.06)	1,051 (0.56)	5,630 (0.88)
	Drug abuse/dependence	2,115 (0.58)	513 (0.59)	606 (0.32)	3,234 (0.51)
	Alcohol/Drug case monitored	2,771 (0.76)	369 (0.42)	435 (0.23)	3,575 (0.56)
	Alcohol-related offense ^d	13,453 (3.70)	5,200 (5.93)	7,788 (4.14)	26,441 (4.14)
	Drug-related offense/misuse ^e	1,358 (0.37)	467 (0.53)	653 (0.35)	2,478 (0.39)
Other conditions of interest	Sleep apnea ^f	8,222 (2.26)	3,677 (4.20)	4,229 (2.25)	16,128 (2.52)
	SSRI ^g	858 (0.24)	165 (0.19)	506 (0.27)	1,529 (0.24)
	SSRI special issuance	599 (0.16)	67 (0.08)	242 (0.13)	908 (0.14)
	Diabetes ^h	3,065 (0.84)	1,488 (1.70)	2,672 (1.42)	7,225 (1.13)

Note. DUI = driving under the influence; DWI = driving while intoxicated; SSRI = selective serotonin reuptake inhibitor.

^a Color vision deficiency at initial screening test

^b Includes aortic valvular disease, aortic stenosis, aortic regurgitation, aortic insufficiency, bicuspid aortic valve (also replacement), ruptured or lacerated aorta, aortic bruit. Does not include valve replacement.

^c Includes mitral valve disease, mitral stenosis, mitral regurgitation, mitral insufficiency, mitral valve repair. Does not include valve replacement.

^d Includes DUI, DWI, public intoxication, wet/reckless, .04–.09 blood alcohol level.

^e Includes drug offenses and positive drug tests other than Drug Industry Program (Failed Drug Testing)

^f Includes restless leg syndrome

^g Includes SSRI for major depressive disorder (single or recurrent episode), adjustment disorder with depressed mood, dysthymic disorder.

^h Controlled by hypoglycemic drugs or insulin

Section II. Nine-Year Trends in the Active Airman Population

The demographics of the active airmen have changed drastically in the last seven years, specifically within the first- and third-class airmen populations. In 2020, in response to the pandemic, the validity period of the certificate was extended for airmen, which may have led to a lower reported count for that year within this handbook compared to the actual number of active airmen. However, the reported figures for all other years are expected to be precise. Consequently, trends reported for 2020 may exhibit an understated representation.

Mean age has generally decreased across all classes from 2016 to 2024, indicating a potential shift towards younger airmen. There is a significant increase in the overall number of first-class active airmen with a noteworthy decrease in the mean age within this group. The composition of the overall airmen population is also changing, with more first-class airmen and fewer third-class airmen. Overall, the percentage of females also increased by nearly 4% over this eight-year time period.

Since the inception of BasicMed in May 2017, there has been a significant reduction in the number of third-class airmen, especially those with SIs. While airmen come and go from the certificated population routinely, this section demonstrates the largely decreasing trends in active third-class airmen over the last seven years. In fact, the decrease in population is seen almost immediately after the BasicMed inception. The number of first-class airmen becomes the largest group after 2016, overtaking third-class in numbers beginning in 2017.

Table 18 demonstrates that within this timeframe, the first-class airmen population increased by at least 5% each year (with the exception of 2020), with 10-12% increases in 2022-2024, while the mean age decreased by 5.2 years. However, the percentage of airmen who possess an SI initially increased even with this younger population, but has remained steady over the last few years. The second-class airmen population is declining while the percentage requiring an SI is increasing. Lastly, the third-class airmen population has declined by 23% while the average age continues to decrease, and the number of special issues is holding steady after an initial decline in 2017.

Table 18. Summary Statistics of Active Airmen by Class and Year

			2016	2017	2018	2019	2020	2021	2022	2023	2024
Class Issued	First Class	Number of Active Airmen	206,024 (36.8%)	216,307 (39.7%)	231,934 (42.9%)	247,908 (45.2%)	254,740 (46.6%)	266,742 (47.6%)	294,920 (50.1%)	331,324 (53.7%)	363,161 (56.8%)
		Mean Age (Years)	40.5	40.3	39.7	39.1	38.5	37.9	36.9	36.1	35.3
		% Male	94.1	93.8	93.3	92.6	92.0	91.3	90.4	89.6	88.8
		% Special Issuance	5.0	5.3	5.4	5.7	5.5	5.7	5.7	6.0	5.9
	Second Class	Number of Active Airmen	110,728 (19.8%)	106,682 (19.6%)	103,677 (19.2%)	100,973 (18.4%)	98,061 (17.9%)	95,898 (17.1%)	93,154 (15.8%)	90,186 (14.6%)	87,61 (13.7%)
		Mean Age (Years)	43.8	43.8	43.9	44.0	44.1	44.3	44.4	44.5	44.7
		% Male	94.0	93.9	93.8	93.6	93.5	93.2	93.0	92.6	92.3
		% Special Issuance	5.7	5.8	6.0	6.4	6.4	6.9	6.9	7.6	8.2
	Third Class	Number of Active Airmen	243,400 (43.5%)	222,499 (40.8%)	205,144 (37.9%)	199,569 (36.4%)	193,702 (35.4%)	197,462 (35.3%)	201,168 (34.1%)	195,975 (31.7%)	188,266 (29.5%)
		Mean Age (Years)	44.7	43.7	42.4	41.9	41.5	41.5	41.2	40.9	40.7
		% Male	92.6	92.2	91.8	91.5	91.2	90.9	90.3	89.9	89.4
		% Special Issuance	7.7	6.2	5.8	5.9	5.8	6.0	5.7	6.1	6.0
	All Classes	Number of Active Airmen	560,152	545,488	540,725	548,450	546,503	560,102	589,242	617,485	639,044
		Mean Age (Years)	43.0	42.4	41.5	41.0	40.6	40.2	39.6	38.9	38.2
		% Male	93.4	93.2	92.8	92.4	92.0	91.5	90.8	90.1	89.4
		% Special Issuance	6.3	5.8	5.7	5.9	5.8	6.0	5.9	6.3	6.2

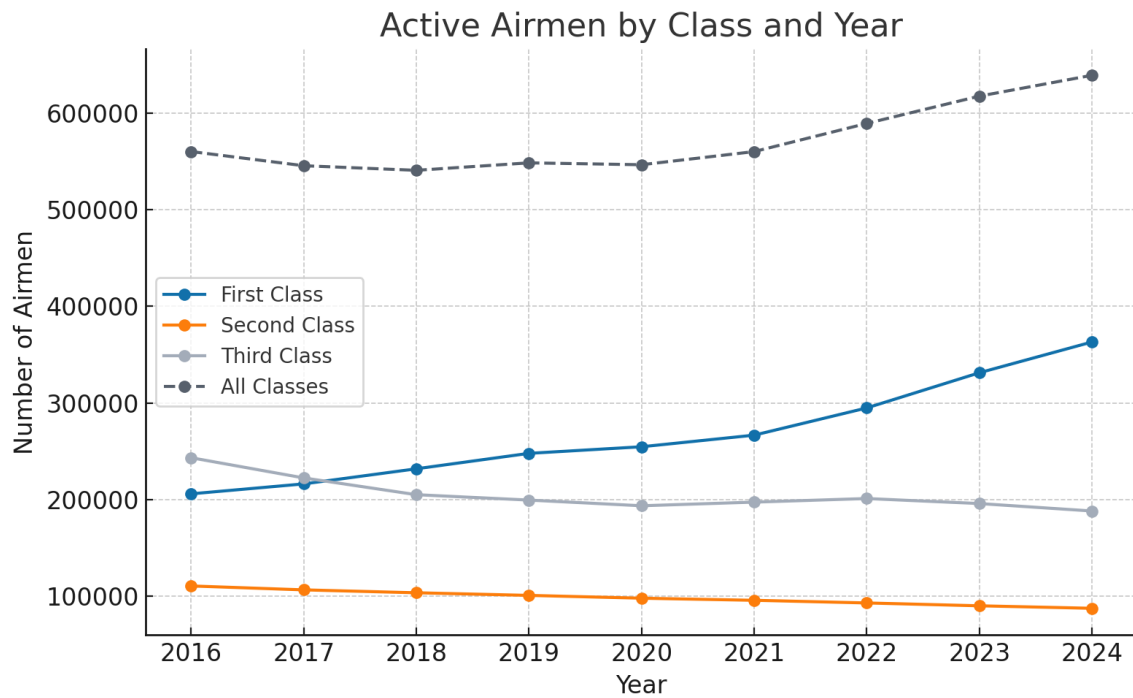


Figure 19. Number of Active Airmen by Class 2016-2024

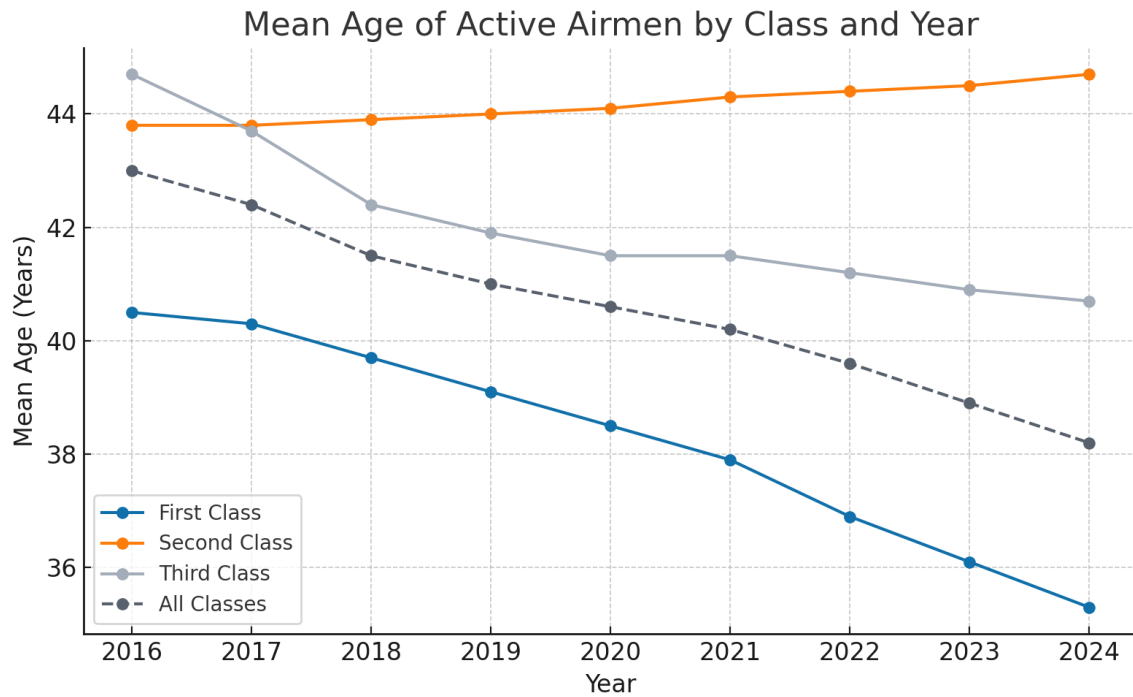


Figure 20. Mean age of Active Airmen by Class 2016-2024

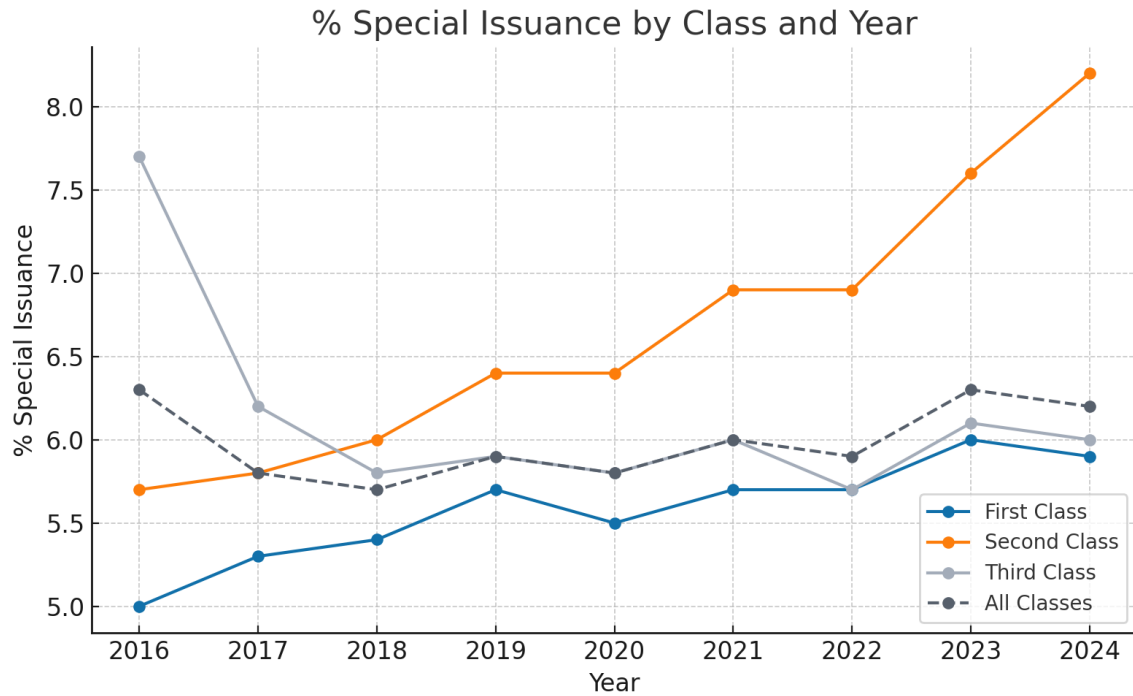


Figure 21. Percent of Active Airmen with a Special Issuance by Class 2016-2024

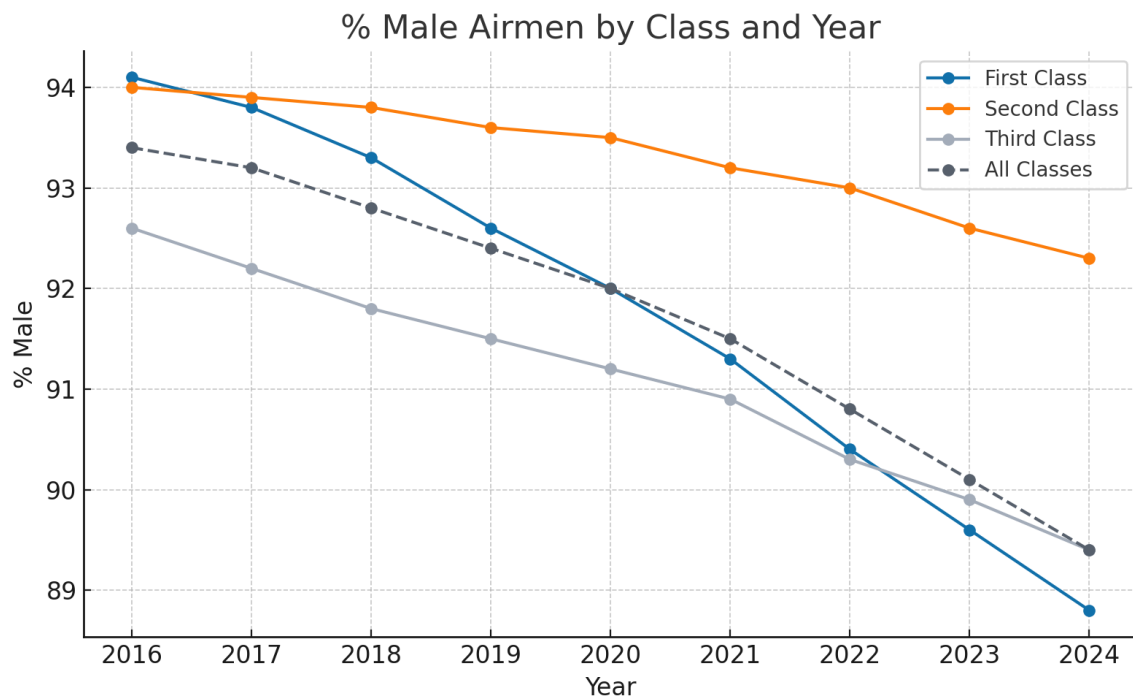


Figure 22. Percent of Male Active Airmen by Class 2016-2024

Section III. 2024 Aerospace Medical Certification Statistical Handbook Summary

This summary highlights key demographic, medical, and trend data from the 2024 Aerospace Medical Certification Statistical Handbook, based on FAA medical certification records from 2019–2024. These summary metrics illustrate the sustained growth in first-class certifications since 2016, the decline in third-class holders, a younger overall pilot population, and a modest but steady increase in female representation. Combined, these trends provide an important operational and regulatory perspective on the current state of U.S. civil aviation medical certification.

Category	Value
Total Medically Certified Airmen	639,044
First-Class Certificates	56.8%
Second-Class Certificates	13.7%
Third-Class Certificates	29.5%
Average Age (All Classes)	38.2 years
Male / Female (%)	89.4% / 10.6%
Mean BMI (Female/Male)	24.4 / 27.0 kg/m ²
Special Issuance (SI) Rate	6.2%
SI Rate for Obese BMI Category	10.7%
Most Common Medical Condition	Hypertension w/ medication (5.7%)
Largest FAA Region (by Airmen)	Southern Region (24.4% of total)
Female Representation Change (2016–2024)	+4.0%
Change Since 2016 -- Third-Class Population	-22.7% (mean annual decrease of 3.1%)
Change Since 2016 -- First-Class Population	+76.3% (mean annual increase of 7.5%)

Key Trends and Observations

- The active airman population totals 639,044, with first-class certificate holders now making up the majority.
- Female representation has increased by four percentage points since 2016.
- Overweight and obese BMI categories account for the majority of male airmen; obesity is linked to higher Special Issuance (SI) rates.
- The prevalence of hypertension, sleep apnea, orthopedic conditions, and mental health conditions such as anxiety underscores ongoing aeromedical monitoring needs.

- Since right before BasicMed's inception in 2017, third-class certificate holders—particularly those with SIs—have declined by 22.7%, while first-class holders have grown steadily.
- The Southern FAA region has the largest concentration of airmen at 24.4% of active total.
- SI rates increase sharply with age, reaching 18% for those 65 and older.