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# **2020 Aerospace Medical Certification Statistical Handbook**

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Final Report



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| 16. Abstract<br><p><b>Introduction.</b> The biennial Aerospace Medical Certification Statistical Handbook reports descriptive characteristics of all active U.S. civil aviation airmen. The 2020 handbook documents the most recent and most widely relevant data on active civil aviation airmen.</p> <p><b>Methods.</b> Medical certification records from 2015–2020 were selected from the Document Imaging Workflow System, which is the Federal Aviation Administration's (FAA's) medical certification database. All medical data were abstracted from the most recent medical examinations, except for medical conditions that were historical and current. Only those with a non-expired medical certificate remained in the dataset. Airman variables 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.</p> <p><b>Results.</b> As of December 31, 2020, 546,503 medically certified airmen were age 16 and older, and 46.6%, 17.9%, and 35.4% were issued a first-, second-, and third-class medical certificate, respectively. Across all medical classes, the average age was 40.6 years, 92% were male, and 8% were female. The mean BMI for female and male airmen was 24.2 kg/m<sup>2</sup> and 27.1 kg/m<sup>2</sup>, respectively. Nearly 5.8% of issued certificates required an SI. The most-reported medical condition was hypertension treated with medication, reported among 7.2% of the population.</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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## **2020 Aerospace Medical Certification Statistical Handbook**

### **Introduction**

The biennial Aerospace Medical Certification Statistical Handbook reports descriptive characteristics of all active U.S. civil aviation airmen. The 2020 handbook documents the most recent and most widely relevant data on active civil aviation airmen.

### **Methods**

Medical certification records from 2015–2020 were selected from the Document Imaging Workflow System, which is the Federal Aviation Administration's (FAA's) medical certification database. All medical data were abstracted from the most recent medical examinations, except for medical conditions that were historical and current. Only those with a non-expired medical certificate remained in the dataset.

Airman variables 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, 2020, 546,503 medically certified airmen were age 16 and older, and 46.6%, 17.9%, and 35.4% were issued a first-, second-, and third-class medical certificate, respectively. Across all medical classes, the average age was 40.6 years, 92% were male, and 8% were female. The mean BMI for female and male airmen was 24.2 kg/m<sup>2</sup> and 27.1 kg/m<sup>2</sup>, respectively. Nearly 5.8% of issued certificates required an SI. The most-reported medical condition was hypertension treated with medication, reported among 7.2% 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 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, 2020. Data may fluctuate slightly 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 age 40, 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, 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 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 abstracted from the most recent medical examinations, except for medical conditions. Medical conditions are determined by whether the airman has ever reported the condition on any past or current medical examination. BMI classifications are as follows: *Underweight* ( $<18.5 \text{ kg/m}^2$ ), *Normal* ( $18.5$  to  $24.9 \text{ kg/m}^2$ ), *Overweight* ( $25$  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 <sup>a</sup> | 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                              |

*Note.* N/A = not applicable.

<sup>a</sup> 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 <sup>a</sup>                  | First                     |                 |        |        | Second                    |                 |        | Third                     |                 | Total Active Airmen          |                               |                 |        |         |
|--------------------------------------|---------------------------|-----------------|--------|--------|---------------------------|-----------------|--------|---------------------------|-----------------|------------------------------|-------------------------------|-----------------|--------|---------|
|                                      |                           | Effective Class |        |        |                           | Effective Class |        |                           | Effective Class |                              |                               | Effective Class |        |         |
|                                      | 1st<br>Class<br>Certified | 1               | 2      | 3      | 2nd<br>Class<br>Certified | 2               | 3      | 3rd<br>Class<br>Certified | 3               | Total<br>Airmen<br>Certified | Percent<br>of Total<br>Airmen | 1               | 2      | 3       |
| Alaskan                              | 2,733                     | 1,838           | 192    | 703    | 1,682                     | 1,082           | 600    | 2,594                     | 2,594           | 7,009                        | 1.3                           | 1,838           | 1,274  | 3,897   |
| Central                              | 6,756                     | 4,084           | 536    | 2,136  | 4,406                     | 2,692           | 1,714  | 8,743                     | 8,743           | 19,905                       | 3.6                           | 4,084           | 3,228  | 12,593  |
| Eastern                              | 23,524                    | 14,942          | 1,600  | 6,982  | 10,053                    | 5,635           | 4,418  | 21,333                    | 21,333          | 54,910                       | 10.0                          | 14,942          | 7,235  | 32,733  |
| Great Lakes                          | 33,626                    | 21,357          | 2,082  | 10,187 | 10,843                    | 6,392           | 4,451  | 25,075                    | 25,075          | 69,544                       | 12.7                          | 21,357          | 8,474  | 39,713  |
| New England                          | 6,901                     | 4,703           | 470    | 1,728  | 2,617                     | 1,506           | 1,111  | 7,323                     | 7,323           | 16,841                       | 3.1                           | 4,703           | 1,976  | 10,162  |
| Northwest-Mountain                   | 28,950                    | 18,148          | 2,167  | 8,635  | 12,913                    | 7,349           | 5,564  | 20,466                    | 20,466          | 62,329                       | 11.4                          | 18,148          | 9,516  | 34,665  |
| Southern                             | 64,251                    | 39,733          | 4,947  | 19,571 | 21,831                    | 13,158          | 8,673  | 41,976                    | 41,976          | 128,058                      | 23.4                          | 39,733          | 18,105 | 70,220  |
| Southwest                            | 29,039                    | 18,314          | 2,410  | 8,315  | 14,147                    | 8,619           | 5,528  | 24,879                    | 24,879          | 68,065                       | 12.5                          | 18,314          | 11,029 | 38,722  |
| Western-Pacific                      | 34,609                    | 20,291          | 2,517  | 11,801 | 15,009                    | 8,697           | 6,312  | 32,698                    | 32,698          | 82,316                       | 15.1                          | 20,291          | 11,214 | 50,811  |
| US Total                             | 230,389                   | 143,410         | 16,921 | 70,058 | 93,501                    | 55,130          | 38,371 | 185,087                   | 185,087         | 508,977                      | 93.1                          | 143,410         | 72,051 | 293,516 |
| International                        | 24,347                    | 7,609           | 1,428  | 15,310 | 4,558                     | 1,736           | 2,822  | 8,613                     | 8,613           | 37,518                       | 6.9                           | 7,609           | 3,164  | 26,745  |
| Total                                | 254,736                   | 151,019         | 18,349 | 85,368 | 98,059                    | 56,866          | 41,193 | 193,700                   | 193,700         | 546,495                      | 100.0                         | 151,019         | 75,215 | 320,261 |
| Percent of Total<br>Certified Airmen | 46.6                      |                 |        |        | 17.9                      |                 |        | 35.4                      |                 | 100.0                        |                               | 27.6            | 13.8   | 58.6    |

<sup>a</sup> Eight airmen with an unknown region



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

| State of Residence <sup>a</sup> | Issued Medical Class |         |        |        |        |         | Total Airmen |         |
|---------------------------------|----------------------|---------|--------|--------|--------|---------|--------------|---------|
|                                 | First                |         | Second |        | Third  |         |              |         |
|                                 | Female               | Male    | Female | Male   | Female | Male    | Female       | Male    |
| Alabama                         | 135                  | 1,711   | 65     | 2,062  | 234    | 2,575   | 434          | 6,348   |
| Alaska                          | 312                  | 2,421   | 127    | 1,555  | 323    | 2,271   | 762          | 6,247   |
| Arizona                         | 849                  | 9,085   | 230    | 2,953  | 542    | 6,595   | 1,621        | 18,633  |
| Arkansas                        | 76                   | 1,225   | 41     | 1,167  | 167    | 1,848   | 284          | 4,240   |
| California                      | 1,772                | 17,004  | 720    | 8,680  | 2,237  | 20,419  | 4,729        | 46,103  |
| Colorado                        | 862                  | 7,708   | 212    | 2,485  | 551    | 4,546   | 1,625        | 14,739  |
| Connecticut                     | 99                   | 1,558   | 34     | 474    | 130    | 1,610   | 263          | 3,642   |
| Delaware                        | 46                   | 545     | 10     | 205    | 35     | 348     | 91           | 1,098   |
| District of Columbia            | 15                   | 172     | 10     | 67     | 27     | 236     | 52           | 475     |
| Florida                         | 2,693                | 29,640  | 585    | 8,631  | 1,854  | 16,532  | 5,132        | 54,803  |
| Georgia                         | 703                  | 8,973   | 155    | 2,529  | 443    | 5,157   | 1,301        | 16,659  |
| Hawaii                          | 304                  | 1,844   | 78     | 571    | 96     | 459     | 478          | 2,874   |
| Idaho                           | 128                  | 1,462   | 123    | 1,408  | 171    | 1,714   | 422          | 4,584   |
| Illinois                        | 630                  | 6,430   | 134    | 1,748  | 341    | 4,004   | 1,105        | 12,182  |
| Indiana                         | 344                  | 4,029   | 67     | 1,170  | 298    | 2,963   | 709          | 8,162   |
| Iowa                            | 60                   | 913     | 48     | 926    | 126    | 1,724   | 234          | 3,563   |
| Kansas                          | 111                  | 1,611   | 53     | 1,133  | 215    | 2,362   | 379          | 5,106   |
| Kentucky                        | 180                  | 2,660   | 39     | 766    | 159    | 1,709   | 378          | 5,135   |
| Louisiana                       | 85                   | 1,307   | 50     | 1,189  | 124    | 1,746   | 259          | 4,242   |
| Maine                           | 43                   | 577     | 29     | 440    | 67     | 762     | 139          | 1,779   |
| Maryland                        | 152                  | 2,038   | 114    | 1,335  | 323    | 2,562   | 589          | 5,935   |
| Massachusetts                   | 185                  | 2,159   | 70     | 794    | 260    | 2,718   | 515          | 5,671   |
| Michigan                        | 540                  | 5,325   | 95     | 1,538  | 309    | 3,891   | 944          | 10,754  |
| Minnesota                       | 556                  | 5,492   | 126    | 1,579  | 265    | 3,305   | 947          | 10,376  |
| Mississippi                     | 79                   | 1,140   | 28     | 851    | 123    | 1,403   | 230          | 3,394   |
| Missouri                        | 228                  | 2,849   | 89     | 1,495  | 236    | 2,762   | 553          | 7,106   |
| Montana                         | 130                  | 1,029   | 69     | 878    | 124    | 1,265   | 323          | 3,172   |
| Nebraska                        | 78                   | 906     | 20     | 642    | 77     | 1,241   | 175          | 2,789   |
| Nevada                          | 295                  | 3,264   | 131    | 1,527  | 201    | 1,949   | 627          | 6,740   |
| New Hampshire                   | 99                   | 1,471   | 39     | 514    | 90     | 916     | 228          | 2,901   |
| New Jersey                      | 262                  | 3,081   | 78     | 1,041  | 195    | 2,602   | 535          | 6,724   |
| New Mexico                      | 61                   | 577     | 59     | 781    | 132    | 1,210   | 252          | 2,568   |
| New York                        | 448                  | 5,047   | 134    | 1,930  | 498    | 5,015   | 1,080        | 11,992  |
| North Carolina                  | 452                  | 5,934   | 126    | 2,236  | 360    | 4,610   | 938          | 12,780  |
| North Dakota                    | 109                  | 1,159   | 42     | 743    | 91     | 915     | 242          | 2,817   |
| Ohio                            | 382                  | 5,183   | 90     | 1,704  | 377    | 4,555   | 849          | 11,442  |
| Oklahoma                        | 151                  | 1,965   | 109    | 1,828  | 281    | 2,949   | 541          | 6,742   |
| Oregon                          | 262                  | 2,315   | 206    | 2,168  | 291    | 2,781   | 759          | 7,264   |
| Pennsylvania                    | 423                  | 5,325   | 157    | 2,210  | 308    | 4,035   | 888          | 11,570  |
| Rhode Island                    | 26                   | 313     | 8      | 103    | 38     | 331     | 72           | 747     |
| South Carolina                  | 196                  | 2,728   | 56     | 1,068  | 216    | 2,417   | 468          | 6,213   |
| South Dakota                    | 44                   | 518     | 24     | 559    | 45     | 653     | 113          | 1,730   |
| Tennessee                       | 402                  | 5,521   | 123    | 2,130  | 345    | 3,408   | 870          | 11,059  |
| Texas                           | 1,587                | 22,005  | 565    | 8,357  | 1,351  | 15,072  | 3,503        | 45,434  |
| Utah                            | 463                  | 5,326   | 123    | 1,731  | 118    | 1,652   | 704          | 8,709   |
| Vermont                         | 38                   | 333     | 9      | 103    | 47     | 354     | 94           | 790     |
| Virginia                        | 442                  | 5,008   | 141    | 2,272  | 459    | 4,103   | 1,042        | 11,383  |
| Washington                      | 894                  | 8,015   | 266    | 2,830  | 646    | 5,781   | 1,806        | 16,626  |
| West Virginia                   | 35                   | 401     | 26     | 263    | 41     | 461     | 102          | 1,125   |
| Wisconsin                       | 219                  | 2,666   | 94     | 1,130  | 254    | 2,809   | 567          | 6,605   |
| Wyoming                         | 22                   | 334     | 29     | 385    | 69     | 757     | 120          | 1,476   |
| US Territories                  | 106                  | 1,149   | 34     | 504    | 63     | 614     | 203          | 2,267   |
| International                   | 1,579                | 22,768  | 285    | 4,273  | 667    | 7,946   | 2,531        | 34,987  |
| Total                           | 20,392               | 234,219 | 6,375  | 91,661 | 17,040 | 176,622 | 43,807       | 502,502 |

<sup>a</sup> 193 airmen missing state, one airman missing gender

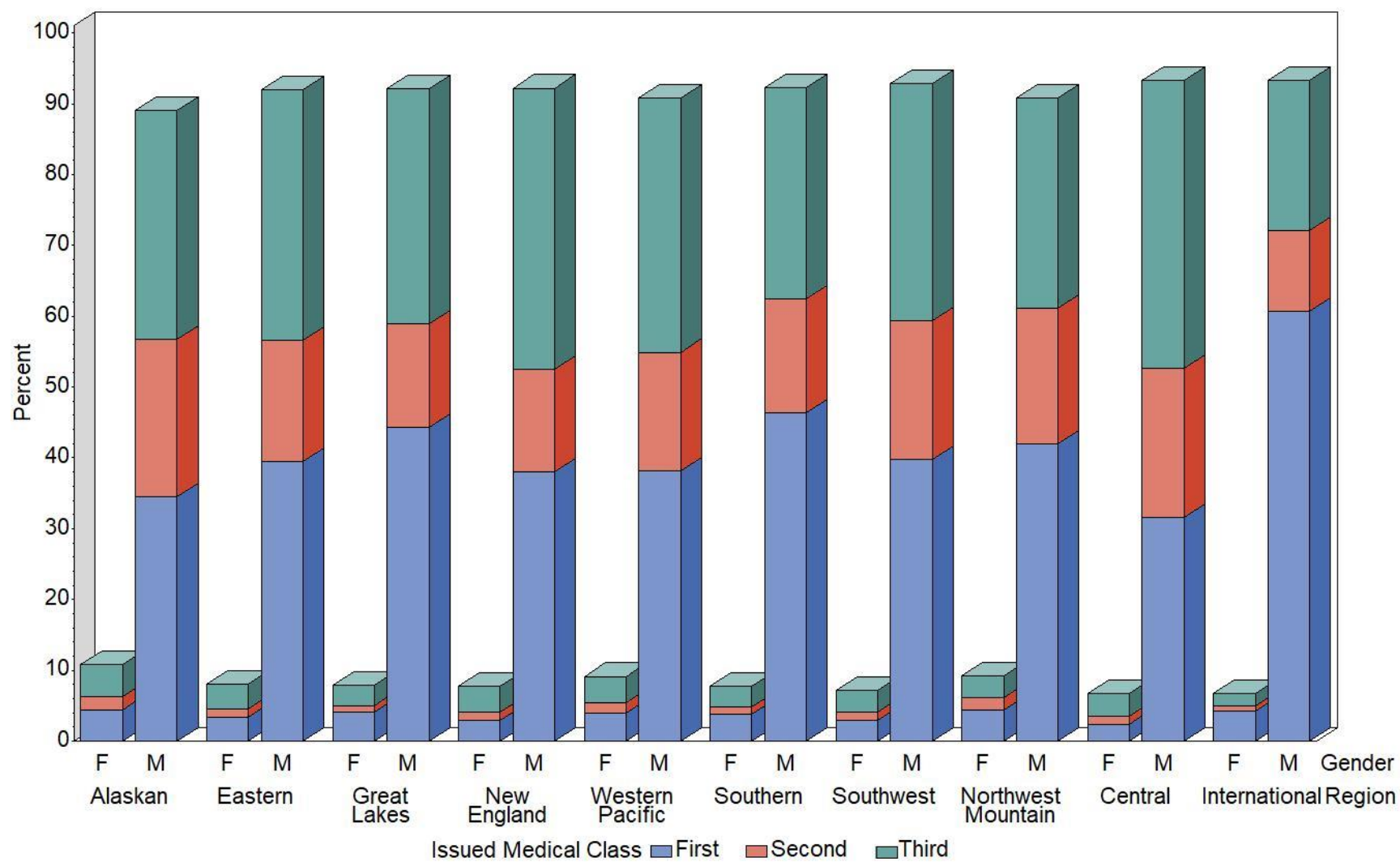


Figure 1. Issued Medical Class by Region and Gender

Table 4. Age (in Years) as of 12/31/2020 of All Active Airmen by Effective Medical Class

| Effective Medical Class | Number of Airmen | Mean Age | Median Age | Standard Deviation |
|-------------------------|------------------|----------|------------|--------------------|
| First                   | 151,020          | 42.8     | 42.9       | 13.9               |
| Second                  | 75,216           | 50.7     | 51.3       | 13.4               |
| Third                   | 320,267          | 39.5     | 35.1       | 16.3               |
| All Classes             | 546,503          | 42.0     | 39.8       | 15.8               |

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

| Age Group in Years<br>as of 12/31/2020 | Effective Medical Class<br>Number<br>(Percent) |                  |                  |
|--|--|------------------|------------------|
|  | First  | Second           | Third            |
| 16-19                                  | 7,366<br>(4.9)                                 | 1,208<br>(1.6)   | 13,964<br>(4.4)  |
| 20-24                                  | 12,306<br>(8.2)                                | 2,162<br>(2.9)   | 55,546<br>(17.3) |
| 25-29                                  | 14,692<br>(9.7)                                | 2,838<br>(3.8)   | 51,107<br>(16.0) |
| 30-34                                  | 15,443<br>(10.2)                               | 3,730<br>(5.0)   | 39,194<br>(12.2) |
| 35-39                                  | 17,407<br>(11.5)                               | 5,057<br>(6.7)   | 33,488<br>(10.5) |
| 40-44                                  | 13,637<br>(9.0)                                | 9,402<br>(12.5)  | 25,071<br>(7.8)  |
| 45-49                                  | 14,682<br>(9.7)                                | 10,364<br>(13.8) | 15,463<br>(4.8)  |
| 50-54                                  | 18,263<br>(12.1)                               | 10,274<br>(13.7) | 17,129<br>(5.4)  |
| 55-59                                  | 19,345<br>(12.8)                               | 10,092<br>(13.4) | 18,559<br>(5.8)  |
| 60-64                                  | 13,983<br>(9.3)                                | 9,227<br>(12.3)  | 18,474<br>(5.8)  |
| 65+                                    | 3,896<br>(2.6)                                 | 10,862<br>(14.4) | 32,272<br>(10.1) |
| Total                                  | 151,020  | 75,216           | 320,267          |

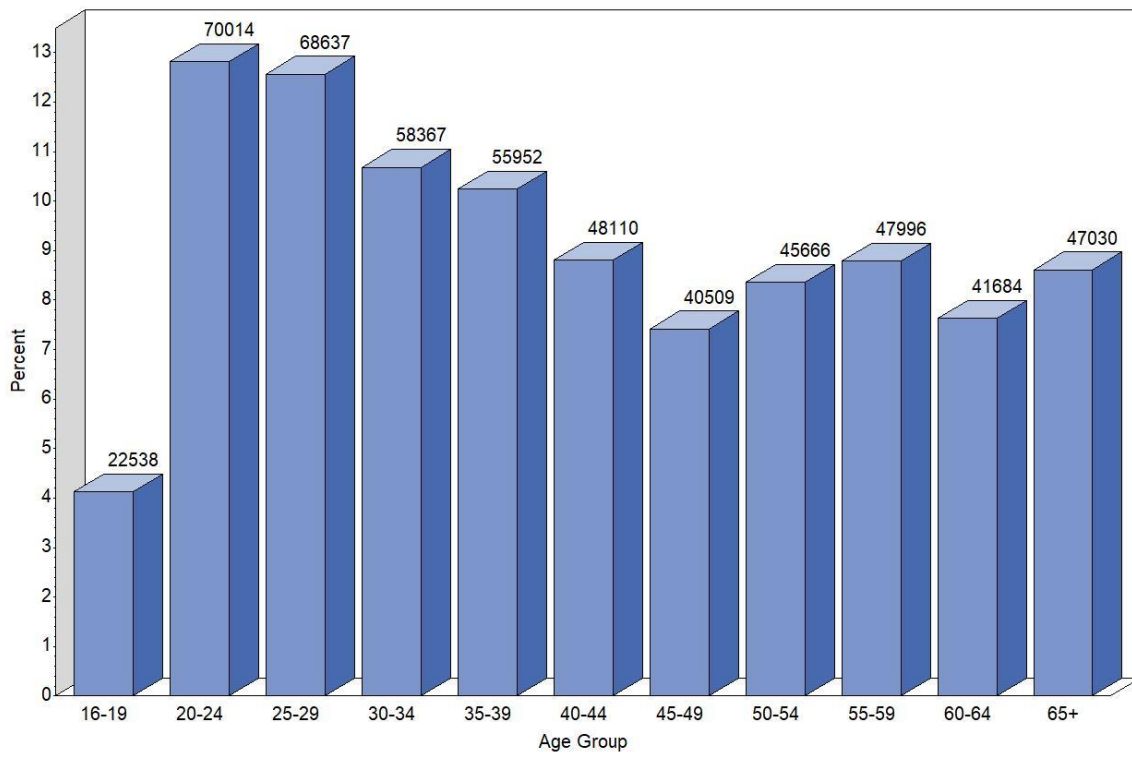


Figure 2. Age Group Distribution as of 12/31/2020 of All Active Airmen

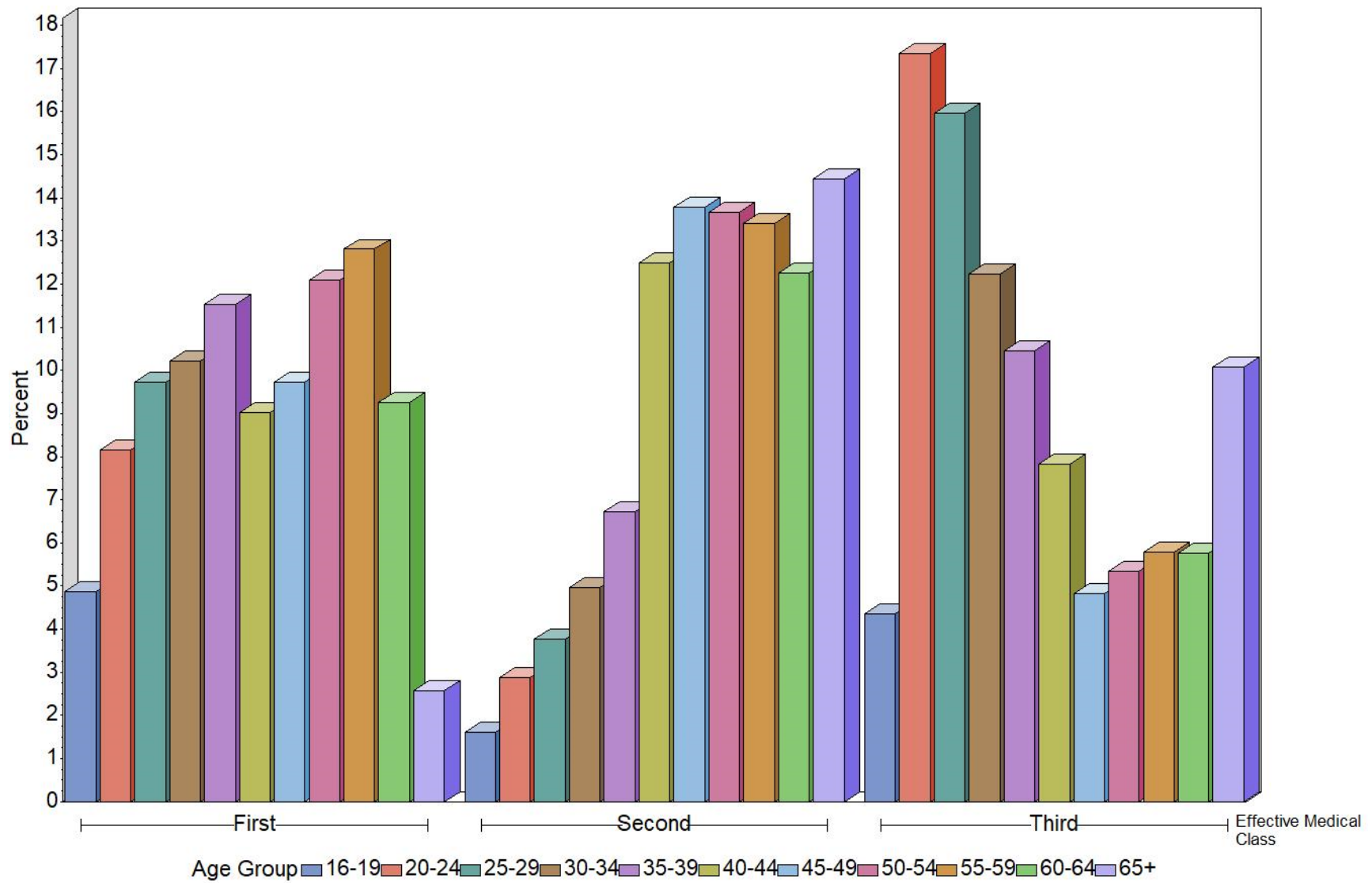


Figure 3. Age Group Distribution as of 12/31/2020 by Effective Medical Class for All Active Airmen

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                | 254,740          | 38.5     | 36.4       | 14.9               |
| Second               | 98,061           | 44.1     | 43.4       | 16.2               |
| Third                | 193,702          | 41.5     | 37.9       | 17.7               |
| All Classes          | 546,503          | 40.6     | 38.1       | 16.3               |

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

| Age Group in Years at Time of Exam | Issued Medical Class<br>Number<br>(Percent) |                  |                  |
|------------------------------------|---|------------------|------------------|
|                                    | First                                       | Second           | Third            |
| 16-19                              | 28,585<br>(11.2)                            | 6,058<br>(6.2)   | 17,900<br>(9.2)  |
| 20-24                              | 34,712<br>(13.6)                            | 8,901<br>(9.1)   | 28,379<br>(14.7) |
| 25-29                              | 30,506<br>(12.0)                            | 8,661<br>(8.8)   | 20,688<br>(10.7) |
| 30-34                              | 26,897<br>(10.6)                            | 9,320<br>(9.5)   | 19,199<br>(9.9)  |
| 35-39                              | 24,136<br>(9.5)                             | 10,785<br>(11.0) | 19,006<br>(9.8)  |
| 40-44                              | 18,353<br>(7.2)                             | 7,854<br>(8.0)   | 9,113<br>(4.7)   |
| 45-49                              | 20,339<br>(8.0)                             | 8,854<br>(9.0)   | 12,244<br>(6.3)  |
| 50-54                              | 22,829<br>(9.0)                             | 9,007<br>(9.2)   | 13,648<br>(7.1)  |
| 55-59                              | 23,623<br>(9.3)                             | 9,186<br>(9.4)   | 15,374<br>(7.9)  |
| 60-64                              | 19,404<br>(7.6)                             | 7,845<br>(8.0)   | 14,596<br>(7.5)  |
| 65+                                | 5,356<br>(2.1)                              | 11,590<br>(11.8) | 23,555<br>(12.2) |
| Total                              | 254,740                                     | 98,061           | 193,702          |

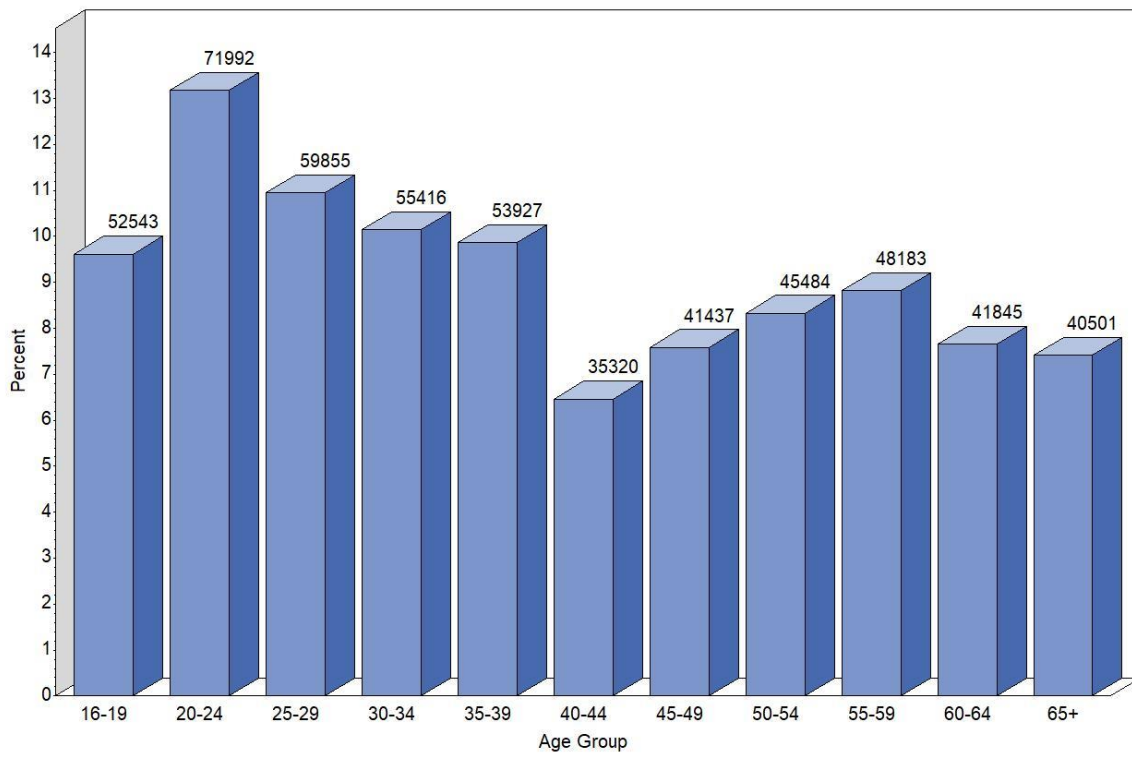


Figure 4. Age Group Distribution of All Active Airmen at Time of Exam

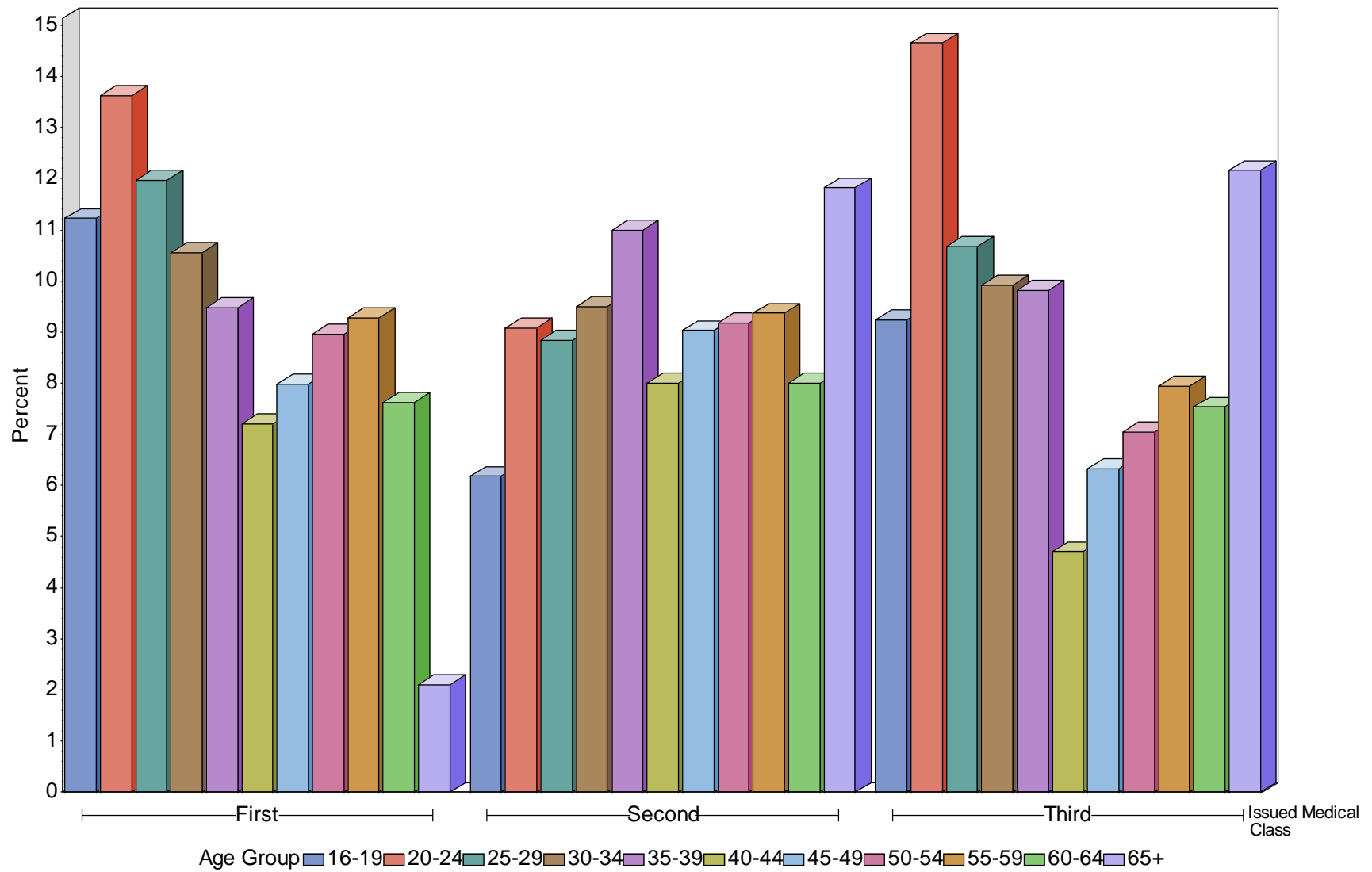


Figure 5. Age Group Distribution by Issued Medical Class for All Active Airmen at Time of Exam



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

| Age Group in Years <sup>a</sup> | Issued Medical Class |         |        |        |        |         |              |         |
|---------------------------------|----------------------|---------|--------|--------|--------|---------|--------------|---------|
|                                 | First                |         | Second |        | Third  |         | Total Airmen |         |
|                                 | Female               | Male    | Female | Male   | Female | Male    | Female       | Male    |
| 16-19                           | 4,216                | 24,369  | 824    | 5,234  | 2,984  | 14,916  | 8,024        | 44,519  |
| 20-24                           | 3,939                | 30,773  | 887    | 8,014  | 3,562  | 24,817  | 8,388        | 63,604  |
| 25-29                           | 3,480                | 27,026  | 879    | 7,781  | 2,382  | 18,306  | 6,741        | 53,113  |
| 30-34                           | 2,423                | 24,474  | 746    | 8,574  | 1,885  | 17,314  | 5,054        | 50,362  |
| 35-39                           | 1,606                | 22,530  | 838    | 9,947  | 1,555  | 17,451  | 3,999        | 49,928  |
| 40-44                           | 1,063                | 17,290  | 489    | 7,365  | 631    | 8,482   | 2,183        | 33,137  |
| 45-49                           | 1,085                | 19,254  | 465    | 8,389  | 755    | 11,489  | 2,305        | 39,132  |
| 50-54                           | 1,109                | 21,720  | 401    | 8,606  | 812    | 12,836  | 2,322        | 43,162  |
| 55-59                           | 885                  | 22,738  | 343    | 8,843  | 886    | 14,488  | 2,114        | 46,069  |
| 60-64                           | 539                  | 18,865  | 250    | 7,595  | 720    | 13,876  | 1,509        | 40,336  |
| 65+                             | 59                   | 5,297   | 255    | 11,335 | 871    | 22,684  | 1,185        | 39,316  |
| Total                           | 20,404               | 234,336 | 6,377  | 91,683 | 17,043 | 176,659 | 43,824       | 502,678 |

<sup>a</sup> One airman missing gender

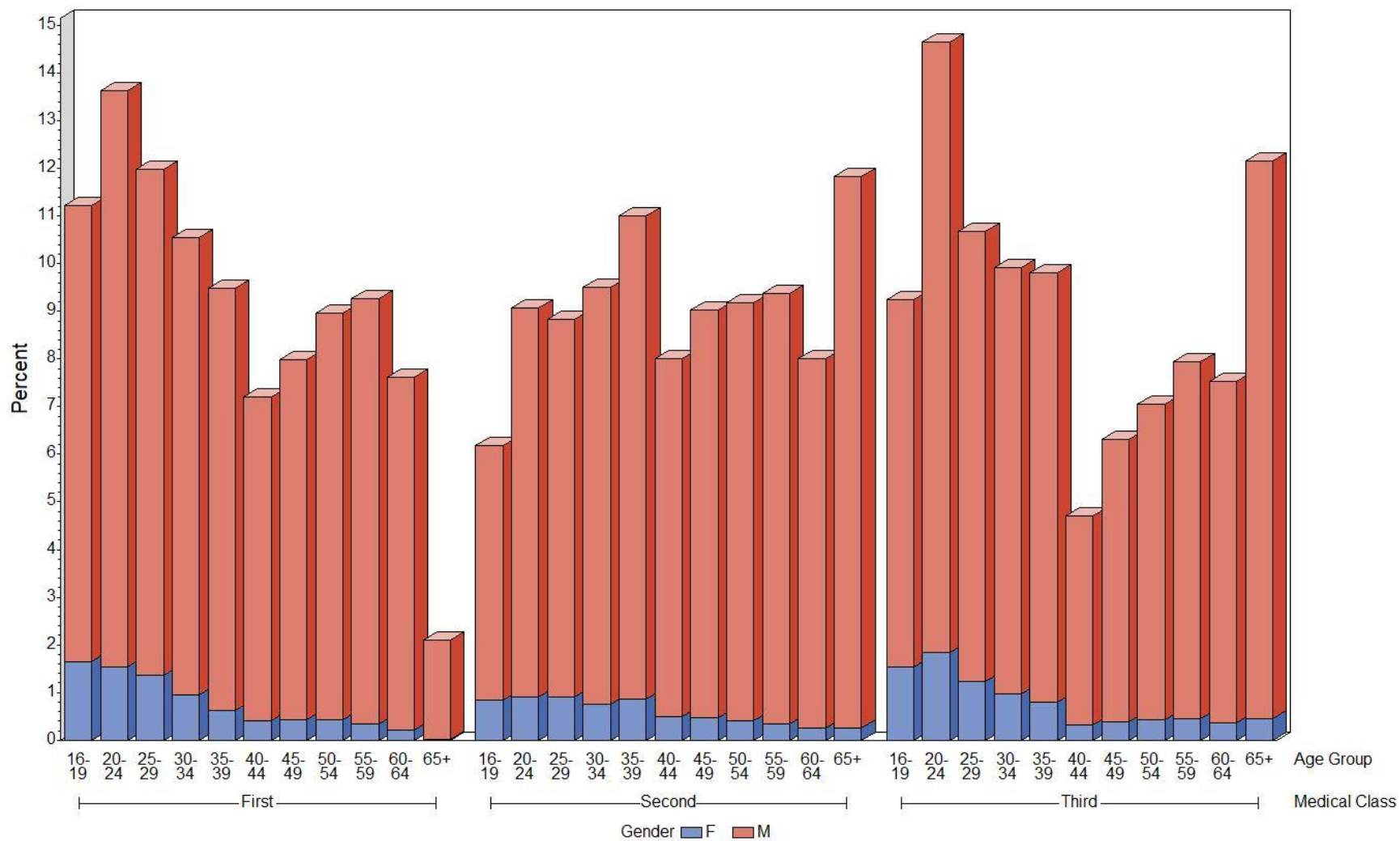


Figure 6. Age Group Distribution at Time of Exam by Gender and Issued Medical Class

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

| Issued Medical Class <sup>a</sup> |         | Number of Airmen | Mean Height in Inches | Median Height in Inches | Standard Deviation in Inches |
|-----------------------------------|---------|------------------|-----------------------|-------------------------|------------------------------|
| First                             | Females | 20,402           | 65.3                  | 65.0                    | 2.6                          |
|                                   | Males   | 234,334          | 70.5                  | 71.0                    | 2.7                          |
| Second                            | Females | 6,377            | 65.3                  | 65.0                    | 2.7                          |
|                                   | Males   | 91,682           | 70.5                  | 71.0                    | 2.7                          |
| Third                             | Females | 17,040           | 65.2                  | 65.0                    | 2.7                          |
|                                   | Males   | 176,654          | 70.5                  | 71.0                    | 2.8                          |
| All Classes                       | Females | 43,819           | 65.3                  | 65.0                    | 2.7                          |
|                                   | Males   | 502,670          | 70.5                  | 71.0                    | 2.7                          |

<sup>a</sup> 13 airmen missing height, one airman missing gender

Table 10. Height by Issued Medical Class and Gender

| Height in Inches <sup>a</sup> | Issued Medical Class |         |        |        |        |         |              |         |
|-------------------------------|----------------------|---------|--------|--------|--------|---------|--------------|---------|
|                               | First                |         | Second |        | Third  |         | Total Airmen |         |
|                               | Female               | Male    | Female | Male   | Female | Male    | Female       | Male    |
| <59                           | 81                   | 130     | 43     | 45     | 126    | 142     | 250          | 317     |
| 59                            | 101                  | 65      | 37     | 23     | 121    | 79      | 259          | 167     |
| 60                            | 412                  | 129     | 133    | 80     | 370    | 166     | 915          | 375     |
| 61                            | 723                  | 102     | 227    | 58     | 631    | 136     | 1,581        | 296     |
| 62                            | 1,481                | 224     | 469    | 100    | 1,358  | 247     | 3,308        | 571     |
| 63                            | 2,141                | 559     | 699    | 231    | 1,876  | 528     | 4,716        | 1,318   |
| 64                            | 3,004                | 1,661   | 923    | 642    | 2,357  | 1,366   | 6,284        | 3,669   |
| 65                            | 2,998                | 3,858   | 873    | 1,343  | 2,468  | 2,909   | 6,339        | 8,110   |
| 66                            | 2,964                | 8,665   | 945    | 3,287  | 2,406  | 6,623   | 6,315        | 18,575  |
| 67                            | 2,492                | 14,756  | 800    | 5,616  | 1,997  | 11,126  | 5,289        | 31,498  |
| 68                            | 1,782                | 22,162  | 504    | 8,623  | 1,431  | 16,344  | 3,717        | 47,129  |
| 69                            | 1,070                | 28,486  | 347    | 11,346 | 936    | 20,679  | 2,353        | 60,511  |
| 70                            | 647                  | 35,288  | 204    | 14,002 | 522    | 26,591  | 1,373        | 75,881  |
| 71                            | 300                  | 31,207  | 91     | 12,487 | 243    | 24,250  | 634          | 67,944  |
| 72                            | 134                  | 33,924  | 52     | 13,573 | 138    | 25,811  | 324          | 73,308  |
| 73                            | 42                   | 20,456  | 15     | 7,943  | 39     | 15,369  | 96           | 43,768  |
| 74                            | 17                   | 16,143  | 10     | 6,079  | 7      | 11,788  | 34           | 34,010  |
| 75                            | 5                    | 8,708   | 3      | 3,163  | 5      | 6,274   | 13           | 18,145  |
| 76                            | 2                    | 4,942   | 0      | 1,855  | 5      | 3,732   | 7            | 10,529  |
| 77                            | 1                    | 1,796   | 1      | 705    | 2      | 1,412   | 4            | 3,913   |
| 78+                           | 5                    | 1,073   | 1      | 481    | 2      | 1,082   | 8            | 2,636   |
| Total                         | 20,402               | 234,334 | 6,377  | 91,682 | 17,040 | 176,654 | 43,819       | 502,670 |

<sup>a</sup> 13 airmen missing height, one airman missing gender

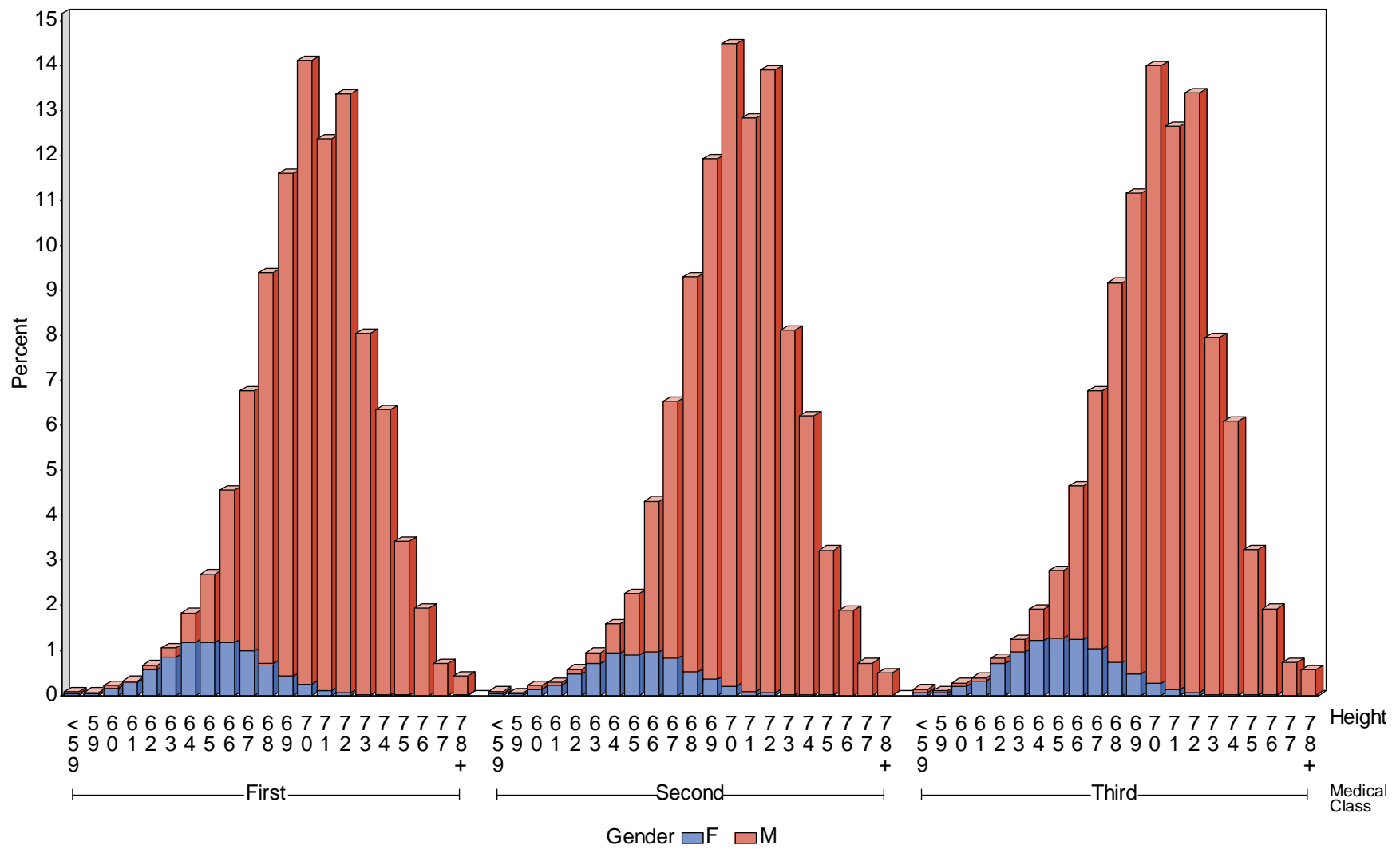


Figure 7. Height (Inches) by Gender and Issued Medical Class

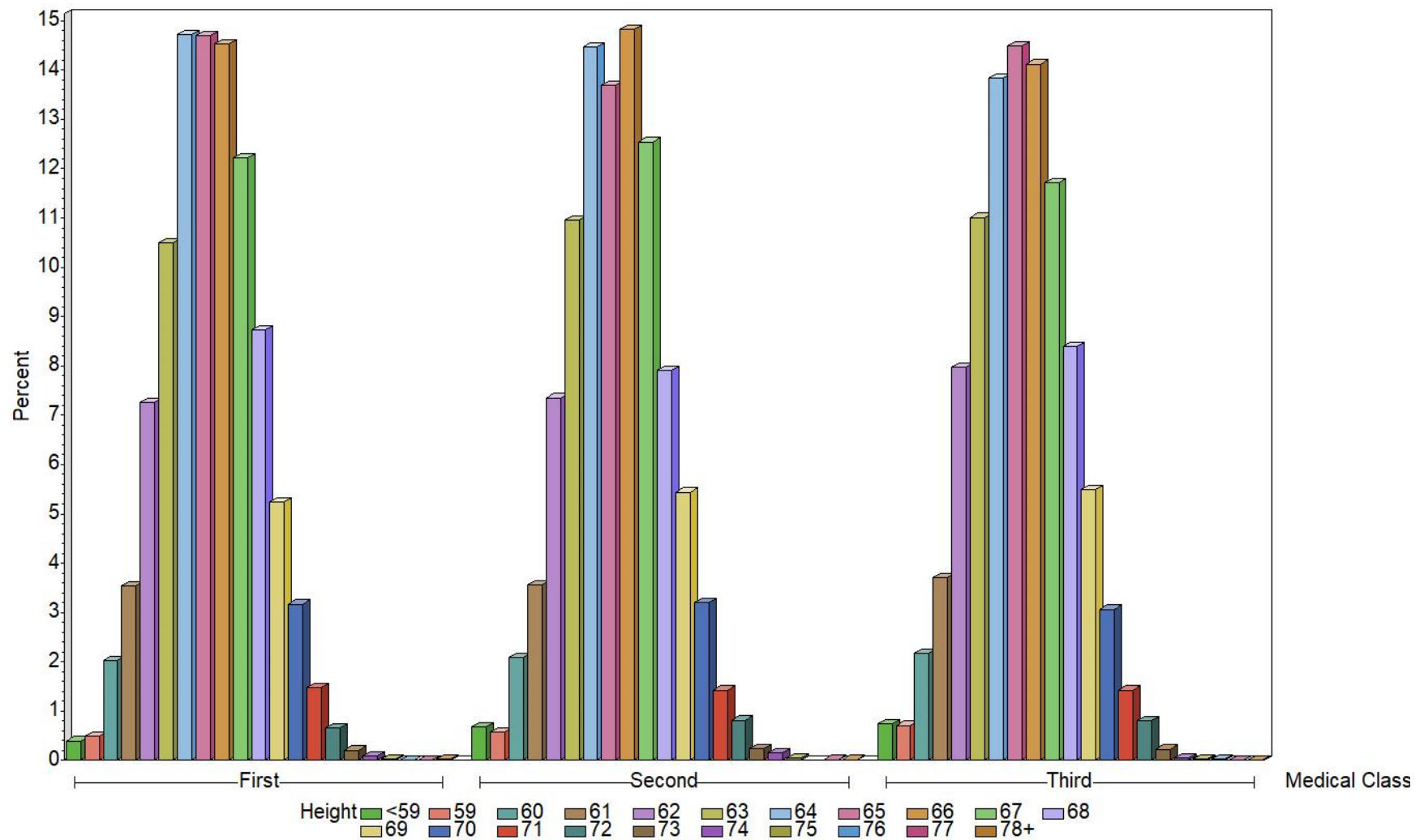


Figure 8. Height (Inches) by Issued Medical Class – Female Airmen Only

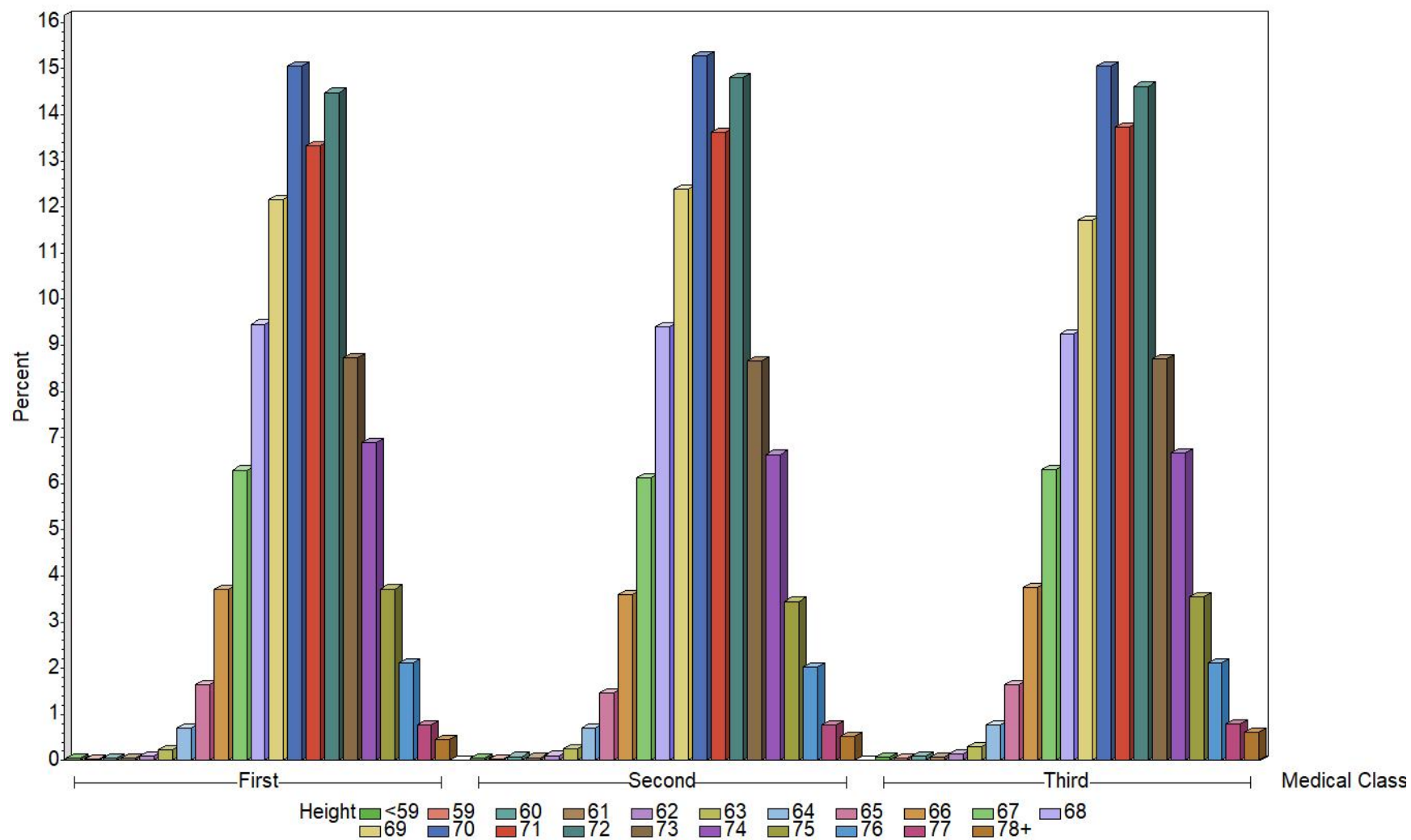


Figure 9. Height (Inches) by Issued Medical Class – Male Airmen Only

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

| Issued Medical Class <sup>a</sup> |         | Number of Airmen | Mean Weight in Pounds | Median Weight in Pounds | Standard Deviation in Pounds |
|-----------------------------------|---------|------------------|-----------------------|-------------------------|------------------------------|
| First                             | Females | 20,398           | 146.2                 | 140.0                   | 29.8                         |
|                                   | Males   | 234,317          | 190.0                 | 186.0                   | 34.8                         |
| Second                            | Females | 6,376            | 151.1                 | 145.0                   | 32.6                         |
|                                   | Males   | 91,672           | 196.1                 | 193.0                   | 35.1                         |
| Third                             | Females | 17,039           | 145.6                 | 140.0                   | 28.9                         |
|                                   | Males   | 176,637          | 191.6                 | 188.0                   | 35.6                         |
| All Classes                       | Females | 43,813           | 146.7                 | 140.0                   | 30.0                         |
|                                   | Males   | 502,626          | 191.8                 | 188.0                   | 35.2                         |

<sup>a</sup> 63 missing weight, one airman missing gender

Table 12. Weight by Issued Medical Class and Gender

| Weight in Pounds <sup>a</sup> | Issued Medical Class |         |        |        |        |         |              |         |
|-------------------------------|----------------------|---------|--------|--------|--------|---------|--------------|---------|
|                               | First                |         | Second |        | Third  |         | Total Airmen |         |
|                               | Female               | Male    | Female | Male   | Female | Male    | Female       | Male    |
| <100                          | 201                  | 79      | 37     | 29     | 179    | 49      | 417          | 157     |
| 100-109                       | 852                  | 274     | 211    | 52     | 665    | 172     | 1,728        | 498     |
| 110-119                       | 2,021                | 1,129   | 508    | 260    | 1,647  | 719     | 4,176        | 2,108   |
| 120-129                       | 3,115                | 3,227   | 901    | 767    | 2,629  | 2,145   | 6,645        | 6,139   |
| 130-139                       | 3,501                | 6,896   | 1,000  | 1,841  | 2,991  | 4,751   | 7,492        | 13,488  |
| 140-149                       | 3,060                | 11,904  | 943    | 3,332  | 2,628  | 8,244   | 6,631        | 23,480  |
| 150-159                       | 2,325                | 18,281  | 744    | 5,528  | 2,003  | 12,952  | 5,072        | 36,761  |
| 160-169                       | 1,614                | 23,954  | 555    | 8,093  | 1,403  | 17,651  | 3,572        | 49,698  |
| 170-179                       | 1,147                | 28,664  | 421    | 10,211 | 965    | 21,343  | 2,533        | 60,218  |
| 180-189                       | 780                  | 29,860  | 292    | 11,544 | 625    | 22,512  | 1,697        | 63,916  |
| 190-199                       | 543                  | 26,848  | 219    | 11,131 | 407    | 20,282  | 1,169        | 58,261  |
| 200-209                       | 387                  | 22,376  | 163    | 9,664  | 260    | 17,167  | 810          | 49,207  |
| 210-219                       | 289                  | 17,710  | 114    | 8,040  | 172    | 13,482  | 575          | 39,232  |
| 220-229                       | 181                  | 13,473  | 78     | 6,396  | 154    | 10,601  | 413          | 30,470  |
| 230-239                       | 123                  | 9,517   | 50     | 4,743  | 106    | 7,492   | 279          | 21,752  |
| 240-249                       | 90                   | 6,641   | 37     | 3,268  | 72     | 5,326   | 199          | 15,235  |
| 250-259                       | 65                   | 4,548   | 38     | 2,211  | 54     | 3,735   | 157          | 10,494  |
| 260-269                       | 36                   | 3,003   | 25     | 1,530  | 36     | 2,601   | 97           | 7,134   |
| 270-279                       | 23                   | 2,087   | 11     | 985    | 16     | 1,799   | 50           | 4,871   |
| 280+                          | 45                   | 3,846   | 29     | 2,047  | 27     | 3,614   | 101          | 9,507   |
| Total                         | 20,398               | 234,317 | 6,376  | 91,672 | 17,039 | 176,637 | 43,813       | 502,626 |

<sup>a</sup> 63 airmen missing weight, one airman missing gender

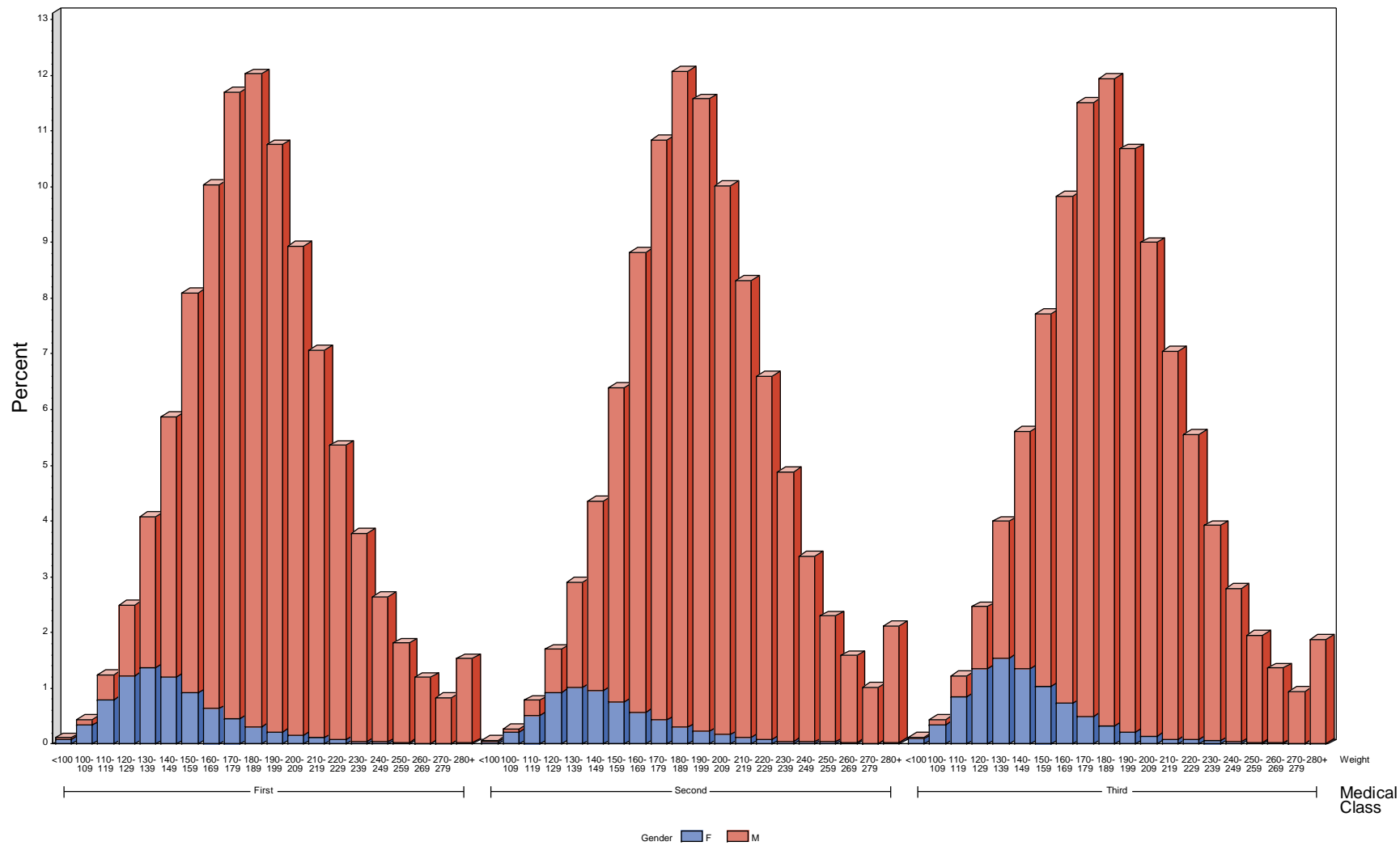


Figure 10. Weight (Pounds) by Gender and Issued Medical Class



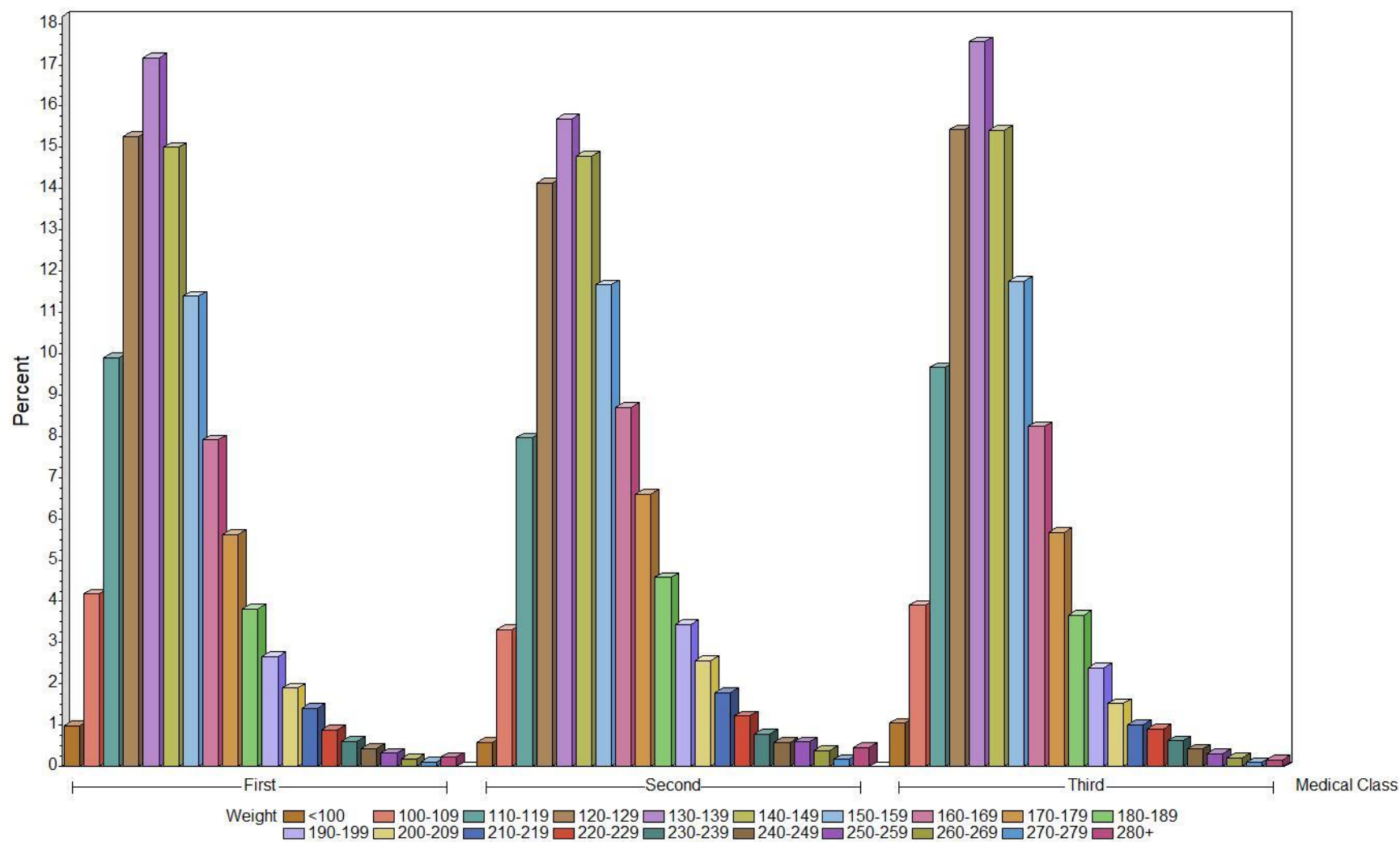


Figure 11. Weight (Pounds) by Issued Medical Class – Female Airmen Only

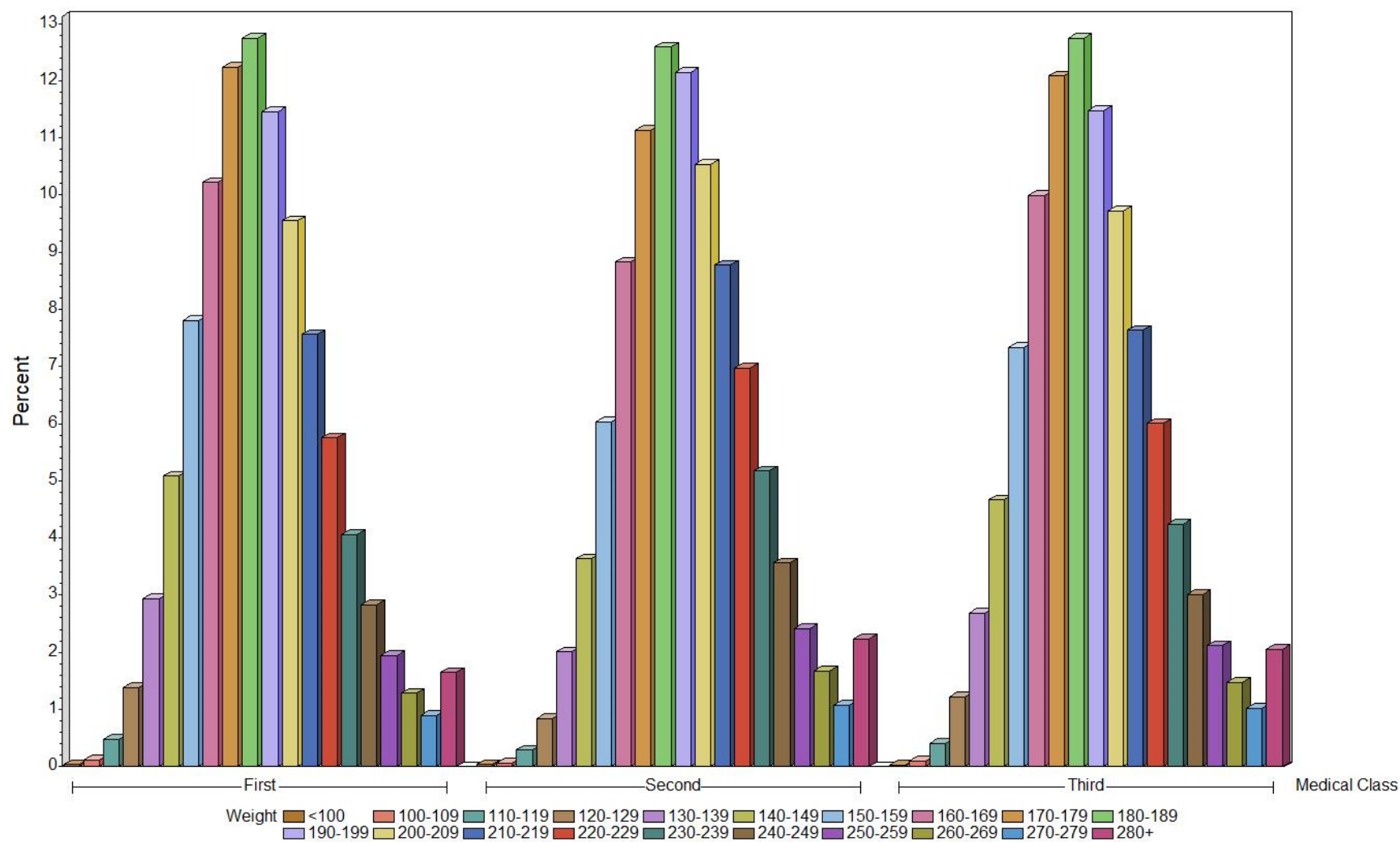


Figure 12. Weight (Pounds) by Issued Medical Class – Male Airmen Only

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

| Issued Medical Class <sup>a</sup> |         | Number of Airmen | Mean BMI in kg/m <sup>2</sup> | Median BMI in kg/m <sup>2</sup> | Standard Deviation in kg/m <sup>2</sup> |
|-----------------------------------|---------|------------------|-------------------------------|---------------------------------|---|
| First                             | Females | 20,397           | 24.1                          | 23.1                            | 4.6                                     |
|                                   | Males   | 234,315          | 26.8                          | 26.4                            | 4.4                                     |
| Second                            | Females | 6,376            | 24.9                          | 23.7                            | 5.0                                     |
|                                   | Males   | 91,671           | 27.7                          | 27.2                            | 4.5                                     |
| Third                             | Females | 17,036           | 24.1                          | 23.1                            | 4.5                                     |
|                                   | Males   | 176,632          | 27.1                          | 26.6                            | 4.6                                     |
| All Classes                       | Females | 43,809           | 24.2                          | 23.2                            | 4.6                                     |
|                                   | Males   | 502,618          | 27.1                          | 26.6                            | 4.5                                     |

Note. BMI = body mass index.

<sup>a</sup> 75 airmen missing BMI, one airman missing gender

Table 14. BMI Category by Issued Medical Class and Gender

| BMI Category <sup>a</sup> | Issued Medical Class |         |        |        |        |         |              |         |
|---------------------------|----------------------|---------|--------|--------|--------|---------|--------------|---------|
|                           | First                |         | Second |        | Third  |         | Total Airmen |         |
|                           | Female               | Male    | Female | Male   | Female | Male    | Female       | Male    |
| Underweight               | 951                  | 3,005   | 211    | 720    | 754    | 2,004   | 1,916        | 5,729   |
| Normal                    | 12,823               | 81,363  | 3,623  | 25,142 | 10,781 | 58,344  | 27,227       | 164,849 |
| Overweight                | 4,522                | 102,585 | 1,636  | 41,520 | 3,866  | 76,721  | 10,024       | 220,826 |
| Obese                     | 2,101                | 47,362  | 906    | 24,289 | 1,635  | 39,563  | 4,642        | 111,214 |
| Total                     | 20,397               | 234,315 | 6,376  | 91,671 | 17,036 | 176,632 | 43,809       | 502,618 |

Note. BMI = body mass index.

<sup>a</sup> 75 airmen missing BMI, one airman missing gender

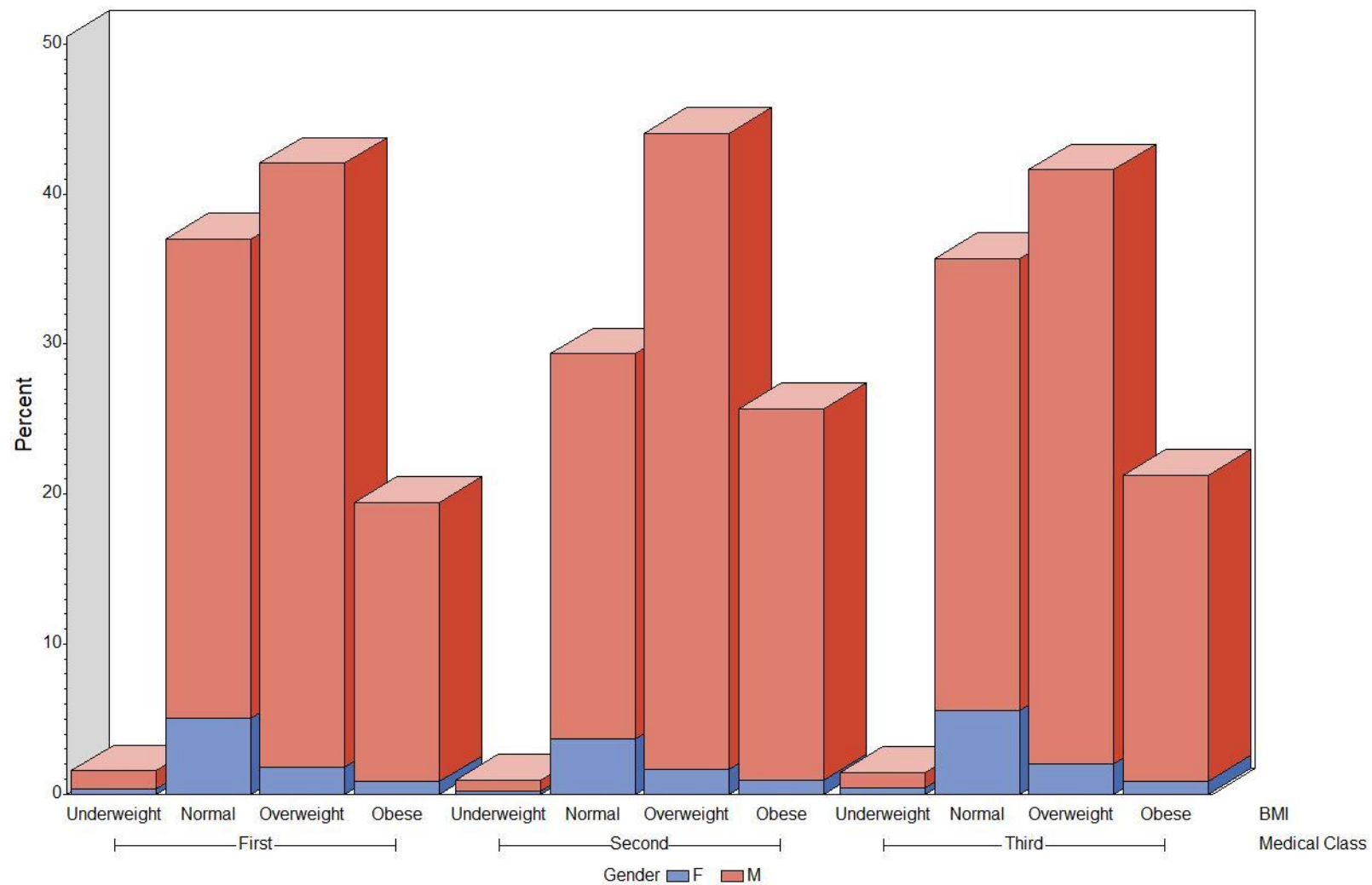


Figure 13. BMI Category by Gender and Issued Medical Class

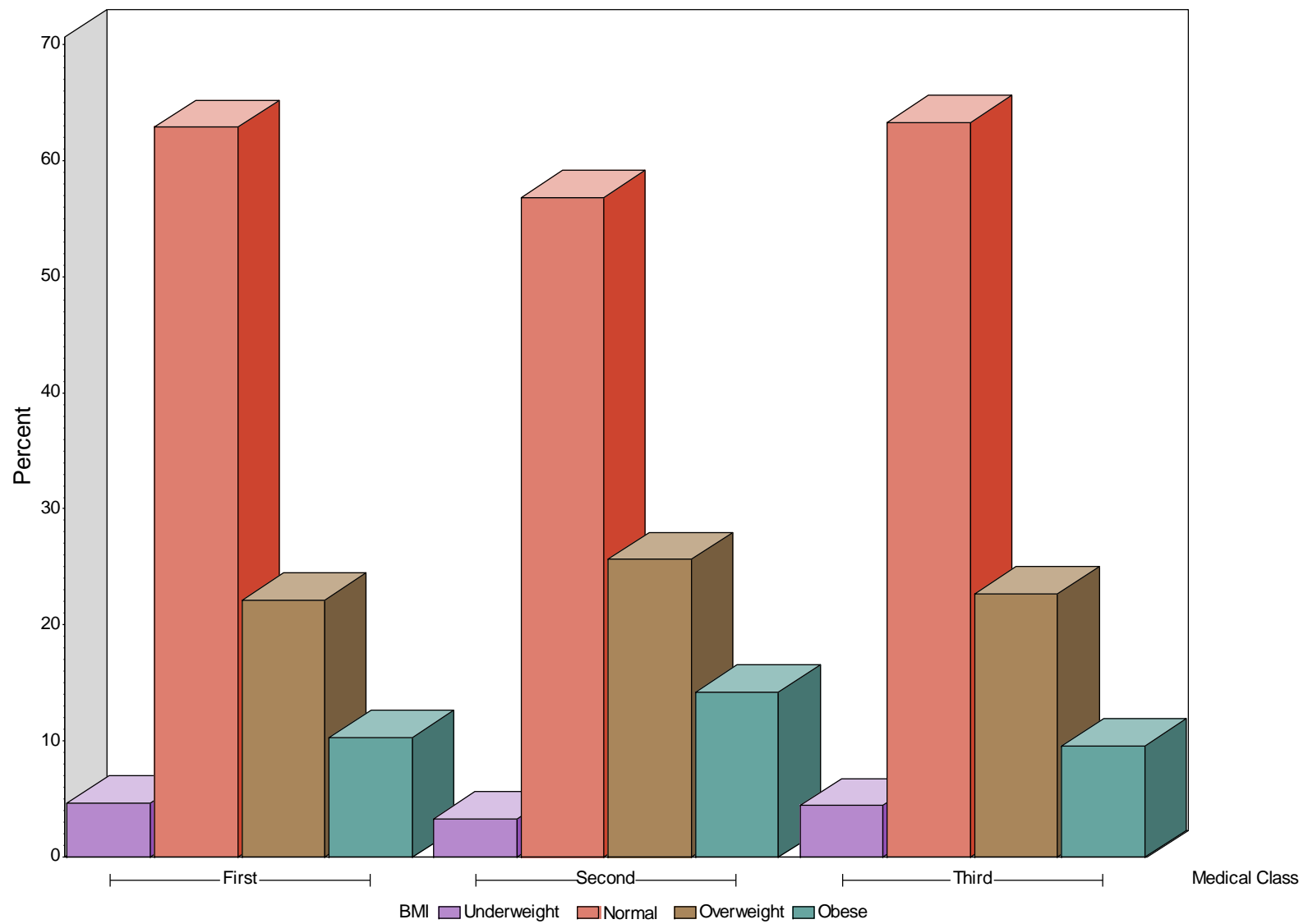


Figure 14. BMI Category by Issued Medical Class – Female Airmen Only

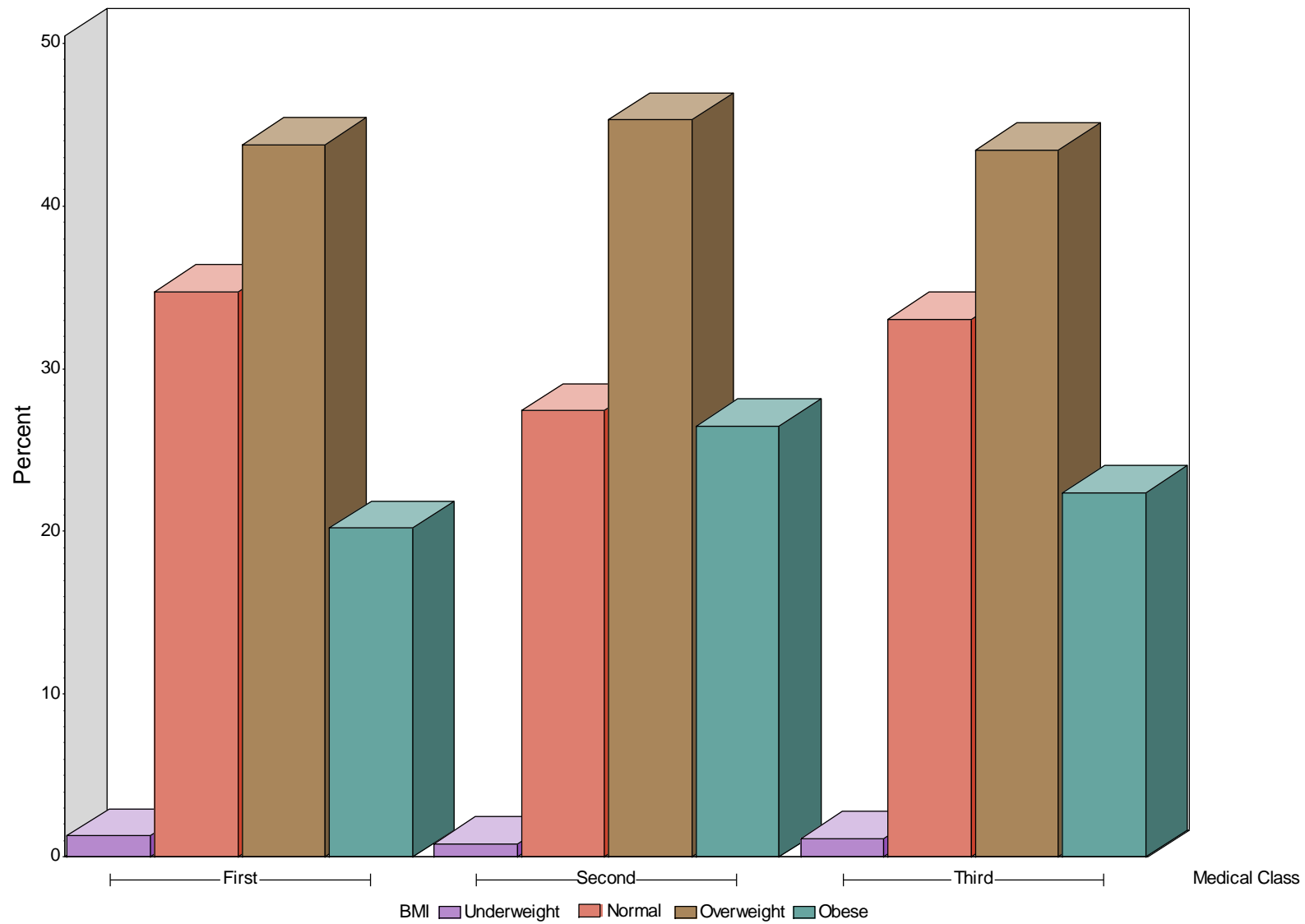


Figure 15. BMI Category by Issued Medical Class – Male Airmen Only

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

|                                       |             | Special Issuance |                   |
|---------------------------------------|-------------|------------------|-------------------|
|                                       |             | Yes<br>(Percent) | No<br>(Percent)   |
| Class Issued                          | First       | 14,028<br>(5.5)  | 240,712<br>(94.5) |
|                                       | Second      | 6,248<br>(6.4)   | 91,813<br>(93.6)  |
|                                       | Third       | 11,251<br>(5.8)  | 182,451<br>(94.2) |
| Gender <sup>a</sup>                   | Female      | 1,139<br>(2.6)   | 42,685<br>(97.4)  |
|                                       | Male        | 30,388<br>(6.0)  | 472,290<br>(94.0) |
| Age at Exam<br>(years)                | 16-19       | 699<br>(1.3)     | 51,844<br>(98.7)  |
|                                       | 20-24       | 866<br>(1.2)     | 71,126<br>(98.8)  |
|                                       | 25-29       | 951<br>(1.6)     | 58,904<br>(98.4)  |
|                                       | 30-34       | 1,212<br>(2.2)   | 54,204<br>(97.8)  |
|                                       | 35-39       | 1,693<br>(3.1)   | 52,234<br>(96.9)  |
|                                       | 40-44       | 1,985<br>(5.6)   | 33,335<br>(94.4)  |
|                                       | 45-49       | 2,873<br>(6.9)   | 38,564<br>(93.1)  |
|                                       | 50-54       | 3,992<br>(8.8)   | 41,492<br>(91.2)  |
|                                       | 55-59       | 5,375<br>(11.2)  | 42,808<br>(88.8)  |
|                                       | 60-64       | 5,349<br>(12.8)  | 36,496<br>(87.2)  |
|                                       | 65+         | 6,532<br>(16.1)  | 33,969<br>(83.9)  |
| BMI (kg/m <sup>2</sup> ) <sup>b</sup> | Underweight | 131<br>(1.7)     | 7,514<br>(98.3)   |
|                                       | Normal      | 6,258<br>(3.3)   | 185,819<br>(96.7) |
|                                       | Overweight  | 13,404<br>(5.8)  | 217,446<br>(94.2) |
|                                       | Obese       | 11,730<br>(10.1) | 104,126<br>(89.9) |
| Total                                 |             | 31,527<br>(5.8)  | 514,976<br>(94.2) |

Note. BMI = body mass index.

<sup>a</sup> One airman missing gender

<sup>b</sup> 75 airmen missing BMI

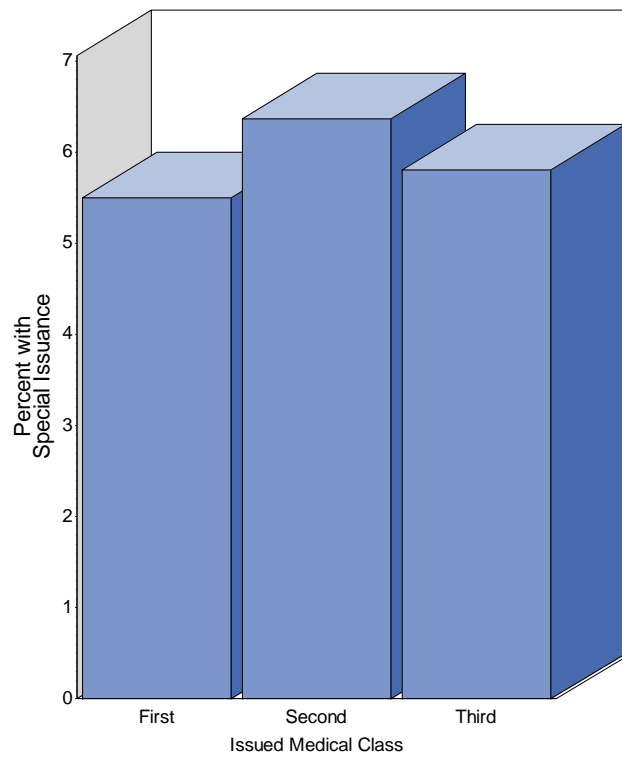


Figure 16. Special Issuance by Issued Medical Class



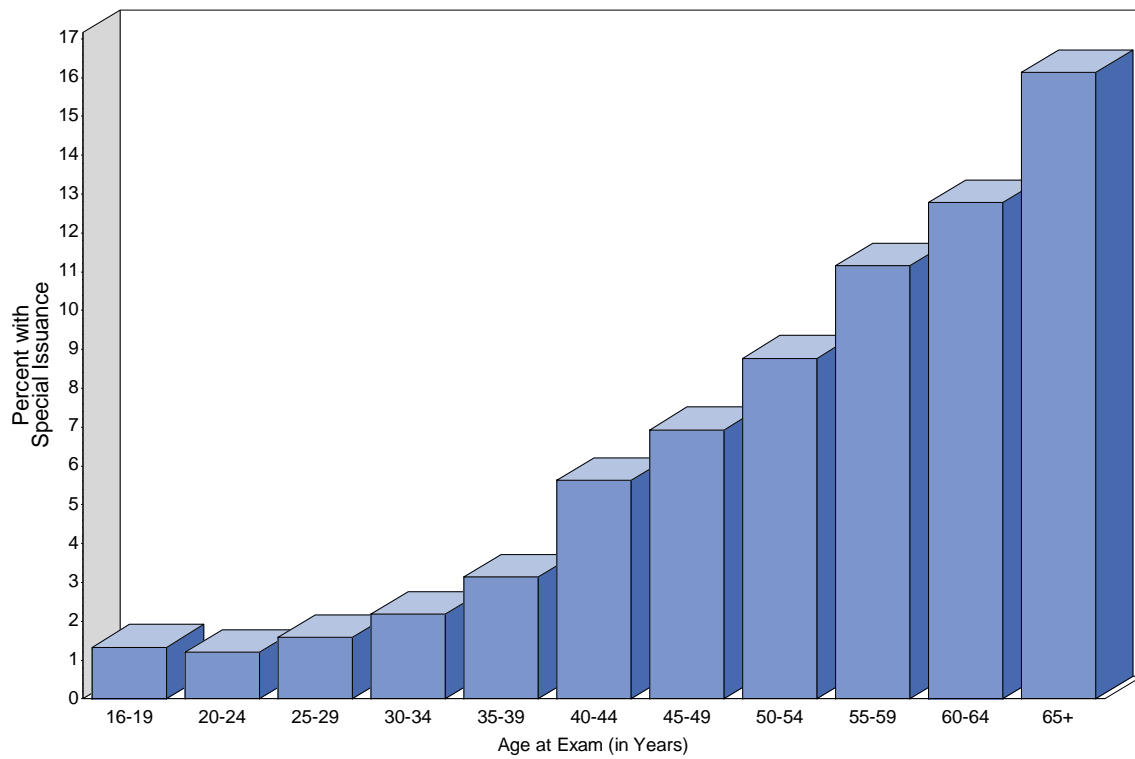


Figure 17. Special Issuance by Age Group at Time of Exam

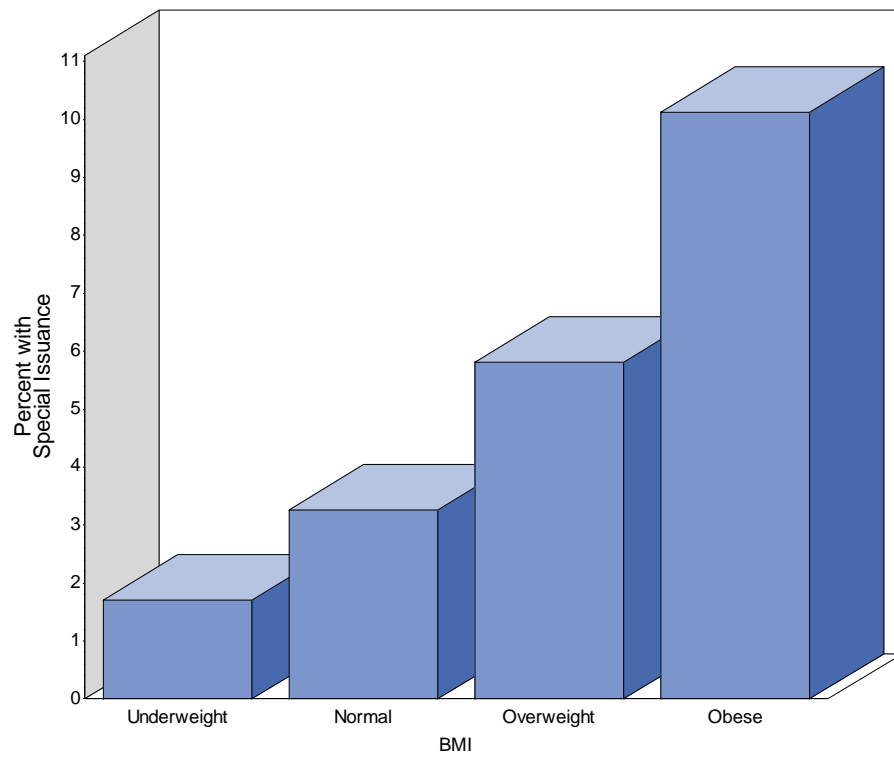


Figure 18. Special Issuance by BMI Category

Table 16. Top 15 Reported Medical Conditions

| Pathology Description   | Number | Percent |
|---|--------|---------|
| Hypertension with medication  | 39,371 | 7.2     |
| Other miscellaneous allergic conditions <sup>a</sup>  | 29,370 | 5.4     |
| Hernias – inguinal, femoral, umbilical, hiatal  | 19,230 | 3.5     |
| Urolithiasis – stones or calculus of kidney, ureter, bladder  | 15,917 | 2.9     |
| Other esophagus, stomach, and duodenal conditions – severe gastritis, esophageal reflux, achalasia, GERD, gastroplasty, dysphagia, dyspepsia, thrombus abdomen aorta <sup>b</sup>   | 15,721 | 2.9     |
| Other lower extremities conditions – operations, fractures, dislocation, knee replacement, knee reconstruction, ACL reconstruction <sup>c</sup>   | 15,639 | 2.9     |
| Male genital system – prostatic, varicocele, hydrocele, TURP, spermatocele, BPH   | 12,673 | 2.3     |
| Other skin conditions – includes acne, abnormal pigmentation, vitiligo, psoriasis, keratosis, neurofibroma (basal cell carcinoma), adenoma, ganglioneuroma, fibroma, fibroadenoma, neuroma, Morton's neuroma, hemangioma <sup>d</sup> | 11,917 | 2.2     |
| Sleep apnea, restless leg syndrome  | 10,883 | 2.0     |
| Asthma  | 10,398 | 1.9     |
| Ruptured intervertebral disk, nucleus pulposus, spinal fusion, laminectomy and spinal stenosis, compression disc, other back surgeries  | 10,192 | 1.9     |
| Hayfever  | 9,764  | 1.8     |
| 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>e</sup>  | 9,460  | 1.7     |
| Other shoulder conditions – operations, trauma, recurrent dislocations, frozen shoulder, rotator cuff surgery, etc.   | 9,427  | 1.7     |
| Other intestinal conditions – diverticulitis, polyposis, appendicitis, appendectomy, colon cancer, rectal cancer, appendix cancer, colon resection, Celiac Disease, gastroenteritis, colectomy, Sprue Disease                         | 8,552  | 1.6     |

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

<sup>a</sup> Excludes hayfever and asthma.

<sup>b</sup> Excludes ulcers, gastrectomy, lap-band staple bypass, gastric bypass, hernias, esophageal varices

<sup>c</sup> 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)

<sup>d</sup> Excludes dermatitis, pilonidal cyst, significant scarring, melanoma, squamous cell carcinoma

<sup>e</sup> Excludes cardiomyopathy, pacemaker, cardiac stents, cardiac angioplasty

Table 17. Medical Conditions by Issued Medical Class

|             |                                      | Issued Medical Class<br>(Percent) |                 |                  | Total            |
|-------------|--------------------------------------|-----------------------------------|-----------------|------------------|------------------|
|             |                                      | First                             | Second          | Third            |                  |
| Vision      | Color vision deficiency <sup>a</sup> | 1,724<br>(0.68)                   | 668<br>(0.68)   | 920<br>(0.47)    | 3312<br>(0.61)   |
|             | Monocular vision                     | 261<br>(0.10)                     | 243<br>(0.25)   | 551<br>(0.28)    | 1,055<br>(0.19)  |
| Transplants | Lung transplant                      | 1<br>(0.00)                       | 1<br>(0.00)     | 2<br>(0.00)      | 4<br>(0.00)      |
|             | Heart transplant                     | 0<br>(0.00)                       | 0<br>(0.00)     | 4<br>(0.00)      | 4<br>(0.00)      |
|             | Liver transplant                     | 11<br>(0.00)                      | 6<br>(0.01)     | 12<br>(0.01)     | 29<br>(0.01)     |
|             | Kidney transplant                    | 53<br>(0.02)                      | 18<br>(0.02)    | 52<br>(0.03)     | 123<br>(0.02)    |
| Cardiac     | Myocardial infarction                | 684<br>(0.27)                     | 315<br>(0.32)   | 777<br>(0.40)    | 1,776<br>(0.32)  |
|             | Coronary angioplasty with a stent    | 999<br>(0.39)                     | 420<br>(0.43)   | 1,236<br>(0.64)  | 2,655<br>(0.49)  |
|             | Coronary angioplasty procedure       | 378<br>(0.15)                     | 169<br>(0.17)   | 592<br>(0.31)    | 1,139<br>(0.21)  |
|             | Coronary artery bypass surgery       | 331<br>(0.13)                     | 148<br>(0.15)   | 484<br>(0.25)    | 963<br>(0.18)    |
|             | Implanted pacemaker                  | 107<br>(0.04)                     | 57<br>(0.06)    | 161<br>(0.08)    | 325<br>(0.06)    |
|             | Aortic valve conditions <sup>b</sup> | 805<br>(0.32)                     | 277<br>(0.28)   | 566<br>(0.29)    | 1,648<br>(0.30)  |
|             | Mitral valve conditions <sup>c</sup> | 804<br>(0.32)                     | 323<br>(0.33)   | 557<br>(0.29)    | 1,684<br>(0.31)  |
|             | Hypertension with medication         | 15,556<br>(6.11)                  | 9,025<br>(9.20) | 14,790<br>(7.64) | 39,371<br>(7.20) |

Table 17. (Cont.) Medical Conditions by Issued Medical Class

|                              |  | Medical Class Issued<br>(Percent) |                 |                 | Total            |
|------------------------------|--|-----------------------------------|-----------------|-----------------|------------------|
|                              |  | First                             | Second          | Third           |                  |
| Alcohol and Drugs            | Alcohol abuse/dependence                 | 2,921<br>(1.15)                   | 911<br>(0.93)   | 1,129<br>(0.58) | 4,961<br>(0.91)  |
|                              | Drug abuse/dependence                    | 1,413<br>(0.55)                   | 481<br>(0.49)   | 637<br>(0.33)   | 2,531<br>(0.46)  |
|                              | Alcohol/Drug case monitored              | 2,050<br>(0.80)                   | 232<br>(0.24)   | 289<br>(0.15)   | 2,571<br>(0.47)  |
|                              | Alcohol-related offense <sup>d</sup>     | 12,099<br>(4.75)                  | 5,902<br>(6.02) | 9,380<br>(4.84) | 27,381<br>(5.01) |
|                              | Drug-related offense/misuse <sup>e</sup> | 948<br>(0.37)                     | 502<br>(0.51)   | 742<br>(0.38)   | 2,192<br>(0.40)  |
| Other conditions of interest | Sleep apnea <sup>f</sup>                 | 4,889<br>(1.92)                   | 2,732<br>(2.79) | 3,523<br>(1.82) | 11,144<br>(2.04) |
|                              | SSRI <sup>g</sup>                        | 398<br>(0.16)                     | 96<br>(0.10)    | 414<br>(0.21)   | 908<br>(0.17)    |
|                              | SSRI special issuance                    | 232<br>(0.09)                     | 25<br>(0.03)    | 132<br>(0.07)   | 389<br>(0.07)    |
|                              | Diabetes <sup>h</sup>                    | 1,940<br>(0.76)                   | 1,266<br>(1.29) | 2,693<br>(1.39) | 5,899<br>(1.08)  |

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

<sup>a</sup> Color vision deficiency at initial screening test

<sup>b</sup> 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.

<sup>c</sup> Includes mitral valve disease, mitral stenosis, mitral regurgitation, mitral insufficiency, mitral valve repair. Does not include valve replacement.

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

<sup>e</sup> Includes drug offenses and positive drug tests other than Drug Industry Program (Failed Drug Testing)

<sup>f</sup> Includes restless leg syndrome

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

<sup>h</sup> Controlled by hypoglycemic drugs or insulin

## Section II. Five-Year Trends in Third-Class Airmen

The demographics of the third-class active airmen have changed drastically in the last five years. Many of these airmen have notified the FAA of their intention to fly under BasicMed (14 CFR 68). BasicMed was enacted to comply with the FAA Extension, Safety, and Security Act of 2016 and provides for the operation of certain small aircraft without a medical certificate. BasicMed became effective May 1, 2017.

Since the inception of BasicMed, there has been a significant reduction in the number of third-class airmen, especially those with SIs and critical pathology codes. 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 five years.

The charts below give the number (percent) of active third-class airmen on December 31 for each year. In almost every instance, the numbers have decreased in the past five years. Table 18 demonstrates that within this timeframe, the number of airmen getting certificated each year in the third-class group declined by more than 20%, and the median age of the group has decreased from 45.3 to 37.9 years. Table 19 displays the percentage decrease in SI holders, starting at 7.7% who possessed an SI in 2016 and decreasing to 5.8% of active third-class airmen by 2020. Finally, Table 20 demonstrates how quickly the number and percentage of active third-class airmen with specific medical conditions have disappeared from FAA Office of Aerospace Medicine surveillance. For many conditions, percentages over the five years had decreased by more than half since before BasicMed was implemented. There was no significant percentage change over the five years in other cases, such as drug and alcohol violations.

Table 18. Age at Exam Summary Statistics of Active Third-Class Airmen by Year

| Year | Number of Active Third Class Airmen | Mean Age (Years) | Median Age (Years) | Standard Deviation |
|------|-------------------------------------|------------------|--------------------|--------------------|
| 2016 | 243,400                             | 44.7             | 45.3               | 18.0               |
| 2017 | 222,499                             | 43.7             | 42.7               | 18.0               |
| 2018 | 205,144                             | 42.4             | 39.4               | 17.8               |
| 2019 | 199,569                             | 41.9             | 38.5               | 17.8               |
| 2020 | 193,702                             | 41.5             | 37.9               | 17.7               |

Table 19. Special Issuance of Active Third-Class Airmen by Year

|     | 2016<br>Number<br>(Percent) | 2017<br>Number<br>(Percent) | 2018<br>Number<br>(Percent) | 2019<br>Number<br>(Percent) | 2020<br>Number<br>(Percent) |
|-----|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Yes | 18,758<br>(7.7)             | 13,810<br>(6.2)             | 11,933<br>(5.8)             | 11,780<br>(5.7)             | 11,251<br>(5.8)             |
| No  | 224,642<br>(92.3)           | 208,689<br>(93.8)           | 193,181<br>(94.2)           | 187,789<br>(94.1)           | 182,451<br>(94.2)           |

Table 20. Medical Conditions of Active Third-Class Airmen by Year

|             |                                      | Third-Class Only            |                             |                             |                             |                             |
|-------------|--------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|             |                                      | 2016<br>Number<br>(Percent) | 2017<br>Number<br>(Percent) | 2018<br>Number<br>(Percent) | 2019<br>Number<br>(Percent) | 2020<br>Number<br>(Percent) |
| Vision      | Color vision deficiency <sup>a</sup> | 5,493<br>(2.25)             | 4,921<br>(2.21)             | 4,384<br>(2.14)             | 1012<br>(0.51)              | 920<br>(0.47)               |
|             | Monocular vision                     | 1,042<br>(0.43)             | 834<br>(0.37)               | 688<br>(0.34)               | 611<br>(0.31)               | 551<br>(0.28)               |
| Transplants | Lung transplant                      | 2<br>(0.00)                 | 2<br>(0.00)                 | 1<br>(0.00)                 | 1<br>(0.00)                 | 2<br>(0.00)                 |
|             | Heart transplant                     | 4<br>(0.00)                 | 5<br>(0.00)                 | 5<br>(0.00)                 | 3<br>(0.00)                 | 4<br>(0.00)                 |
|             | Liver transplant                     | 23<br>(0.01)                | 16<br>(0.01)                | 13<br>(0.01)                | 10<br>(0.01)                | 12<br>(0.01)                |
|             | Kidney transplant                    | 93<br>(0.04)                | 66<br>(0.03)                | 56<br>(0.03)                | 48<br>(0.02)                | 52<br>(0.03)                |
| Cardiac     | Myocardial infarction                | 1,798<br>(0.74)             | 1,185<br>(0.53)             | 947<br>(0.46)               | 884<br>(0.44)               | 777<br>(0.40)               |
|             | Coronary angioplasty with a stent    | 2,829<br>(1.16)             | 1,928<br>(0.87)             | 1,505<br>(0.73)             | 1,418<br>(0.71)             | 1,236<br>(0.64)             |
|             | Coronary angioplasty procedure       | 770<br>(0.32)               | 697<br>(0.31)               | 619<br>(0.30)               | 622<br>(0.31)               | 592<br>(0.31)               |
|             | Coronary artery bypass surgery       | 1,326<br>(0.54)             | 861<br>(0.39)               | 643<br>(0.31)               | 553<br>(0.28)               | 484<br>(0.25)               |
|             | Implanted pacemaker                  | 361<br>(0.15)               | 251<br>(0.11)               | 191<br>(0.09)               | 176<br>(0.09)               | 161<br>(0.08)               |
|             | Aortic valve conditions <sup>b</sup> | 1,225<br>(0.50)             | 867<br>(0.39)               | 687<br>(0.33)               | 650<br>(0.33)               | 566<br>(0.29)               |
|             | Mitral valve conditions <sup>c</sup> | 1,433<br>(0.59)             | 954<br>(0.43)               | 706<br>(0.34)               | 631<br>(0.32)               | 557<br>(0.29)               |
|             | Hypertension with medication         | 31,343<br>(12.88)           | 23,803<br>(10.70)           | 18,646<br>(9.09)            | 16,515<br>(8.28)            | 14,790<br>(7.64)            |



Table 20. (Cont.) Medical Conditions of Active Third-Class Airmen by Year

|                                    |   | Third Class-Only            |                             |                             |                             |                             |
|------------------------------------|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|                                    |   | 2016<br>Number<br>(percent) | 2017<br>Number<br>(percent) | 2018<br>Number<br>(percent) | 2019<br>Number<br>(percent) | 2020<br>Number<br>(percent) |
| Alcohol and<br>Drugs               | Alcohol<br>abuse/dependence                 | 1,614<br>(0.66)             | 1,432<br>(0.64)             | 1,275<br>(0.62)             | 1201<br>(0.60)              | 1,129<br>(0.58)             |
|                                    | Drug<br>abuse/dependence                    | 734<br>(0.30)               | 687<br>(0.31)               | 641<br>(0.31)               | 661<br>(0.33)               | 637<br>(0.33)               |
|                                    | Alcohol/Drug case<br>monitored              | 16<br>(0.01)                | 26<br>(0.01)                | 139<br>(0.07)               | 251<br>(0.13)               | 289<br>(0.15)               |
|                                    | Alcohol-related<br>offense <sup>d</sup>     | 12,061<br>(4.96)            | 11,048<br>(4.97)            | 10,119<br>(4.93)            | 9,814<br>(4.92)             | 9,380<br>(4.84)             |
|                                    | Drug-related<br>offense/misuse <sup>e</sup> | 974<br>(0.40)               | 937<br>(0.42)               | 860<br>(0.42)               | 808<br>(0.40)               | 742<br>(0.38)               |
| Other<br>conditions<br>of interest | Sleep apnea <sup>f</sup>                    | 4,720<br>(1.94)             | 3,728<br>(1.68)             | 3,452<br>(1.68)             | 3,503<br>(1.76)             | 3,523<br>(1.82)             |
|                                    | SSRI <sup>g</sup>                           | 488<br>(0.20)               | 455<br>(0.20)               | 389<br>(0.19)               | 423<br>(0.21)               | 414<br>(0.21)               |
|                                    | SSRI special<br>issuance                    | 115<br>(0.05)               | 111<br>(0.05)               | 102<br>(0.05)               | 136<br>(0.07)               | 132<br>(0.07)               |
|                                    | Diabetes <sup>h</sup>                       | 4,659<br>(1.91)             | 3,360<br>(1.51)             | 2,861<br>(1.39)             | 2,750<br>(1.38)             | 2,693<br>(1.39)             |

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

<sup>a</sup> Color vision deficiency at initial screening test

<sup>b</sup> Includes aortic valvular disease, aortic stenosis, aortic regurgitation, aortic insufficiency, bicuspid aortic valve, also replacement, ruptured aorta or lacerated, aortic bruit

<sup>c</sup> Includes mitral valve disease, mitral stenosis, mitral regurgitation, mitral insufficiency. Does not include valve replacement.

<sup>d</sup> Includes DUI, DWI, public intoxication, wet/reckless, .04-.09 blood alcohol level.

<sup>e</sup> Includes drug offenses and positive drug tests other than Drug Industry Program (Failed Drug Testing)

<sup>f</sup> Includes restless leg syndrome

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

<sup>h</sup> Controlled by hypoglycemic drugs or insulin