

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|---|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 00-0000 | Total, all occupations | 145,612 | 15.5 | 23.6 | 24,054 | 3,432 |
| 11-1300 | Management, business, and financial occupations..... | 14,987 | 9.7 | 17.4 | 1,566 | 261 |
| 11-0000 | Management occupations | 9,115 | 9.1 | 17.2 | 878 | 157 |
| 11-1000 | Top executives..... | 2,317 | 8.4 | 18.7 | 212 | 43 |
| 11-1011 | Chief executives..... | 444 | 6.6 | 18.9 | 31 | 8 |
| 11-1021 | General and operations managers..... | 1,807 | 9.1 | 18.9 | 178 | 34 |
| 11-1031 | Legislators ¹ | 66 | 3.7 | 12.9 | 2 | 1 |
| 11-2000 | Advertising, marketing, promotions, public relations, and sales managers | 646 | 9.0 | 18.3 | 64 | 12 |
| 11-2011 | Advertising and promotions managers | 64 | 11.4 | 18.1 | 8 | 1 |
| 11-2020 | Marketing and sales managers | 525 | 9.1 | 18.5 | 53 | 10 |
| 11-2021 | Marketing managers..... | 188 | 9.1 | 18.5 | 19 | 3 |
| 11-2022 | Sales managers | 337 | 9.1 | 18.5 | 34 | 6 |
| 11-2031 | Public relations managers | 58 | 5.2 | 17.3 | 3 | 1 |
| 11-3000 | Operations specialties managers..... | 1,561 | 8.0 | 17.3 | 135 | 27 |
| 11-3011 | Administrative services managers..... | 268 | 6.9 | 19.4 | 20 | 5 |
| 11-3021 | Computer and information systems managers..... | 280 | 5.5 | 18.2 | 17 | 5 |
| 11-3031 | Financial managers | 528 | 9.7 | 14.3 | 55 | 8 |
| 11-3040 | Human resources managers..... | 157 | 4.8 | 16.9 | 8 | 3 |
| 11-3041 | Compensation and benefits managers..... | 57 | 4.8 | 16.9 | 3 | 1 |
| 11-3042 | Training and development managers | 37 | 4.8 | 16.9 | 2 | 1 |
| 11-3049 | Human resources managers, all other | 62 | 4.8 | 16.9 | 3 | 1 |
| 11-3051 | Industrial production managers | 160 | 8.0 | 19.3 | 13 | 3 |
| 11-3061 | Purchasing managers | 75 | 9.7 | 21.7 | 7 | 2 |
| 11-3071 | Transportation, storage, and distribution managers | 92 | 13.9 | 19.5 | 14 | 2 |
| 11-9000 | Other management occupations | 4,591 | 9.9 | 16.3 | 468 | 75 |
| 11-9010 | Agricultural managers..... | 1,285 | 9.5 | 7.8 | 115 | 10 |
| 11-9011 | Farm, ranch, and other agricultural managers | 220 | 8.6 | 17.2 | 19 | 4 |
| 11-9012 | Farmers and ranchers | 1,065 | 9.7 | 5.9 | 96 | 6 |
| 11-9021 | Construction managers | 431 | 5.2 | 18.1 | 24 | 8 |
| 11-9030 | Education administrators..... | 442 | 10.5 | 24.8 | 50 | 11 |
| 11-9031 | Education administrators, preschool and child care center/program | 58 | 10.5 | 24.8 | 7 | 1 |
| 11-9032 | Education administrators, elementary and secondary school..... | 225 | 10.5 | 24.8 | 25 | 6 |
| 11-9033 | Education administrators, postsecondary | 132 | 10.5 | 24.8 | 15 | 3 |
| 11-9039 | Education administrators, all other..... | 26 | 10.5 | 24.8 | 3 | 1 |
| 11-9041 | Engineering managers ¹ | 190 | 6.2 | 19.9 | 13 | 4 |
| 11-9051 | Food service managers..... | 371 | 14.4 | 16.3 | 57 | 6 |
| 11-9061 | Funeral directors | 30 | 9.0 | 28.5 | 3 | 1 |
| 11-9071 | Gaming managers ¹ | 4 | 18.2 | 18.8 | 1 | (²) |
| 11-9081 | Lodging managers..... | 58 | 13.6 | 16.6 | 9 | 1 |
| 11-9111 | Medical and health services managers | 248 | 10.0 | 19.5 | 28 | 5 |
| 11-9121 | Natural sciences managers ¹ | 42 | 8.9 | 19.2 | 4 | 1 |
| 11-9131 | Postmasters and mail superintendents ¹ | 26 | 9.1 | 18.9 | 2 | (²) |
| 11-9141 | Property, real estate, and community association managers..... | 361 | 13.6 | 18.7 | 53 | 7 |
| 11-9151 | Social and community service managers..... | 134 | 9.1 | 19.2 | 14 | 3 |
| 11-9199 | Managers, all other..... | 969 | 9.7 | 19.5 | 97 | 19 |
| 13-0000 | Business and financial operations occupations..... | 5,873 | 10.7 | 17.7 | 687 | 104 |
| 13-1000 | Business operations specialists | 3,375 | 11.5 | 17.7 | 426 | 60 |
| 13-1011 | Agents and business managers of artists, performers, and athletes | 21 | 8.5 | 19.7 | 2 | (²) |
| 13-1020 | Buyers and purchasing agents..... | 445 | 8.0 | 25.7 | 37 | 11 |
| 13-1021 | Purchasing agents and buyers, farm products ¹ | 16 | 9.0 | 34.1 | 1 | 1 |
| 13-1022 | Wholesale and retail buyers, except farm products | 156 | 11.6 | 26.2 | 19 | 4 |
| 13-1023 | Purchasing agents, except wholesale, retail, and farm products..... | 273 | 5.9 | 24.9 | 17 | 7 |
| 13-1030 | Claims adjusters, appraisers, examiners, and investigators..... | 263 | 9.1 | 12.3 | 26 | 3 |
| 13-1031 | Claims adjusters, examiners, and investigators | 250 | 9.1 | 12.3 | 25 | 3 |
| 13-1032 | Insurance appraisers, auto damage..... | 13 | 9.1 | 12.3 | 1 | (²) |
| 13-1041 | Compliance officers, except agriculture, construction, health and safety, and transportation..... | 177 | 7.7 | 23.5 | 14 | 4 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|---|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 13-1051 | Cost estimators | 198 | 5.3 | 22.4 | 11 | 4 |
| 13-1061 | Emergency management specialists..... | 10 | 16.5 | 22.0 | 2 | (²) |
| 13-1070 | Human resources, training, and labor relations specialists | 663 | 11.7 | 15.7 | 87 | 10 |
| 13-1071 | Employment, recruitment, and placement specialists | 182 | 11.7 | 15.3 | 24 | 3 |
| 13-1072 | Compensation, benefits, and job analysis specialists | 99 | 11.7 | 15.3 | 13 | 2 |
| 13-1073 | Training and development specialists | 216 | 11.7 | 15.3 | 28 | 3 |
| 13-1079 | Human resources, training, and labor relations specialists, all other | 166 | 11.7 | 17.0 | 22 | 3 |
| 13-1081 | Logisticians ¹ | 53 | 10.4 | 17.0 | 6 | 1 |
| 13-1111 | Management analysts | 605 | 10.4 | 13.7 | 69 | 8 |
| 13-1121 | Meeting and convention planners | 43 | 5.7 | 21.8 | 3 | 1 |
| 13-1199 | Business operation specialists, all other | 897 | 16.5 | 17.0 | 168 | 15 |
| 13-2000 | Financial specialists | 2,497 | 9.6 | 17.7 | 261 | 44 |
| 13-2011 | Accountants and auditors | 1,176 | 9.9 | 18.9 | 130 | 22 |
| 13-2021 | Appraisers and assessors of real estate | 102 | 5.7 | 21.4 | 6 | 2 |
| 13-2031 | Budget analysts | 58 | 8.1 | 16.3 | 5 | 1 |
| 13-2041 | Credit analysts | 68 | 3.5 | 15.6 | 2 | 1 |
| 13-2050 | Financial analysts and advisors | 456 | 10.0 | 14.8 | 50 | 7 |
| 13-2051 | Financial analysts | 197 | 11.5 | 14.8 | 25 | 3 |
| 13-2052 | Personal financial advisors | 158 | 7.3 | 13.0 | 13 | 2 |
| 13-2053 | Insurance underwriters | 101 | 11.6 | 17.7 | 12 | 2 |
| 13-2061 | Financial examiners ¹ | 24 | 9.9 | 22.8 | 3 | 1 |
| 13-2070 | Loan counselors and officers | 325 | 11.7 | 16.1 | 40 | 5 |
| 13-2071 | Loan counselors | 34 | 11.7 | 16.1 | 4 | 1 |
| 13-2072 | Loan officers | 291 | 11.7 | 16.1 | 36 | 5 |
| 13-2080 | Tax examiners, collectors, preparers, and revenue agents | 162 | 7.7 | 19.5 | 13 | 3 |
| 13-2081 | Tax examiners, collectors, and revenue agents | 76 | 4.2 | 22.9 | 3 | 2 |
| 13-2082 | Tax preparers | 86 | 10.7 | 16.5 | 10 | 1 |
| 13-2099 | Financial specialists, all other | 127 | 8.9 | 17.6 | 12 | 2 |
| 15-2900 | Professional and related occupations | 28,544 | 9.7 | 19.1 | 3,069 | 547 |
| 15-0000 | Computer and mathematical science occupations | 3,153 | 7.8 | 13.4 | 282 | 42 |
| 15-1000 | Computer specialists | 3,046 | 7.6 | 12.9 | 269 | 39 |
| 15-1011 | Computer and information scientists, research | 22 | 7.2 | 11.3 | 2 | (²) |
| 15-1021 | Computer programmers | 455 | 5.9 | 23.6 | 27 | 11 |
| 15-1030 | Computer software engineers | 800 | 5.5 | 9.9 | 54 | 8 |
| 15-1031 | Computer software engineers, applications | 460 | 5.5 | 9.9 | 32 | 5 |
| 15-1032 | Computer software engineers, systems software .. | 340 | 5.5 | 9.9 | 23 | 3 |
| 15-1041 | Computer support specialists | 518 | 12.9 | 12.3 | 75 | 6 |
| 15-1051 | Computer systems analysts | 487 | 7.2 | 11.3 | 40 | 6 |
| 15-1061 | Database administrators | 104 | 3.7 | 10.3 | 5 | 1 |
| 15-1071 | Network and computer systems administrators | 278 | 7.1 | 11.1 | 24 | 3 |
| 15-1081 | Network systems and data communications analysts | 231 | 10.5 | 11.8 | 31 | 3 |
| 15-1099 | Computer specialists, all other | 149 | 7.2 | 11.3 | 12 | 2 |
| 15-2000 | Mathematical science occupations..... | 107 | 11.3 | 26.7 | 13 | 3 |
| 15-2011 | Actuaries ¹ | 18 | 11.1 | 42.7 | 2 | 1 |
| 15-2021 | Mathematicians ¹ | 3 | 11.1 | 44.0 | (²) | (²) |
| 15-2031 | Operations research analysts | 58 | 11.5 | 21.9 | 7 | 1 |
| 15-2041 | Statisticians ¹ | 19 | 11.1 | 26.3 | 2 | (²) |
| 15-2090 | Miscellaneous mathematical science occupations ¹ ... | 10 | 11.1 | 22.7 | 1 | (²) |
| 15-2091 | Mathematical technicians ¹ | 2 | 11.1 | 22.7 | (²) | (²) |
| 15-2099 | Mathematical scientists, all other ¹ | 9 | 11.1 | 22.7 | 1 | (²) |
| 17-0000 | Architecture and engineering occupations | 2,520 | 6.8 | 22.3 | 182 | 56 |
| 17-1000 | Architects, surveyors, and cartographers | 220 | 4.1 | 18.3 | 10 | 4 |
| 17-1010 | Architects, except naval..... | 154 | 3.4 | 11.4 | 6 | 2 |
| 17-1011 | Architects, except landscape and naval | 129 | 3.4 | 11.4 | 5 | 1 |
| 17-1012 | Landscape architects | 25 | 3.4 | 11.4 | 1 | (²) |
| 17-1020 | Surveyors, cartographers, and photogrammetrists ¹ .. | 67 | 6.0 | 34.2 | 4 | 2 |
| 17-1021 | Cartographers and photogrammetrists ¹ | 11 | 6.0 | 34.2 | 1 | (²) |
| 17-1022 | Surveyors ¹ | 56 | 6.0 | 34.2 | 4 | 2 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|---|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 17-2000 | Engineers | 1,449 | 6.1 | 21.6 | 94 | 31 |
| 17-2011 | Aerospace engineers..... | 76 | 7.3 | 24.8 | 6 | 2 |
| 17-2021 | Agricultural engineers ¹ | 3 | 6.3 | 32.9 | (²) | (²) |
| 17-2031 | Biomedical engineers ¹ | 10 | 5.4 | 17.0 | 1 | (²) |
| 17-2041 | Chemical engineers..... | 31 | 6.9 | 29.9 | 2 | 1 |
| 17-2051 | Civil engineers..... | 237 | 6.0 | 15.9 | 15 | 4 |
| 17-2061 | Computer hardware engineers ¹ | 77 | 5.5 | 16.7 | 4 | 1 |
| 17-2070 | Electrical and electronics engineers..... | 299 | 6.4 | 19.7 | 20 | 6 |
| 17-2071 | Electrical engineers..... | 156 | 6.4 | 19.7 | 11 | 3 |
| 17-2072 | Electronics engineers, except computer..... | 143 | 6.4 | 19.7 | 10 | 3 |
| 17-2081 | Environmental engineers..... | 49 | 5.9 | 17.0 | 3 | 1 |
| 17-2110 | Industrial engineers, including health and safety..... | 203 | 5.4 | 24.2 | 12 | 5 |
| 17-2111 | Health and safety engineers, except mining safety engineers and inspectors..... | 27 | 5.4 | 24.2 | 2 | 1 |
| 17-2112 | Industrial engineers..... | 177 | 5.4 | 24.2 | 10 | 4 |
| 17-2121 | Marine engineers and naval architects ¹ | 7 | 6.0 | 47.2 | (²) | (²) |
| 17-2131 | Materials engineers ¹ | 21 | 6.9 | 26.3 | 2 | 1 |
| 17-2141 | Mechanical engineers..... | 226 | 3.6 | 27.3 | 9 | 6 |
| 17-2151 | Mining and geological engineers, including mining safety engineers ¹ | 5 | 7.9 | 28.9 | (²) | (²) |
| 17-2161 | Nuclear engineers..... | 17 | 6.5 | 29.9 | 1 | 1 |
| 17-2171 | Petroleum engineers ¹ | 16 | 7.9 | 31.8 | 1 | 1 |
| 17-2199 | Engineers, all other..... | 172 | 9.1 | 19.0 | 17 | 3 |
| 17-3000 | Drafters, engineering, and mapping technicians..... | 851 | 8.8 | 24.5 | 78 | 21 |
| 17-3010 | Drafters..... | 254 | 7.9 | 27.7 | 21 | 7 |
| 17-3011 | Architectural and civil drafters..... | 110 | 7.9 | 28.1 | 9 | 3 |
| 17-3012 | Electrical and electronics drafters..... | 38 | 7.9 | 28.1 | 3 | 1 |
| 17-3013 | Mechanical drafters..... | 82 | 7.9 | 28.1 | 7 | 2 |
| 17-3019 | Drafters, all other..... | 24 | 7.9 | 24.1 | 2 | 1 |
| 17-3020 | Engineering technicians, except drafters..... | 532 | 8.8 | 21.5 | 49 | 11 |
| 17-3021 | Aerospace engineering and operations technicians..... | 10 | 8.8 | 20.9 | 1 | (²) |
| 17-3022 | Civil engineering technicians..... | 94 | 8.8 | 20.9 | 9 | 2 |
| 17-3023 | Electrical and electronic engineering technicians..... | 182 | 8.8 | 20.9 | 17 | 4 |
| 17-3024 | Electro-mechanical technicians..... | 19 | 8.8 | 20.9 | 2 | (²) |
| 17-3025 | Environmental engineering technicians..... | 20 | 8.8 | 20.9 | 2 | (²) |
| 17-3026 | Industrial engineering technicians..... | 69 | 8.8 | 20.9 | 6 | 1 |
| 17-3027 | Mechanical engineering technicians..... | 48 | 8.8 | 20.9 | 4 | 1 |
| 17-3029 | Engineering technicians, except drafters, all other..... | 91 | 8.8 | 24.1 | 8 | 2 |
| 17-3031 | Surveying and mapping technicians..... | 65 | 12.2 | 36.4 | 8 | 2 |
| 19-0000 | Life, physical, and social science occupations..... | 1,316 | 8.8 | 24.0 | 125 | 32 |
| 19-1000 | Life scientists..... | 232 | 9.8 | 23.8 | 25 | 6 |
| 19-1010 | Agricultural and food scientists..... | 30 | 4.3 | 17.8 | 1 | 1 |
| 19-1011 | Animal scientists..... | 3 | 4.3 | 17.8 | (²) | (²) |
| 19-1012 | Food scientists and technologists..... | 11 | 4.3 | 17.8 | (²) | (²) |
| 19-1013 | Soil and plant Scientists..... | 17 | 4.3 | 17.8 | 1 | (²) |
| 19-1020 | Biological scientists..... | 77 | 6.3 | 31.3 | 5 | 2 |
| 19-1021 | Biochemists and biophysicists..... | 16 | 6.3 | 31.3 | 1 | 1 |
| 19-1022 | Microbiologists..... | 15 | 6.3 | 31.3 | 1 | (²) |
| 19-1023 | Zoologists and wildlife biologists..... | 16 | 6.3 | 31.3 | 1 | 1 |
| 19-1029 | Biological scientists, all other..... | 29 | 6.3 | 31.3 | 2 | 1 |
| 19-1030 | Conservation scientists and foresters ¹ | 32 | 7.9 | 29.2 | 3 | 1 |
| 19-1031 | Conservation scientists ¹ | 19 | 7.9 | 29.2 | 2 | 1 |
| 19-1032 | Foresters ¹ | 13 | 7.9 | 29.2 | 1 | (²) |
| 19-1040 | Medical scientists..... | 77 | 14.8 | 17.6 | 13 | 1 |
| 19-1041 | Epidemiologists..... | 5 | 14.8 | 17.6 | 1 | (²) |
| 19-1042 | Medical scientists, except epidemiologists..... | 72 | 14.8 | 17.6 | 13 | 1 |
| 19-1099 | Life scientists, all other..... | 15 | 14.8 | 17.6 | 3 | (²) |
| 19-2000 | Physical scientists..... | 250 | 6.7 | 25.2 | 18 | 6 |
| 19-2010 | Astronomers and physicists ¹ | 16 | 7.3 | 32.4 | 1 | 1 |
| 19-2011 | Astronomers ¹ | 1 | 7.3 | 32.4 | (²) | (²) |
| 19-2012 | Physicists ¹ | 15 | 7.3 | 32.4 | 1 | (²) |
| 19-2021 | Atmospheric and space scientists ¹ | 7 | 7.3 | 39.3 | 1 | (²) |
| 19-2030 | Chemists and materials scientists..... | 90 | 5.4 | 32.7 | 5 | 3 |
| 19-2031 | Chemists..... | 82 | 5.4 | 32.7 | 5 | 3 |
| 19-2032 | Materials scientists..... | 8 | 5.4 | 32.7 | (²) | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 19-2040 | Environmental scientists and geoscientists | 109 | 7.9 | 17.8 | 9 | 2 |
| 19-2041 | Environmental scientists and specialists, including health | 73 | 7.9 | 17.8 | 6 | 1 |
| 19-2042 | Geoscientists, except hydrologists and geographers | 28 | 7.9 | 17.8 | 2 | (²) |
| 19-2043 | Hydrologists | 8 | 7.9 | 17.8 | 1 | (²) |
| 19-2099 | Physical scientists, all other | 29 | 6.2 | 22.8 | 2 | 1 |
| 19-3000 | Social scientists and related occupations | 492 | 6.2 | 24.6 | 33 | 12 |
| 19-3011 | Economists ¹ | 13 | 7.6 | 29.0 | 1 | (²) |
| 19-3020 | Market and survey researchers | 212 | 7.6 | 25.9 | 18 | 5 |
| 19-3021 | Market research analysts | 190 | 7.6 | 25.9 | 16 | 5 |
| 19-3022 | Survey researchers | 22 | 7.6 | 25.9 | 2 | 1 |
| 19-3030 | Psychologists | 179 | 3.9 | 21.8 | 8 | 4 |
| 19-3031 | Clinical, counseling, and school psychologists | 167 | 3.9 | 21.8 | 7 | 4 |
| 19-3032 | Industrial-organizational psychologists | 2 | 3.9 | 21.8 | (²) | (²) |
| 19-3039 | Psychologists, all other | 10 | 3.9 | 21.2 | (²) | (²) |
| 19-3041 | Sociologists ¹ | 5 | 7.6 | 35.1 | (²) | (²) |
| 19-3051 | Urban and regional planners ¹ | 32 | 6.0 | 33.4 | 2 | 1 |
| 19-3090 | Miscellaneous social scientists and related workers .. | 51 | 7.3 | 20.9 | 4 | 1 |
| 19-3091 | Anthropologists and archeologists | 5 | 7.3 | 20.2 | (²) | (²) |
| 19-3092 | Geographers | 1 | 7.3 | 20.2 | (²) | (²) |
| 19-3093 | Historians | 3 | 7.3 | 20.2 | (²) | (²) |
| 19-3094 | Political scientists | 5 | 7.3 | 20.2 | (²) | (²) |
| 19-3099 | Social scientists and related workers, all other | 38 | 7.3 | 21.2 | 3 | 1 |
| 19-4000 | Life, physical, and social science technicians | 342 | 13.3 | 22.4 | 49 | 8 |
| 19-4011 | Agricultural and food science technicians | 23 | 3.5 | 19.3 | 1 | (²) |
| 19-4021 | Biological technicians | 64 | 9.5 | 16.9 | 7 | 1 |
| 19-4031 | Chemical technicians ¹ | 62 | 10.2 | 24.9 | 6 | 2 |
| 19-4041 | Geological and petroleum technicians ¹ | 11 | 10.2 | 25.5 | 1 | (²) |
| 19-4051 | Nuclear technicians ¹ | 7 | 10.2 | 26.9 | 1 | (²) |
| 19-4061 | Social science research assistants | 18 | 17.4 | 23.5 | 3 | (²) |
| 19-4090 | Other life, physical, and social science technicians ... | 157 | 17.4 | 23.5 | 30 | 4 |
| 19-4091 | Environmental science and protection technicians, including health | 31 | 17.4 | 23.5 | 6 | 1 |
| 19-4092 | Forensic science technicians | 10 | 17.4 | 23.5 | 2 | (²) |
| 19-4093 | Forest and conservation technicians | 33 | 17.4 | 23.5 | 6 | 1 |
| 19-4099 | Life, physical, and social science technicians, all other | 83 | 17.4 | 23.5 | 16 | 2 |
| 21-0000 | Community and social services occupations | 2,317 | 9.6 | 19.2 | 247 | 44 |
| 21-1000 | Counselors, social workers, and other community and social service specialists | 1,755 | 10.6 | 19.3 | 209 | 34 |
| 21-1010 | Counselors | 601 | 10.6 | 22.7 | 70 | 14 |
| 21-1011 | Substance abuse and behavioral disorder counselors | 76 | 10.6 | 22.8 | 9 | 2 |
| 21-1012 | Educational, vocational, and school counselors | 248 | 10.6 | 22.8 | 28 | 6 |
| 21-1013 | Marriage and family therapists | 24 | 10.6 | 22.8 | 3 | 1 |
| 21-1014 | Mental health counselors | 96 | 10.6 | 22.8 | 12 | 2 |
| 21-1015 | Rehabilitation counselors | 131 | 10.6 | 22.8 | 15 | 3 |
| 21-1019 | Counselors, all other | 25 | 10.6 | 18.7 | 3 | (²) |
| 21-1020 | Social workers | 562 | 8.7 | 17.3 | 54 | 10 |
| 21-1021 | Child, family, and school social workers | 272 | 8.7 | 17.1 | 26 | 5 |
| 21-1022 | Medical and public health social workers | 110 | 8.7 | 17.1 | 11 | 2 |
| 21-1023 | Mental health and substance abuse social workers | 116 | 8.7 | 17.1 | 11 | 2 |
| 21-1029 | Social workers, all other | 64 | 8.7 | 18.7 | 6 | 1 |
| 21-1090 | Miscellaneous community and social service specialists | 592 | 12.5 | 17.8 | 84 | 11 |
| 21-1091 | Health educators | 49 | 12.5 | 17.6 | 7 | 1 |
| 21-1092 | Probation officers and correctional treatment specialists | 93 | 12.5 | 17.6 | 12 | 2 |
| 21-1093 | Social and human service assistants | 352 | 12.5 | 17.6 | 51 | 6 |
| 21-1099 | Community and social service specialists, all other | 98 | 12.5 | 18.7 | 14 | 2 |
| 21-2000 | Religious workers | 562 | 6.4 | 18.8 | 38 | 11 |
| 21-2011 | Clergy | 422 | 4.7 | 20.5 | 21 | 9 |
| 21-2021 | Directors, religious activities and education | 90 | 8.9 | 11.0 | 9 | 1 |
| 21-2099 | Religious workers, all other | 50 | 16.1 | 18.7 | 8 | 1 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|------------------------|----------------------------|--------------|---|------------------|
| | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 23-0000 Legal occupations | 1,220 | 6.1 | 11.6 | 80 | 14 |
| 23-1000 Lawyers, judges, and related workers | 783 | 3.7 | 12.9 | 31 | 10 |
| 23-1011 Lawyers | 735 | 3.7 | 12.9 | 29 | 9 |
| 23-1020 Judges, magistrates, and other judicial workers ¹ | 47 | 3.7 | 12.9 | 2 | 1 |
| 23-1021 Administrative law judges, adjudicators, and hearing officers ¹ | 16 | 3.7 | 12.9 | 1 | (²) |
| 23-1022 Arbitrators, mediators, and conciliators ¹ | 5 | 3.7 | 12.9 | (²) | (²) |
| 23-1023 Judges, magistrate judges, and magistrates ¹ | 27 | 3.7 | 12.9 | 1 | (²) |
| 23-2000 Legal support workers | 437 | 10.4 | 9.4 | 50 | 4 |
| 23-2011 Paralegals and legal assistants | 224 | 8.3 | 8.0 | 21 | 2 |
| 23-2090 Miscellaneous legal support workers | 213 | 13.0 | 10.9 | 29 | 2 |
| 23-2091 Court reporters | 18 | 13.0 | 10.9 | 3 | (²) |
| 23-2092 Law clerks | 51 | 13.0 | 10.9 | 7 | 1 |
| 23-2093 Title examiners, abstractors, and searchers | 61 | 13.0 | 10.9 | 8 | 1 |
| 23-2099 Legal support workers, all other | 83 | 13.0 | 10.9 | 11 | 1 |
| 25-0000 Education, training, and library occupations | 8,698 | 13.5 | 20.9 | 1,288 | 182 |
| 25-1000 Postsecondary teachers | 1,628 | 14.6 | 22.6 | 277 | 37 |
| 25-2000 Primary, secondary, and special education teachers | 4,270 | 10.1 | 22.4 | 469 | 96 |
| 25-2010 Preschool and kindergarten teachers | 601 | 12.5 | 11.9 | 87 | 7 |
| 25-2011 Preschool teachers, except special education | 431 | 12.5 | 11.9 | 63 | 5 |
| 25-2012 Kindergarten teachers, except special education | 171 | 12.5 | 11.9 | 24 | 2 |
| 25-2020 Elementary and middle school teachers | 2,102 | 11.1 | 22.1 | 253 | 46 |
| 25-2021 Elementary school teachers, except special education | 1,457 | 11.1 | 22.1 | 176 | 32 |
| 25-2022 Middle school teachers, except special and vocational education | 628 | 11.1 | 22.1 | 74 | 14 |
| 25-2023 Vocational education teachers, middle school | 17 | 11.1 | 22.1 | 2 | (²) |
| 25-2030 Secondary school teachers | 1,126 | 8.4 | 28.1 | 101 | 32 |
| 25-2031 Secondary school teachers, except special and vocational education | 1,024 | 8.4 | 28.1 | 92 | 29 |
| 25-2032 Vocational education teachers, secondary school | 101 | 8.4 | 28.1 | 9 | 3 |
| 25-2040 Special education teachers | 441 | 5.9 | 23.8 | 29 | 11 |
| 25-2041 Special education teachers, preschool, kindergarten, and elementary school | 205 | 5.9 | 23.8 | 14 | 5 |
| 25-2042 Special education teachers, middle school | 98 | 5.9 | 23.8 | 6 | 2 |
| 25-2043 Special education teachers, secondary school | 138 | 5.9 | 23.8 | 9 | 3 |
| 25-3000 Other teachers and instructors | 977 | 23.8 | 12.3 | 253 | 12 |
| 25-3011 Adult literacy, remedial education, and GED teachers and instructors | 98 | 23.8 | 12.3 | 25 | 1 |
| 25-3021 Self-enrichment education teachers | 253 | 23.8 | 12.3 | 68 | 3 |
| 25-3099 Teachers and instructors, all other | 626 | 23.8 | 12.3 | 160 | 8 |
| 25-4000 Librarians, curators, and archivists | 308 | 10.5 | 28.9 | 34 | 9 |
| 25-4010 Archivists, curators, and museum technicians | 27 | 12.1 | 22.0 | 3 | 1 |
| 25-4011 Archivists | 6 | 12.1 | 22.0 | 1 | (²) |
| 25-4012 Curators | 10 | 12.1 | 22.0 | 1 | (²) |
| 25-4013 Museum technicians and conservators | 10 | 12.1 | 22.0 | 1 | (²) |
| 25-4021 Librarians | 159 | 4.4 | 23.9 | 7 | 4 |
| 25-4031 Library technicians | 122 | 17.8 | 36.9 | 23 | 5 |
| 25-9000 Other education, training, and library occupations | 1,515 | 15.6 | 18.7 | 255 | 28 |
| 25-9011 Audio-visual collections specialists | 9 | 8.6 | 15.2 | 1 | (²) |
| 25-9021 Farm and home management advisors | 16 | 8.6 | 15.2 | 1 | (²) |
| 25-9031 Instructional coordinators | 117 | 8.6 | 15.2 | 11 | 2 |
| 25-9041 Teacher assistants | 1,296 | 16.9 | 19.3 | 234 | 25 |
| 25-9099 Education, training, and library workers, all other | 77 | 8.6 | 15.2 | 7 | 1 |
| 27-0000 Arts, design, entertainment, sports, and media occupations | 2,515 | 14.4 | 18.7 | 389 | 47 |
| 27-1000 Art and design occupations | 780 | 12.9 | 15.6 | 107 | 12 |
| 27-1010 Artists and related workers | 208 | 12.9 | 21.4 | 28 | 4 |
| 27-1011 Art directors | 71 | 12.9 | 21.7 | 10 | 2 |
| 27-1012 Craft artists | 6 | 12.9 | 17.8 | 1 | (²) |
| 27-1013 Fine artists, including painters, sculptors, and illustrators | 29 | 12.9 | 21.7 | 4 | 1 |
| 27-1014 Multi-media artists and animators | 94 | 12.9 | 21.7 | 13 | 2 |
| 27-1019 Artists and related workers, all other | 9 | 12.9 | 17.8 | 1 | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|------------------------|----------------------------|--------------|---|------------------|
| | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 27-1020 Designers | 572 | 12.9 | 13.5 | 79 | 8 |
| 27-1021 Commercial and industrial designers | 49 | 12.9 | 13.4 | 7 | 1 |
| 27-1022 Fashion designers | 17 | 12.9 | 13.4 | 2 | (²) |
| 27-1023 Floral designers | 98 | 12.9 | 13.4 | 13 | 1 |
| 27-1024 Graphic designers | 228 | 12.9 | 13.4 | 32 | 3 |
| 27-1025 Interior designers | 65 | 12.9 | 13.4 | 9 | 1 |
| 27-1026 Merchandise displayers and window trimmers | 86 | 12.9 | 13.4 | 12 | 1 |
| 27-1027 Set and exhibit designers | 13 | 12.9 | 13.4 | 2 | (²) |
| 27-1029 Designers, all other | 16 | 12.9 | 17.8 | 2 | (²) |
| 27-2000 Entertainers and performers, sports and related occupations | 732 | 19.7 | 20.1 | 157 | 15 |
| 27-2010 Actors, producers, and directors | 157 | 11.3 | 13.9 | 19 | 2 |
| 27-2011 Actors | 74 | 12.2 | 12.7 | 10 | 1 |
| 27-2012 Producers and directors | 83 | 10.6 | 15.0 | 10 | 1 |
| 27-2020 Athletes, coaches, umpires, and related workers | 212 | 30.1 | 19.2 | 70 | 4 |
| 27-2021 Athletes and sports competitors | 17 | 30.1 | 19.2 | 6 | (²) |
| 27-2022 Coaches and scouts | 178 | 30.1 | 19.2 | 59 | 3 |
| 27-2023 Umpires, referees, and other sports officials | 16 | 30.1 | 19.2 | 5 | (²) |
| 27-2030 Dancers and choreographers | 38 | 17.7 | 61.5 | 7 | 2 |
| 27-2031 Dancers | 19 | 17.7 | 61.5 | 4 | 1 |
| 27-2032 Choreographers | 19 | 17.7 | 61.5 | 4 | 1 |
| 27-2040 Musicians, singers, and related workers | 249 | 16.9 | 21.0 | 45 | 5 |
| 27-2041 Music directors and composers | 60 | 16.9 | 21.0 | 11 | 1 |
| 27-2042 Musicians and singers | 189 | 16.9 | 21.0 | 34 | 4 |
| 27-2099 Entertainers and performers, sports and related workers, all other | 76 | 17.8 | 12.2 | 15 | 1 |
| 27-3000 Media and communication occupations | 710 | 11.2 | 19.4 | 86 | 14 |
| 27-3010 Announcers | 69 | 14.6 | 25.3 | 10 | 2 |
| 27-3011 Radio and television announcers | 57 | 14.6 | 25.3 | 8 | 1 |
| 27-3012 Public address system and other announcers | 12 | 14.6 | 25.3 | 2 | (²) |
| 27-3020 News analysts, reporters and correspondents | 64 | 7.3 | 24.2 | 5 | 2 |
| 27-3021 Broadcast news analysts | 8 | 7.3 | 24.2 | 1 | (²) |
| 27-3022 Reporters and correspondents | 56 | 7.3 | 24.2 | 4 | 1 |
| 27-3031 Public relations specialists | 188 | 16.1 | 14.4 | 34 | 3 |
| 27-3040 Writers and editors | 320 | 8.4 | 21.8 | 29 | 7 |
| 27-3041 Editors | 127 | 10.1 | 24.2 | 14 | 3 |
| 27-3042 Technical writers | 50 | 7.2 | 28.8 | 4 | 1 |
| 27-3043 Writers and authors | 142 | 7.4 | 17.2 | 11 | 2 |
| 27-3090 Miscellaneous media and communications workers .. | 70 | 10.9 | 12.1 | 8 | 1 |
| 27-3091 Interpreters and translators | 31 | 10.9 | 12.1 | 4 | (²) |
| 27-3099 Media and communication workers, all other | 39 | 10.9 | 12.1 | 5 | (²) |
| 27-4000 Media and communication equipment occupations | 293 | 12.6 | 21.9 | 39 | 6 |
| 27-4010 Broadcast and sound engineering technicians and radio operators | 95 | 9.2 | 24.5 | 9 | 2 |
| 27-4011 Audio and video equipment technicians | 46 | 9.2 | 24.5 | 5 | 1 |
| 27-4012 Broadcast technicians | 34 | 9.2 | 24.5 | 3 | 1 |
| 27-4013 Radio operators | 2 | 9.2 | 24.5 | (²) | (²) |
| 27-4014 Sound engineering technicians | 13 | 9.2 | 24.5 | 1 | (²) |
| 27-4021 Photographers | 129 | 15.5 | 20.4 | 21 | 3 |
| 27-4030 Television, video, and motion picture camera operators and editors | 49 | 11.2 | 21.2 | 6 | 1 |
| 27-4031 Camera operators, television, video, and motion picture | 28 | 11.2 | 21.2 | 3 | 1 |
| 27-4032 Film and video editors | 20 | 11.2 | 21.2 | 2 | (²) |
| 27-4099 Media and communication equipment workers, all other ¹ | 19 | 13.5 | 21.3 | 3 | (²) |
| 29-0000 Healthcare practitioners and technical occupations | 6,805 | 6.2 | 19.0 | 476 | 129 |
| 29-1000 Health diagnosing and treating practitioners | 4,190 | 5.3 | 19.6 | 253 | 82 |
| 29-1011 Chiropractors ¹ | 53 | 4.3 | 18.9 | 3 | 1 |
| 29-1020 Dentists ¹ | 150 | 4.0 | 16.8 | 6 | 3 |
| 29-1021 Dentists, general ¹ | 128 | 4.0 | 16.8 | 5 | 2 |
| 29-1022 Oral and maxillofacial surgeons ¹ | 6 | 4.0 | 16.8 | (²) | (²) |
| 29-1023 Orthodontists ¹ | 10 | 4.0 | 16.8 | (²) | (²) |
| 29-1024 Prosthodontists ¹ | 1 | 4.0 | 16.8 | (²) | (²) |
| 29-1029 Dentists, all other specialists ¹ | 5 | 4.0 | 16.8 | (²) | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|---|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 29-1031 | Dietitians and nutritionists | 50 | 6.6 | 26.1 | 4 | 1 |
| 29-1041 | Optometrists ¹ | 34 | 4.0 | 27.7 | 1 | 1 |
| 29-1051 | Pharmacists..... | 230 | 4.0 | 19.4 | 10 | 4 |
| 29-1060 | Physicians and surgeons | 567 | 4.3 | 13.4 | 27 | 8 |
| 29-1071 | Physician assistants | 62 | 9.3 | 15.4 | 7 | 1 |
| 29-1081 | Podiatrists ¹ | 10 | 4.3 | 24.3 | (²) | (²) |
| 29-1111 | Registered nurses | 2,394 | 5.8 | 20.9 | 159 | 50 |
| 29-1120 | Therapists..... | 509 | 4.0 | 19.5 | 23 | 10 |
| 29-1121 | Audiologists ¹ | 10 | 3.2 | 24.2 | (²) | (²) |
| 29-1122 | Occupational therapists..... | 92 | 3.4 | 13.5 | 4 | 1 |
| 29-1123 | Physical therapists | 155 | 4.0 | 9.8 | 7 | 2 |
| 29-1124 | Radiation therapists ¹ | 15 | 3.2 | 22.8 | 1 | (²) |
| 29-1125 | Recreational therapists..... | 24 | 10.1 | 23.9 | 2 | 1 |
| 29-1126 | Respiratory therapists ¹ | 94 | 4.0 | 32.9 | 4 | 3 |
| 29-1127 | Speech-language pathologists ¹ | 96 | 3.2 | 24.9 | 3 | 2 |
| 29-1129 | Therapists, all other | 24 | 5.1 | 21.7 | 1 | 1 |
| 29-1131 | Veterinarians | 61 | 10.2 | 24.1 | 7 | 1 |
| 29-1199 | Health diagnosing and treating practitioners, all other ¹ | 72 | 5.9 | 21.7 | 5 | 2 |
| 29-2000 | Health technologists and technicians | 2,494 | 7.7 | 17.9 | 214 | 45 |
| 29-2010 | Clinical laboratory technologists and technicians | 302 | 6.2 | 27.0 | 21 | 8 |
| 29-2011 | Medical and clinical laboratory technologists | 156 | 6.2 | 27.0 | 11 | 4 |
| 29-2012 | Medical and clinical laboratory technicians | 147 | 6.2 | 27.0 | 10 | 4 |
| 29-2021 | Dental hygienists | 158 | 5.5 | 8.5 | 11 | 1 |
| 29-2030 | Diagnostic related technologists and technicians..... | 287 | 6.3 | 18.7 | 20 | 5 |
| 29-2031 | Cardiovascular technologists and technicians | 45 | 6.3 | 18.7 | 3 | 1 |
| 29-2032 | Diagnostic medical sonographers | 42 | 6.3 | 18.7 | 3 | 1 |
| 29-2033 | Nuclear medicine technologists..... | 18 | 6.3 | 18.7 | 1 | (²) |
| 29-2034 | Radiologic technologists and technicians..... | 182 | 6.3 | 18.7 | 13 | 3 |
| 29-2041 | Emergency medical technicians and paramedics | 192 | 7.2 | 11.5 | 16 | 2 |
| 29-2050 | Health diagnosing and treating practitioner support technicians | 514 | 9.5 | 13.0 | 55 | 7 |
| 29-2051 | Dietetic technicians | 25 | 9.5 | 13.0 | 3 | (²) |
| 29-2052 | Pharmacy technicians | 258 | 9.5 | 13.0 | 28 | 3 |
| 29-2053 | Psychiatric technicians | 61 | 9.5 | 13.0 | 6 | 1 |
| 29-2054 | Respiratory therapy technicians | 25 | 9.5 | 13.0 | 2 | (²) |
| 29-2055 | Surgical technologists | 84 | 9.5 | 13.0 | 9 | 1 |
| 29-2056 | Veterinary technologists and technicians | 60 | 9.5 | 13.0 | 7 | 1 |
| 29-2061 | Licensed practical and licensed vocational nurses | 726 | 9.1 | 21.8 | 71 | 16 |
| 29-2071 | Medical records and health information technicians .. | 159 | 5.4 | 14.3 | 10 | 2 |
| 29-2081 | Opticians, dispensing | 66 | 7.4 | 17.5 | 5 | 1 |
| 29-2090 | Miscellaneous health technologists and technicians .. | 91 | 5.9 | 18.0 | 6 | 2 |
| 29-2091 | Orthotists and prosthetists..... | 6 | 5.9 | 16.2 | (²) | (²) |
| 29-2099 | Healthcare technologists and technicians, all other .. | 85 | 5.9 | 18.1 | 6 | 2 |
| 29-9000 | Other healthcare practitioners and technical occupations ¹ | 121 | 6.2 | 20.1 | 8 | 2 |
| 29-9010 | Occupational health and safety specialists and technicians ¹ | 51 | 6.2 | 21.7 | 3 | 1 |
| 29-9011 | Occupational health and safety specialists ¹ | 40 | 6.2 | 21.7 | 3 | 1 |
| 29-9012 | Occupational health and safety technicians ¹ | 12 | 6.2 | 21.7 | 1 | (²) |
| 29-9090 | Miscellaneous health practitioners and technical workers ¹ | 70 | 6.2 | 18.9 | 5 | 1 |
| 29-9091 | Athletic trainers ¹ | 15 | 6.2 | 21.7 | 1 | (²) |
| 29-9099 | Healthcare practitioners and technical workers, all other ¹ | 55 | 6.2 | 18.1 | 4 | 1 |
| 31-3900 | Service occupations | 27,673 | 21.6 | 28.7 | 6,541 | 795 |
| 31-0000 | Healthcare support occupations..... | 3,492 | 15.3 | 15.8 | 624 | 55 |
| 31-1000 | Nursing, psychiatric, and home health aides..... | 2,139 | 16.9 | 13.1 | 419 | 28 |
| 31-1011 | Home health aides | 624 | 16.9 | 13.1 | 135 | 8 |
| 31-1012 | Nursing aides, orderlies, and attendants..... | 1,455 | 16.9 | 13.1 | 274 | 19 |
| 31-1013 | Psychiatric aides | 59 | 16.9 | 13.1 | 10 | 1 |
| 31-2000 | Occupational and physical therapist assistants and aides | 128 | 6.4 | 15.8 | 10 | 2 |
| 31-2010 | Occupational therapist assistants and aides | 27 | 5.4 | 12.7 | 2 | (²) |
| 31-2011 | Occupational therapist assistants..... | 21 | 5.4 | 12.7 | 1 | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 31-2012 | Occupational therapist aides | 5 | 5.4 | 12.7 | (²) | (²) |
| 31-2020 | Physical therapist assistants and aides | 101 | 6.6 | 16.7 | 8 | 2 |
| 31-2021 | Physical therapist assistants | 59 | 6.6 | 16.7 | 5 | 1 |
| 31-2022 | Physical therapist aides | 43 | 6.6 | 16.7 | 3 | 1 |
| 31-9000 | Other healthcare support occupations | 1,225 | 13.5 | 20.6 | 195 | 25 |
| 31-9011 | Massage therapists | 97 | 8.8 | 19.4 | 10 | 2 |
| 31-9090 | Miscellaneous healthcare support occupations | 1,129 | 13.9 | 20.7 | 185 | 23 |
| 31-9091 | Dental assistants | 267 | 10.4 | 28.0 | 34 | 7 |
| 31-9092 | Medical assistants | 387 | 15.0 | 18.5 | 73 | 7 |
| 31-9093 | Medical equipment preparers | 43 | 15.0 | 18.5 | 7 | 1 |
| 31-9094 | Medical transcriptionists | 105 | 15.0 | 18.5 | 18 | 2 |
| 31-9095 | Pharmacy aides | 50 | 15.0 | 18.5 | 8 | 1 |
| 31-9096 | Veterinary assistants and laboratory animal caretakers | 74 | 15.0 | 18.5 | 12 | 1 |
| 31-9099 | Healthcare support workers, all other | 202 | 15.0 | 18.5 | 33 | 4 |
| 33-0000 | Protective service occupations | 3,138 | 14.4 | 28.3 | 484 | 89 |
| 33-1000 | First-line supervisors/managers, protective service workers | 243 | 6.3 | 32.8 | 16 | 8 |
| 33-1010 | First-line supervisors/managers, law enforcement workers | 138 | 6.3 | 32.0 | 9 | 4 |
| 33-1011 | First-line supervisors/managers of correctional officers | 38 | 5.3 | 29.5 | 2 | 1 |
| 33-1012 | First-line supervisors/managers of police and detectives | 100 | 6.7 | 33.0 | 7 | 3 |
| 33-1021 | First-line supervisors/managers of fire fighting and prevention workers ¹ | 56 | 4.6 | 41.2 | 3 | 2 |
| 33-1099 | First-line supervisors/managers, protective service workers, all other | 50 | 8.4 | 25.4 | 4 | 1 |
| 33-2000 | Fire fighting and prevention workers | 297 | 4.6 | 29.0 | 15 | 9 |
| 33-2011 | Fire fighters | 282 | 4.6 | 29.0 | 15 | 8 |
| 33-2020 | Fire inspectors | 15 | 3.6 | 28.5 | 1 | (²) |
| 33-2021 | Fire inspectors and investigators | 13 | 3.6 | 28.5 | (²) | (²) |
| 33-2022 | Forest fire inspectors and prevention specialists | 2 | 3.6 | 28.5 | (²) | (²) |
| 33-3000 | Law enforcement workers | 1,199 | 7.8 | 23.9 | 100 | 29 |
| 33-3010 | Bailiffs, correctional officers, and jailers | 447 | 11.6 | 20.7 | 53 | 9 |
| 33-3011 | Bailiffs | 18 | 11.6 | 20.7 | 2 | (²) |
| 33-3012 | Correctional officers and jailers | 429 | 11.6 | 20.7 | 51 | 9 |
| 33-3021 | Detectives and criminal investigators ¹ | 91 | 7.5 | 26.8 | 7 | 2 |
| 33-3031 | Fish and game wardens ¹ | 7 | 7.5 | 25.0 | 1 | (²) |
| 33-3041 | Parking enforcement workers ¹ | 11 | 7.5 | 18.6 | 1 | (²) |
| 33-3050 | Police officers | 644 | 5.4 | 25.8 | 37 | 17 |
| 33-3051 | Police and sheriff's patrol officers | 639 | 5.4 | 25.9 | 37 | 17 |
| 33-3052 | Transit and railroad police ¹ | 5 | 5.3 | 18.9 | (²) | (²) |
| 33-9000 | Other protective service workers | 1,399 | 23.6 | 31.1 | 353 | 43 |
| 33-9011 | Animal control workers ¹ | 15 | 22.7 | 69.8 | 4 | 1 |
| 33-9021 | Private detectives and investigators | 43 | 13.4 | 21.1 | 6 | 1 |
| 33-9030 | Security guards and gaming surveillance officers | 1,025 | 20.1 | 21.8 | 219 | 22 |
| 33-9031 | Gaming surveillance officers and gaming investigators | 9 | 20.1 | 21.8 | 2 | (²) |
| 33-9032 | Security guards | 1,016 | 20.1 | 21.8 | 217 | 22 |
| 33-9090 | Miscellaneous protective service workers | 316 | 36.4 | 60.9 | 124 | 19 |
| 33-9091 | Crossing guards | 71 | 31.8 | 32.2 | 25 | 2 |
| 33-9092 | Lifeguards, ski patrol, and other recreational protective service workers | 113 | 37.7 | 69.3 | 47 | 8 |
| 33-9099 | Protective service workers, all other | 131 | 37.7 | 69.3 | 52 | 9 |
| 35-0000 | Food preparation and serving related occupations | 10,739 | 27.8 | 39.7 | 3,223 | 427 |
| 35-1000 | Supervisors, food preparation and serving workers | 898 | 18.8 | 24.6 | 183 | 22 |
| 35-1011 | Chefs and head cooks | 125 | 6.7 | 29.6 | 9 | 4 |
| 35-1012 | First-line supervisors/managers of food preparation and serving workers | 773 | 20.8 | 23.8 | 174 | 18 |
| 35-2000 | Cooks and food preparation workers | 3,011 | 24.5 | 32.3 | 792 | 97 |
| 35-2010 | Cooks | 2,122 | 22.8 | 31.0 | 516 | 66 |
| 35-2011 | Cooks, fast food | 662 | 22.8 | 31.0 | 164 | 21 |
| 35-2012 | Cooks, institution and cafeteria | 424 | 22.8 | 31.0 | 98 | 13 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 35-2013 | Cooks, private household | 9 | 22.8 | 31.0 | 2 | (²) |
| 35-2014 | Cooks, restaurant | 783 | 22.8 | 31.0 | 194 | 24 |
| 35-2015 | Cooks, short order | 230 | 22.8 | 31.0 | 56 | 7 |
| 35-2019 | Cooks, all other | 13 | 22.8 | 31.1 | 3 | (²) |
| 35-2021 | Food preparation workers | 889 | 28.3 | 35.4 | 276 | 31 |
| 35-3000 | Food and beverage serving workers | 5,530 | 29.8 | 47.8 | 1,786 | 264 |
| 35-3011 | Bartenders | 474 | 14.8 | 39.5 | 75 | 19 |
| 35-3020 | Fast food and counter workers | 2,614 | 31.9 | 47.2 | 905 | 123 |
| 35-3021 | Combined food preparation and serving workers, including fast food | 2,150 | 30.6 | 43.3 | 714 | 93 |
| 35-3022 | Counter attendants, cafeteria, food concession, and coffee shop | 465 | 37.9 | 65.3 | 191 | 30 |
| 35-3031 | Waiters and waitresses | 2,252 | 31.3 | 51.5 | 763 | 116 |
| 35-3041 | Food servers, nonrestaurant | 189 | 21.7 | 33.5 | 43 | 6 |
| 35-9000 | Other food preparation and serving related workers | 1,301 | 32.9 | 33.0 | 462 | 43 |
| 35-9011 | Dining room and cafeteria attendants and bartender helpers | 401 | 38.8 | 33.4 | 168 | 13 |
| 35-9021 | Dishwashers | 507 | 28.6 | 33.8 | 156 | 17 |
| 35-9031 | Hosts and hostesses, restaurant, lounge, and coffee shop ¹ | 328 | 31.3 | 31.8 | 111 | 10 |
| 35-9099 | Food preparation and serving related workers, all other ¹ | 64 | 39.0 | 31.1 | 27 | 2 |
| 37-0000 | Building and grounds cleaning and maintenance occupations | 5,582 | 17.4 | 20.0 | 1,055 | 111 |
| 37-1000 | Supervisors, building and grounds cleaning and maintenance workers | 420 | 5.9 | 17.3 | 27 | 7 |
| 37-1011 | First-line supervisors/managers of housekeeping and janitorial workers | 236 | 6.3 | 23.6 | 16 | 6 |
| 37-1012 | First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers | 184 | 5.5 | 9.3 | 11 | 2 |
| 37-2000 | Building cleaning and pest control workers | 3,879 | 18.8 | 19.7 | 788 | 76 |
| 37-2010 | Building cleaning workers | 3,811 | 19.1 | 19.7 | 785 | 75 |
| 37-2011 | Janitors and cleaners, except maids and housekeeping cleaners | 2,374 | 18.7 | 19.0 | 484 | 45 |
| 37-2012 | Maids and housekeeping cleaners | 1,422 | 19.8 | 21.0 | 298 | 30 |
| 37-2019 | Building cleaning workers, all other | 15 | 18.7 | 20.5 | 3 | (²) |
| 37-2021 | Pest control workers | 68 | 3.6 | 15.1 | 3 | 1 |
| 37-3000 | Grounds maintenance workers | 1,283 | 17.0 | 21.7 | 240 | 28 |
| 37-3010 | Grounds maintenance workers | 1,283 | 17.0 | 21.7 | 240 | 28 |
| 37-3011 | Landscaping and groundskeeping workers | 1,177 | 17.0 | 21.8 | 220 | 26 |
| 37-3012 | Pesticide handlers, sprayers, and applicators, vegetation | 30 | 17.0 | 21.8 | 5 | 1 |
| 37-3013 | Tree trimmers and pruners | 55 | 17.0 | 21.8 | 10 | 1 |
| 37-3019 | Grounds maintenance workers, all other | 21 | 17.0 | 20.5 | 4 | (²) |
| 39-0000 | Personal care and service occupations | 4,721 | 22.1 | 23.9 | 1,155 | 113 |
| 39-1000 | Supervisors, personal care and service workers | 267 | 9.8 | 24.2 | 28 | 6 |
| 39-1010 | First-line supervisors/managers of gaming workers | 61 | 18.2 | 21.0 | 12 | 1 |
| 39-1011 | Gaming supervisors | 38 | 18.2 | 21.0 | 7 | 1 |
| 39-1012 | Slot key persons | 23 | 18.2 | 21.0 | 5 | (²) |
| 39-1021 | First-line supervisors/managers of personal service workers | 206 | 7.3 | 25.1 | 16 | 5 |
| 39-2000 | Animal care and service workers | 172 | 15.5 | 23.8 | 30 | 4 |
| 39-2011 | Animal trainers | 44 | 3.7 | 20.6 | 2 | 1 |
| 39-2021 | Nonfarm animal caretakers | 128 | 19.4 | 24.9 | 28 | 3 |
| 39-3000 | Entertainment attendants and related workers | 558 | 34.6 | 35.6 | 215 | 20 |
| 39-3010 | Gaming services workers | 116 | 9.1 | 31.4 | 12 | 4 |
| 39-3011 | Gaming dealers | 83 | 9.1 | 31.6 | 9 | 3 |
| 39-3012 | Gaming and sports book writers and runners | 18 | 9.1 | 31.6 | 2 | 1 |
| 39-3019 | Gaming service workers, all other | 15 | 9.1 | 30.4 | 2 | (²) |
| 39-3021 | Motion picture projectionists ¹ | 12 | 37.4 | 51.7 | 4 | 1 |
| 39-3031 | Ushers, lobby attendants, and ticket takers ¹ | 112 | 37.4 | 57.0 | 44 | 6 |
| 39-3090 | Miscellaneous entertainment attendants and related workers | 318 | 43.0 | 29.0 | 154 | 9 |
| 39-3091 | Amusement and recreation attendants | 252 | 43.0 | 28.8 | 123 | 7 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 39-3092 | Costume attendants | 4 | 43.0 | 28.8 | 2 | (²) |
| 39-3093 | Locker room, coatroom, and dressing room attendants | 25 | 43.0 | 28.8 | 12 | 1 |
| 39-3099 | Entertainment attendants and related workers, all other | 38 | 43.0 | 30.4 | 18 | 1 |
| 39-4000 | Funeral service workers ¹ | 38 | 22.5 | 20.9 | 9 | 1 |
| 39-4011 | Embalmers ¹ | 9 | 22.5 | 20.9 | 2 | (²) |
| 39-4021 | Funeral attendants ¹ | 30 | 22.5 | 20.9 | 7 | 1 |
| 39-5000 | Personal appearance workers | 790 | 8.9 | 19.9 | 75 | 16 |
| 39-5010 | Barbers and cosmetologists | 670 | 7.5 | 20.1 | 54 | 13 |
| 39-5011 | Barbers | 60 | 7.9 | 28.1 | 5 | 2 |
| 39-5012 | Hairdressers, hairstylists, and cosmetologists | 610 | 7.4 | 19.3 | 49 | 12 |
| 39-5090 | Miscellaneous personal appearance workers | 120 | 16.6 | 19.4 | 22 | 2 |
| 39-5091 | Makeup artists, theatrical and performance | 2 | 16.6 | 19.4 | (²) | (²) |
| 39-5092 | Manicurists and pedicurists | 60 | 16.6 | 19.4 | 11 | 1 |
| 39-5093 | Shampooers | 27 | 16.6 | 19.4 | 5 | 1 |
| 39-5094 | Skin care specialists | 30 | 16.6 | 19.4 | 6 | 1 |
| 39-6000 | Transportation, tourism, and lodging attendants | 248 | 6.8 | 19.3 | 18 | 5 |
| 39-6010 | Baggage porters, bellhops, and concierges | 75 | 7.0 | 26.4 | 6 | 2 |
| 39-6011 | Baggage porters and bellhops | 57 | 7.0 | 26.4 | 4 | 1 |
| 39-6012 | Concierges | 18 | 7.0 | 26.4 | 1 | (²) |
| 39-6020 | Tour and travel guides | 44 | 11.2 | 26.5 | 5 | 1 |
| 39-6021 | Tour guides and escorts | 38 | 11.2 | 26.5 | 5 | 1 |
| 39-6022 | Travel guides | 6 | 11.2 | 26.5 | 1 | (²) |
| 39-6030 | Transportation attendants | 130 | 5.2 | 12.8 | 7 | 2 |
| 39-6031 | Flight attendants | 102 | 5.2 | 12.8 | 6 | 1 |
| 39-6032 | Transportation attendants, except flight attendants and baggage porters | 28 | 5.2 | 12.8 | 2 | (²) |
| 39-9000 | Other personal care and service workers | 2,648 | 26.4 | 23.1 | 779 | 61 |
| 39-9011 | Child care workers | 1,280 | 30.8 | 27.2 | 421 | 35 |
| 39-9021 | Personal and home care aides | 701 | 23.8 | 16.0 | 201 | 11 |
| 39-9030 | Recreation and fitness workers | 514 | 19.0 | 22.9 | 108 | 12 |
| 39-9031 | Fitness trainers and aerobics instructors | 205 | 19.0 | 22.9 | 44 | 5 |
| 39-9032 | Recreation workers | 310 | 19.0 | 22.9 | 64 | 7 |
| 39-9041 | Residential advisors | 56 | 31.3 | 21.1 | 20 | 1 |
| 39-9099 | Personal care and service workers, all other | 96 | 27.2 | 21.5 | 28 | 2 |
| 41-0000 | Sales and related occupations | 15,330 | 22.3 | 32.2 | 3,585 | 493 |
| 41-1000 | Supervisors, sales workers | 2,183 | 11.7 | 18.2 | 260 | 40 |
| 41-1011 | First-line supervisors/managers of retail sales workers | 1,667 | 13.1 | 18.0 | 223 | 30 |
| 41-1012 | First-line supervisors/managers of non-retail sales workers | 516 | 7.1 | 18.9 | 37 | 10 |
| 41-2000 | Retail sales workers | 8,445 | 29.5 | 41.3 | 2,632 | 349 |
| 41-2010 | Cashiers | 3,499 | 34.1 | 48.7 | 1,211 | 170 |
| 41-2011 | Cashiers, except gaming | 3,470 | 34.1 | 48.7 | 1,201 | 169 |
| 41-2012 | Gaming change persons and booth cashiers | 29 | 34.1 | 48.7 | 11 | 1 |
| 41-2020 | Counter and rental clerks and parts salespersons | 690 | 19.6 | 34.9 | 144 | 24 |
| 41-2021 | Counter and rental clerks | 451 | 23.1 | 38.3 | 116 | 17 |
| 41-2022 | Parts salespersons | 239 | 12.0 | 28.6 | 28 | 7 |
| 41-2031 | Retail salespersons | 4,256 | 27.6 | 36.4 | 1,276 | 155 |
| 41-3000 | Sales representatives, services | 1,318 | 11.2 | 19.2 | 156 | 25 |
| 41-3011 | Advertising sales agents | 154 | 12.9 | 19.4 | 22 | 3 |
| 41-3021 | Insurance sales agents | 400 | 10.0 | 23.9 | 41 | 10 |
| 41-3031 | Securities, commodities, and financial services sales agents | 281 | 11.5 | 11.3 | 34 | 3 |
| 41-3041 | Travel agents | 103 | 4.5 | 22.4 | 4 | 2 |
| 41-3099 | Sales representatives, services, all other | 380 | 13.0 | 19.0 | 54 | 7 |
| 41-4000 | Sales representatives, wholesale and manufacturing | 1,851 | 9.7 | 26.3 | 192 | 49 |
| 41-4011 | Sales representatives, wholesale and manufacturing, technical and scientific products | 397 | 9.7 | 26.3 | 41 | 10 |
| 41-4012 | Sales representatives, wholesale and manufacturing, except technical and scientific products | 1,454 | 9.7 | 26.3 | 150 | 38 |
| 41-9000 | Other sales and related workers | 1,533 | 22.1 | 20.0 | 347 | 31 |
| 41-9010 | Models, demonstrators, and product promoters | 120 | 23.5 | 22.2 | 31 | 3 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|---|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 41-9011 | Demonstrators and product promoters..... | 118 | 23.5 | 22.2 | 30 | 3 |
| 41-9012 | Models..... | 2 | 23.5 | 22.2 | 1 | (²) |
| 41-9020 | Real estate brokers and sales agents..... | 460 | 9.7 | 19.9 | 48 | 9 |
| 41-9021 | Real estate brokers..... | 111 | 9.7 | 19.9 | 11 | 2 |
| 41-9022 | Real estate sales agents..... | 348 | 9.7 | 19.9 | 36 | 7 |
| 41-9031 | Sales engineers ¹ | 74 | 9.1 | 29.8 | 7 | 2 |
| 41-9041 | Telemarketers..... | 415 | 39.6 | 16.4 | 156 | 7 |
| 41-9090 | Miscellaneous sales and related workers..... | 465 | 22.1 | 21.4 | 105 | 10 |
| 41-9091 | Door-to-door sales workers, news and street vendors, and related workers..... | 239 | 24.3 | 23.6 | 56 | 6 |
| 41-9099 | Sales and related workers, all other..... | 226 | 20.0 | 19.0 | 49 | 4 |
| 43-0000 | Office and administrative support occupations..... | 23,907 | 16.2 | 22.8 | 3,988 | 545 |
| 43-1000 | Supervisors, office and administrative support workers..... | 1,482 | 10.0 | 21.5 | 155 | 32 |
| 43-1011 | First-line supervisors/managers of office and administrative support workers..... | 1,482 | 10.0 | 21.5 | 155 | 32 |
| 43-2000 | Communications equipment operators..... | 256 | 15.8 | 25.6 | 38 | 7 |
| 43-2011 | Switchboard operators, including answering service..... | 213 | 16.9 | 25.6 | 34 | 5 |
| 43-2021 | Telephone operators..... | 39 | 9.2 | 25.9 | 3 | 1 |
| 43-2099 | Communications equipment operators, all other ¹ | 4 | 16.4 | 21.4 | 1 | (²) |
| 43-3000 | Financial clerks..... | 3,891 | 14.1 | 23.6 | 571 | 92 |
| 43-3011 | Bill and account collectors..... | 456 | 14.8 | 18.8 | 75 | 9 |
| 43-3021 | Billing and posting clerks and machine operators..... | 523 | 12.8 | 17.0 | 68 | 9 |
| 43-3031 | Bookkeeping, accounting, and auditing clerks..... | 2,046 | 13.3 | 18.7 | 279 | 38 |
| 43-3041 | Gaming cage workers..... | 20 | 6.7 | 48.7 | 1 | 1 |
| 43-3051 | Payroll and timekeeping clerks..... | 214 | 14.1 | 26.4 | 33 | 6 |
| 43-3061 | Procurement clerks ¹ | 74 | 13.9 | 25.4 | 10 | 2 |
| 43-3071 | Tellers..... | 558 | 18.0 | 49.3 | 104 | 27 |
| 43-4000 | Information and record clerks..... | 5,554 | 19.5 | 21.0 | 1,148 | 117 |
| 43-4011 | Brokerage clerks ¹ | 75 | 21.4 | 13.3 | 17 | 1 |
| 43-4021 | Correspondence clerks ¹ | 23 | 21.4 | 29.7 | 5 | 1 |
| 43-4031 | Court, municipal, and license clerks..... | 110 | 9.4 | 22.2 | 11 | 2 |
| 43-4041 | Credit authorizers, checkers, and clerks..... | 67 | 10.2 | 19.2 | 5 | 1 |
| 43-4051 | Customer service representatives..... | 2,063 | 20.1 | 14.9 | 463 | 31 |
| 43-4061 | Eligibility interviewers, government programs..... | 98 | 10.9 | 26.7 | 10 | 3 |
| 43-4071 | File clerks..... | 255 | 23.8 | 29.7 | 50 | 8 |
| 43-4081 | Hotel, motel, and resort desk clerks..... | 195 | 27.7 | 44.9 | 59 | 9 |
| 43-4111 | Interviewers, except eligibility and loan..... | 199 | 16.9 | 25.8 | 38 | 5 |
| 43-4121 | Library assistants, clerical..... | 109 | 21.2 | 40.5 | 24 | 4 |
| 43-4131 | Loan interviewers and clerks..... | 218 | 16.3 | 13.7 | 36 | 3 |
| 43-4141 | New accounts clerks..... | 98 | 7.2 | 25.1 | 7 | 2 |
| 43-4151 | Order clerks..... | 293 | 18.5 | 22.5 | 48 | 7 |
| 43-4161 | Human resources assistants, except payroll and timekeeping..... | 172 | 13.6 | 21.5 | 25 | 4 |
| 43-4171 | Receptionists and information clerks..... | 1,133 | 21.8 | 24.6 | 274 | 28 |
| 43-4181 | Reservation and transportation ticket agents and travel clerks..... | 163 | 18.1 | 26.1 | 30 | 4 |
| 43-4199 | Information and record clerks, all other..... | 285 | 16.8 | 15.7 | 46 | 4 |
| 43-5000 | Material recording, scheduling, dispatching, and distributing occupations..... | 3,849 | 15.9 | 29.3 | 605 | 113 |
| 43-5011 | Cargo and freight agents ¹ | 70 | 16.9 | 22.5 | 12 | 2 |
| 43-5021 | Couriers and messengers..... | 147 | 17.1 | 22.9 | 24 | 3 |
| 43-5030 | Dispatchers..... | 266 | 10.4 | 21.5 | 29 | 6 |
| 43-5031 | Police, fire, and ambulance dispatchers..... | 95 | 10.4 | 21.5 | 11 | 2 |
| 43-5032 | Dispatchers, except police, fire, and ambulance..... | 171 | 10.4 | 21.5 | 18 | 4 |
| 43-5041 | Meter readers, utilities..... | 50 | 20.6 | 31.5 | 8 | 2 |
| 43-5050 | Postal service workers..... | 619 | 5.5 | 29.1 | 34 | 18 |
| 43-5051 | Postal service clerks ¹ | 75 | 5.5 | 26.4 | 4 | 2 |
| 43-5052 | Postal service mail carriers..... | 335 | 5.8 | 31.3 | 19 | 11 |
| 43-5053 | Postal service mail sorters, processors, and processing machine operators..... | 209 | 5.1 | 26.4 | 11 | 6 |
| 43-5061 | Production, planning, and expediting clerks..... | 292 | 7.3 | 24.2 | 22 | 7 |
| 43-5071 | Shipping, receiving, and traffic clerks..... | 751 | 15.4 | 20.5 | 118 | 15 |
| 43-5081 | Stock clerks and order fillers..... | 1,566 | 23.3 | 37.0 | 351 | 58 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|------------------------|----------------------------|--------------|---|------------------|
| | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 43-5111 Weighers, measurers, checkers, and samplers, recordkeeping | 88 | 8.7 | 25.3 | 7 | 2 |
| 43-6000 Secretaries and administrative assistants | 4,126 | 12.1 | 19.2 | 515 | 79 |
| 43-6011 Executive secretaries and administrative assistants | 1,547 | 12.1 | 19.2 | 199 | 30 |
| 43-6012 Legal secretaries | 272 | 12.1 | 19.2 | 36 | 5 |
| 43-6013 Medical secretaries | 373 | 12.1 | 19.2 | 49 | 7 |
| 43-6014 Secretaries, except legal, medical, and executive | 1,934 | 12.1 | 19.2 | 231 | 37 |
| 43-9000 Other office and administrative support workers | 4,748 | 19.8 | 22.3 | 956 | 106 |
| 43-9011 Computer operators | 149 | 10.2 | 21.3 | 13 | 3 |
| 43-9020 Data entry and information processing workers | 525 | 22.6 | 23.0 | 115 | 12 |
| 43-9021 Data entry keyers | 330 | 25.9 | 23.6 | 85 | 8 |
| 43-9022 Word processors and typists | 194 | 16.6 | 22.0 | 30 | 4 |
| 43-9031 Desktop publishers ¹ | 34 | 20.0 | 22.6 | 7 | 1 |
| 43-9041 Insurance claims and policy processing clerks | 251 | 13.4 | 16.1 | 34 | 4 |
| 43-9051 Mail clerks and mail machine operators, except postal service..... | 160 | 25.3 | 29.9 | 33 | 5 |
| 43-9061 Office clerks, general..... | 3,138 | 20.5 | 22.1 | 669 | 69 |
| 43-9071 Office machine operators, except computer..... | 100 | 21.2 | 25.2 | 19 | 3 |
| 43-9081 Proofreaders and copy markers ¹ | 23 | 20.0 | 20.5 | 5 | (²) |
| 43-9111 Statistical assistants | 19 | 6.7 | 16.0 | 1 | (²) |
| 43-9199 Office and administrative support workers, all other | 349 | 16.4 | 23.6 | 60 | 8 |
| 45-0000 Farming, fishing, and forestry occupations..... | 1,026 | 19.1 | 27.0 | 194 | 28 |
| 45-1000 Supervisors, farming, fishing, and forestry workers ¹ | 61 | 17.8 | 22.9 | 11 | 1 |
| 45-2000 Agricultural workers | 834 | 19.3 | 27.9 | 160 | 23 |
| 45-2011 Agricultural inspectors ¹ | 14 | 18.7 | 24.3 | 3 | (²) |
| 45-2021 Animal breeders | 12 | 8.3 | 16.7 | 1 | (²) |
| 45-2041 Graders and sorters, agricultural products | 45 | 8.7 | 26.5 | 4 | 1 |
| 45-2090 Miscellaneous agricultural workers | 764 | 20.1 | 28.3 | 152 | 22 |
| 45-2091 Agricultural equipment operators..... | 60 | 20.1 | 28.3 | 12 | 2 |
| 45-2092 Farmworkers and laborers, crop, nursery, and greenhouse..... | 611 | 20.1 | 28.3 | 121 | 17 |
| 45-2093 Farmworkers, farm and ranch animals..... | 79 | 20.1 | 28.3 | 16 | 2 |
| 45-2099 Agricultural workers, all other | 14 | 20.1 | 24.1 | 3 | (²) |
| 45-3000 Fishing and hunting workers | 39 | 18.1 | 29.3 | 7 | 1 |
| 45-3011 Fishers and related fishing workers..... | 38 | 18.1 | 28.5 | 6 | 1 |
| 45-3021 Hunters and trappers ¹ | 1 | 16.9 | 57.9 | (²) | (²) |
| 45-4000 Forest, conservation, and logging workers..... | 92 | 18.7 | 20.0 | 17 | 2 |
| 45-4011 Forest and conservation workers | 17 | 11.3 | 24.6 | 2 | (²) |
| 45-4020 Logging workers | 75 | 20.4 | 19.0 | 15 | 1 |
| 45-4021 Fallers..... | 15 | 20.4 | 18.4 | 3 | (²) |
| 45-4022 Logging equipment operators..... | 43 | 20.4 | 18.4 | 9 | 1 |
| 45-4023 Log graders and scalers..... | 9 | 20.4 | 18.4 | 2 | (²) |
| 45-4029 Logging workers, all other | 7 | 20.4 | 24.1 | 1 | (²) |
| 47-0000 Construction and extraction occupations | 7,738 | 13.6 | 19.7 | 1,116 | 152 |
| 47-1000 Supervisors, construction and extraction workers..... | 750 | 6.1 | 17.0 | 48 | 13 |
| 47-1011 First-line supervisors/managers of construction trades and extraction workers..... | 750 | 6.1 | 17.0 | 48 | 13 |
| 47-2000 Construction trades and related workers..... | 5,929 | 14.3 | 18.3 | 899 | 109 |
| 47-2011 Boilermakers | 19 | 7.7 | 36.4 | 2 | 1 |
| 47-2020 Brickmasons, blockmasons, and stonemasons | 177 | 9.2 | 14.9 | 17 | 3 |
| 47-2021 Brickmasons and blockmasons | 155 | 9.2 | 14.9 | 15 | 2 |
| 47-2022 Stonemasons | 22 | 9.2 | 14.9 | 2 | (²) |
| 47-2031 Carpenters..... | 1,349 | 13.3 | 16.3 | 192 | 22 |
| 47-2040 Carpet, floor, and tile installers and finishers..... | 184 | 12.1 | 15.6 | 24 | 3 |
| 47-2041 Carpet installers | 79 | 12.1 | 15.6 | 10 | 1 |
| 47-2042 Floor layers, except carpet, wood, and hard tiles..... | 31 | 12.1 | 15.6 | 4 | (²) |
| 47-2043 Floor sanders and finishers | 15 | 12.1 | 15.6 | 2 | (²) |
| 47-2044 Tile and marble setters | 59 | 12.1 | 15.6 | 8 | 1 |
| 47-2050 Cement masons, concrete finishers, and terrazzo workers | 208 | 13.2 | 20.1 | 30 | 4 |
| 47-2051 Cement masons and concrete finishers | 201 | 13.2 | 20.1 | 29 | 4 |
| 47-2053 Terrazzo workers and finishers..... | 7 | 13.2 | 20.1 | 1 | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 47-2061 | Construction laborers | 1,009 | 23.0 | 13.3 | 239 | 13 |
| 47-2070 | Construction equipment operators | 449 | 8.1 | 24.0 | 38 | 11 |
| 47-2071 | Paving, surfacing, and tamping equipment operators ¹ | 63 | 8.1 | 14.3 | 6 | 1 |
| 47-2072 | Pile-driver operators ¹ | 4 | 8.1 | 16.9 | (²) | (²) |
| 47-2073 | Operating engineers and other construction equipment operators | 382 | 8.1 | 25.7 | 33 | 10 |
| 47-2080 | Drywall installers, ceiling tile installers, and tapers | 196 | 10.0 | 21.7 | 20 | 4 |
| 47-2081 | Drywall and ceiling tile installers | 149 | 10.0 | 21.7 | 16 | 3 |
| 47-2082 | Tapers | 47 | 10.0 | 21.7 | 5 | 1 |
| 47-2111 | Electricians | 656 | 8.7 | 19.8 | 61 | 13 |
| 47-2121 | Glaziers ¹ | 49 | 15.1 | 20.9 | 8 | 1 |
| 47-2130 | Insulation workers | 61 | 9.1 | 30.2 | 6 | 2 |
| 47-2131 | Insulation workers, floor, ceiling, and wall | 42 | 9.1 | 30.2 | 4 | 1 |
| 47-2132 | Insulation workers, mechanical | 19 | 9.1 | 30.2 | 2 | 1 |
| 47-2140 | Painters and paperhangers | 486 | 19.1 | 15.2 | 99 | 7 |
| 47-2141 | Painters, construction and maintenance | 471 | 19.1 | 15.2 | 96 | 7 |
| 47-2142 | Paperhangers ¹ | 14 | 19.0 | 12.7 | 3 | (²) |
| 47-2150 | Pipelayers, plumbers, pipefitters, and steamfitters | 561 | 10.0 | 23.0 | 60 | 13 |
| 47-2151 | Pipelayers | 62 | 10.0 | 23.0 | 7 | 1 |
| 47-2152 | Plumbers, pipefitters, and steamfitters | 499 | 10.0 | 23.0 | 54 | 11 |
| 47-2161 | Plasterers and stucco masons | 59 | 8.1 | 18.3 | 5 | 1 |
| 47-2171 | Reinforcing iron and rebar workers ¹ | 34 | 15.1 | 19.4 | 5 | 1 |
| 47-2181 | Roofers | 162 | 20.1 | 23.3 | 35 | 4 |
| 47-2211 | Sheet metal workers | 198 | 22.5 | 24.0 | 47 | 5 |
| 47-2221 | Structural iron and steel workers | 73 | 15.6 | 19.6 | 12 | 1 |
| 47-3000 | Helpers, construction trades | 431 | 19.5 | 41.5 | 89 | 18 |
| 47-3010 | Helpers, construction trades | 431 | 19.5 | 41.5 | 89 | 18 |
| 47-3011 | Helpers—brickmasons, blockmasons, stonemasons, and tile and marble setters | 62 | 19.5 | 41.5 | 13 | 3 |
| 47-3012 | Helpers—carpenters | 109 | 19.5 | 41.5 | 23 | 5 |
| 47-3013 | Helpers—electricians | 95 | 19.5 | 41.5 | 19 | 4 |
| 47-3014 | Helpers—painters, paperhangers, plasterers, and stucco masons | 27 | 19.5 | 41.5 | 6 | 1 |
| 47-3015 | Helpers—pipelayers, plumbers, pipefitters, and steamfitters | 76 | 19.5 | 41.5 | 16 | 3 |
| 47-3016 | Helpers—roofers | 22 | 19.5 | 41.5 | 5 | 1 |
| 47-3019 | Helpers, construction trades, all other | 39 | 19.5 | 41.5 | 8 | 2 |
| 47-4000 | Other construction and related workers | 460 | 10.7 | 18.7 | 55 | 9 |
| 47-4011 | Construction and building inspectors | 94 | 4.0 | 22.5 | 4 | 2 |
| 47-4021 | Elevator installers and repairers ¹ | 22 | 10.8 | 24.7 | 3 | 1 |
| 47-4031 | Fence erectors ¹ | 38 | 10.8 | 14.8 | 4 | 1 |
| 47-4041 | Hazardous materials removal workers | 38 | 23.2 | 26.4 | 10 | 1 |
| 47-4051 | Highway maintenance workers | 143 | 14.6 | 14.5 | 23 | 2 |
| 47-4061 | Rail-track laying and maintenance equipment operators | 11 | 7.5 | 22.6 | 1 | (²) |
| 47-4071 | Septic tank servicers and sewer pipe cleaners ¹ | 20 | 10.8 | 26.7 | 2 | 1 |
| 47-4090 | Miscellaneous construction and related workers | 94 | 6.4 | 16.0 | 7 | 1 |
| 47-4091 | Segmental pavers | 1 | 6.4 | 16.0 | (²) | (²) |
| 47-4099 | Construction and related workers, all other | 92 | 6.4 | 16.0 | 7 | 1 |
| 47-5000 | Extraction workers | 169 | 14.7 | 27.2 | 25 | 5 |
| 47-5010 | Derrick, rotary drill, and service unit operators, oil, gas, and mining | 47 | 8.1 | 29.0 | 4 | 1 |
| 47-5011 | Derrick operators, oil and gas | 15 | 8.1 | 29.0 | 1 | (²) |
| 47-5012 | Rotary drill operators, oil and gas | 15 | 8.1 | 29.0 | 1 | (²) |
| 47-5013 | Service unit operators, oil, gas, and mining | 17 | 8.1 | 29.0 | 1 | 1 |
| 47-5021 | Earth drillers, except oil and gas | 22 | 18.4 | 21.1 | 4 | (²) |
| 47-5031 | Explosives workers, ordnance handling experts, and blasters ¹ | 5 | 16.3 | 38.1 | 1 | (²) |
| 47-5040 | Mining machine operators | 15 | 7.8 | 28.4 | 1 | (²) |
| 47-5041 | Continuous mining machine operators | 8 | 7.8 | 28.4 | 1 | (²) |
| 47-5042 | Mine cutting and channeling machine operators | 4 | 7.8 | 28.4 | (²) | (²) |
| 47-5049 | Mining machine operators, all other | 3 | 7.8 | 28.4 | (²) | (²) |
| 47-5051 | Rock splitters, quarry | 3 | 28.4 | 24.7 | 1 | (²) |
| 47-5061 | Roof bolters, mining ¹ | 4 | 16.3 | 18.2 | 1 | (²) |
| 47-5071 | Roustabouts, oil and gas ¹ | 34 | 16.3 | 27.7 | 5 | 1 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 47-5081 | Helpers—extraction workers ¹ | 27 | 16.3 | 28.2 | 4 | 1 |
| 47-5099 | Extraction workers, all other | 12 | 28.4 | 24.7 | 3 | (²) |
| 49-0000 | Installation, maintenance, and repair occupations | 5,747 | 10.2 | 22.9 | 618 | 132 |
| 49-1000 | Supervisors of installation, maintenance, and repair workers | 469 | 5.4 | 25.1 | 27 | 12 |
| 49-1011 | First-line supervisors/managers of mechanics, installers, and repairers | 469 | 5.4 | 25.1 | 27 | 12 |
| 49-2000 | Electrical and electronic equipment mechanics, installers, and repairers..... | 664 | 13.1 | 19.0 | 89 | 13 |
| 49-2011 | Computer, automated teller, and office machine repairers..... | 168 | 17.5 | 12.2 | 30 | 2 |
| 49-2020 | Radio and telecommunications equipment installers and repairers..... | 222 | 9.9 | 20.7 | 21 | 5 |
| 49-2021 | Radio mechanics..... | 7 | 9.9 | 20.7 | 1 | (²) |
| 49-2022 | Telecommunications equipment installers and repairers, except line installers | 215 | 9.9 | 20.7 | 21 | 4 |
| 49-2090 | Miscellaneous electrical and electronic equipment mechanics, installers, and repairers | 275 | 12.9 | 21.8 | 37 | 6 |
| 49-2091 | Avionics technicians ¹ | 23 | 7.3 | 24.2 | 2 | 1 |
| 49-2092 | Electric motor, power tool, and related repairers..... | 28 | 9.8 | 24.0 | 3 | 1 |
| 49-2093 | Electrical and electronics installers and repairers, transportation equipment ¹ | 18 | 13.0 | 24.4 | 2 | (²) |
| 49-2094 | Electrical and electronics repairers, commercial and industrial equipment..... | 72 | 9.9 | 22.0 | 8 | 2 |
| 49-2095 | Electrical and electronics repairers, powerhouse, substation, and relay ¹ | 21 | 9.9 | 22.0 | 2 | (²) |
| 49-2096 | Electronic equipment installers and repairers, motor vehicles..... | 19 | 3.4 | 24.2 | 1 | (²) |
| 49-2097 | Electronic home entertainment equipment installers and repairers..... | 47 | 13.0 | 19.6 | 6 | 1 |
| 49-2098 | Security and fire alarm systems installers | 47 | 26.5 | 19.1 | 14 | 1 |
| 49-3000 | Vehicle and mobile equipment mechanics, installers, and repairers..... | 1,778 | 10.4 | 25.9 | 197 | 46 |
| 49-3011 | Aircraft mechanics and service technicians..... | 119 | 7.3 | 23.6 | 9 | 3 |
| 49-3020 | Automotive technicians and repairers | 1,026 | 9.0 | 25.2 | 99 | 26 |
| 49-3021 | Automotive body and related repairers..... | 201 | 7.6 | 20.3 | 16 | 4 |
| 49-3022 | Automotive glass installers and repairers..... | 22 | 8.0 | 19.0 | 2 | (²) |
| 49-3023 | Automotive service technicians and mechanics | 803 | 9.3 | 26.6 | 80 | 21 |
| 49-3031 | Bus and truck mechanics and diesel engine specialists | 270 | 9.8 | 25.7 | 28 | 7 |
| 49-3040 | Heavy vehicle and mobile equipment service technicians and mechanics..... | 178 | 10.0 | 21.7 | 18 | 4 |
| 49-3041 | Farm equipment mechanics | 33 | 10.0 | 21.7 | 3 | 1 |
| 49-3042 | Mobile heavy equipment mechanics, except engines | 125 | 10.0 | 21.7 | 13 | 3 |
| 49-3043 | Rail car repairers | 20 | 10.0 | 21.7 | 2 | (²) |
| 49-3050 | Small engine mechanics | 73 | 27.2 | 24.8 | 21 | 2 |
| 49-3051 | Motorboat mechanics | 23 | 27.2 | 24.8 | 7 | 1 |
| 49-3052 | Motorcycle mechanics..... | 19 | 27.2 | 24.8 | 6 | (²) |
| 49-3053 | Outdoor power equipment and other small engine mechanics..... | 31 | 27.2 | 24.8 | 9 | 1 |
| 49-3090 | Miscellaneous vehicle and mobile equipment mechanics, installers, and repairers | 112 | 18.1 | 42.5 | 21 | 5 |
| 49-3091 | Bicycle repairers | 8 | 18.1 | 42.5 | 2 | (²) |
| 49-3092 | Recreational vehicle service technicians..... | 13 | 18.1 | 42.5 | 3 | 1 |
| 49-3093 | Tire repairers and changers | 91 | 18.1 | 42.5 | 17 | 4 |
| 49-9000 | Other installation, maintenance, and repair occupations | 2,837 | 10.2 | 21.5 | 306 | 61 |
| 49-9010 | Control and valve installers and repairers ¹ | 48 | 9.3 | 25.0 | 5 | 1 |
| 49-9011 | Mechanical door repairers ¹ | 11 | 9.3 | 25.0 | 1 | (²) |
| 49-9012 | Control and valve installers and repairers, except mechanical door ¹ | 38 | 9.3 | 25.0 | 4 | 1 |
| 49-9021 | Heating, air conditioning, and refrigeration mechanics and installers..... | 270 | 9.3 | 13.3 | 27 | 4 |
| 49-9031 | Home appliance repairers | 50 | 4.8 | 23.8 | 2 | 1 |
| 49-9040 | Industrial machinery installation, repair, and maintenance workers..... | 1,700 | 8.7 | 19.7 | 157 | 33 |
| 49-9041 | Industrial machinery mechanics | 220 | 5.8 | 20.1 | 13 | 4 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 49-9042 | Maintenance and repair workers, general | 1,332 | 9.4 | 19.2 | 134 | 26 |
| 49-9043 | Maintenance workers, machinery..... | 86 | 6.9 | 22.6 | 6 | 2 |
| 49-9044 | Millwrights..... | 59 | 7.0 | 24.3 | 4 | 1 |
| 49-9045 | Refractory materials repairers, except brickmasons .. | 4 | 5.8 | 20.1 | (²) | (²) |
| 49-9050 | Line installers and repairers | 251 | 12.5 | 29.1 | 32 | 7 |
| 49-9051 | Electrical power-line installers and repairers..... | 104 | 10.4 | 31.7 | 11 | 3 |
| 49-9052 | Telecommunications line installers and repairers..... | 147 | 13.9 | 27.2 | 21 | 4 |
| 49-9060 | Precision instrument and equipment repairers..... | 62 | 9.9 | 28.0 | 6 | 2 |
| 49-9061 | Camera and photographic equipment repairers..... | 5 | 9.9 | 28.0 | (²) | (²) |
| 49-9062 | Medical equipment repairers | 29 | 9.9 | 28.0 | 3 | 1 |
| 49-9063 | Musical instrument repairers and tuners | 6 | 9.9 | 28.0 | 1 | (²) |
| 49-9064 | Watch repairers | 4 | 9.9 | 28.0 | (²) | (²) |
| 49-9069 | Precision instrument and equipment repairers, all other..... | 17 | 9.9 | 28.0 | 2 | (²) |
| 49-9090 | Miscellaneous installation, maintenance, and repair workers | 456 | 15.5 | 27.8 | 75 | 13 |
| 49-9091 | Coin, vending, and amusement machine servicers and repairers..... | 46 | 15.9 | 24.2 | 7 | 1 |
| 49-9092 | Commercial divers ¹ | 3 | 10.7 | 15.1 | (²) | (²) |
| 49-9093 | Fabric menders, except garment..... | 3 | 10.7 | 22.7 | (²) | (²) |
| 49-9094 | Locksmiths and safe repairers ¹ | 28 | 15.9 | 33.5 | 5 | 1 |
| 49-9095 | Manufactured building and mobile home installers | 15 | 13.0 | 24.3 | 2 | (²) |
| 49-9096 | Riggers ¹ | 13 | 10.7 | 22.8 | 1 | (²) |
| 49-9097 | Signal and track switch repairers ¹ | 8 | 10.7 | 35.0 | 1 | (²) |
| 49-9098 | Helpers--Installation, maintenance, and repair workers | 163 | 21.5 | 33.8 | 38 | 6 |
| 49-9099 | Installation, maintenance, and repair workers, all other..... | 178 | 10.7 | 22.7 | 20 | 4 |
| 51-0000 | Production occupations | 10,562 | 14.3 | 23.9 | 1,500 | 252 |
| 51-1000 | Supervisors, production workers | 731 | 11.8 | 21.0 | 87 | 15 |
| 51-1011 | First-line supervisors/managers of production and operating workers | 731 | 11.8 | 21.0 | 87 | 15 |
| 51-2000 | Assemblers and fabricators | 1,997 | 18.8 | 25.5 | 382 | 51 |
| 51-2011 | Aircraft structure, surfaces, rigging, and systems assemblers ¹ | 19 | 19.7 | 27.4 | 4 | 1 |
| 51-2020 | Electrical, electronics, and electromechanical assemblers..... | 301 | 15.4 | 23.6 | 44 | 7 |
| 51-2021 | Coil winders, tapers, and finishers | 28 | 15.4 | 23.6 | 4 | 1 |
| 51-2022 | Electrical and electronic equipment assemblers | 221 | 15.4 | 23.6 | 33 | 5 |
| 51-2023 | Electromechanical equipment assemblers..... | 52 | 15.4 | 23.6 | 8 | 1 |
| 51-2031 | Engine and other machine assemblers | 46 | 5.4 | 28.0 | 2 | 1 |
| 51-2041 | Structural metal fabricators and fitters ¹ | 90 | 19.7 | 23.5 | 18 | 2 |
| 51-2090 | Miscellaneous assemblers and fabricators | 1,541 | 19.7 | 25.9 | 314 | 40 |
| 51-2091 | Fiberglass laminators and fabricators | 31 | 19.7 | 25.9 | 6 | 1 |
| 51-2092 | Team assemblers | 1,239 | 19.7 | 25.9 | 253 | 32 |
| 51-2093 | Timing device assemblers, adjusters, and calibrators | 3 | 19.7 | 25.9 | 1 | (²) |
| 51-2099 | Assemblers and fabricators, all other | 268 | 19.7 | 25.9 | 54 | 7 |
| 51-3000 | Food processing occupations..... | 725 | 14.8 | 22.8 | 114 | 16 |
| 51-3011 | Bakers | 166 | 19.3 | 23.2 | 34 | 4 |
| 51-3020 | Butchers and other meat, poultry, and fish processing workers | 411 | 13.7 | 21.9 | 60 | 9 |
| 51-3021 | Butchers and meat cutters | 134 | 13.7 | 21.9 | 19 | 3 |
| 51-3022 | Meat, poultry, and fish cutters and trimmers..... | 140 | 13.7 | 21.9 | 21 | 3 |
| 51-3023 | Slaughterers and meat packers | 136 | 13.7 | 21.9 | 20 | 3 |
| 51-3090 | Miscellaneous food processing workers..... | 148 | 12.9 | 24.6 | 20 | 4 |
| 51-3091 | Food and tobacco roasting, baking, and drying machine operators and tenders..... | 18 | 10.8 | 28.6 | 2 | 1 |
| 51-3092 | Food batchmakers..... | 87 | 16.8 | 24.6 | 15 | 2 |
| 51-3093 | Food cooking machine operators and tenders | 43 | 5.6 | 22.9 | 2 | 1 |
| 51-4000 | Metal workers and plastic workers | 2,175 | 9.7 | 24.2 | 207 | 53 |
| 51-4010 | Computer control programmers and operators | 143 | 10.6 | 16.5 | 15 | 2 |
| 51-4011 | Computer-controlled machine tool operators, metal and plastic..... | 126 | 10.6 | 16.5 | 13 | 2 |
| 51-4012 | Numerical tool and process control programmers..... | 18 | 10.6 | 16.5 | 2 | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 51-4020 | Forming machine setters, operators, and tenders, metal and plastic..... | 165 | 10.9 | 26.6 | 17 | 4 |
| 51-4021 | Extruding and drawing machine setters, operators, and tenders, metal and plastic ¹ | 89 | 10.7 | 33.3 | 9 | 3 |
| 51-4022 | Forging machine setters, operators, and tenders, metal and plastic..... | 38 | 11.4 | 14.7 | 4 | 1 |
| 51-4023 | Rolling machine setters, operators, and tenders, metal and plastic ¹ | 37 | 10.7 | 22.6 | 4 | 1 |
| 51-4030 | Machine tool cutting setters, operators, and tenders, metal and plastic..... | 495 | 6.4 | 21.9 | 30 | 11 |
| 51-4031 | Cutting, punching, and press machine setters, operators, and tenders, metal and plastic..... | 251 | 5.7 | 23.2 | 13 | 6 |
| 51-4032 | Drilling and boring machine tool setters, operators, and tenders, metal and plastic ¹ | 42 | 5.8 | 29.2 | 2 | 1 |
| 51-4033 | Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic..... | 101 | 5.6 | 19.1 | 5 | 2 |
| 51-4034 | Lathe and turning machine tool setters, operators, and tenders, metal and plastic..... | 71 | 10.5 | 19.2 | 7 | 1 |
| 51-4035 | Milling and planing machine setters, operators, and tenders, metal and plastic ¹ | 31 | 5.6 | 17.2 | 2 | 1 |
| 51-4041 | Machinists | 370 | 8.4 | 23.3 | 32 | 9 |
| 51-4050 | Metal furnace and kiln operators and tenders | 31 | 9.5 | 22.4 | 3 | 1 |
| 51-4051 | Metal-refining furnace operators and tenders | 17 | 9.5 | 22.4 | 2 | (²) |
| 51-4052 | Pourers and casters, metal | 14 | 9.5 | 22.4 | 1 | (²) |
| 51-4060 | Model makers and patternmakers, metal and plastic ¹ ... | 14 | 11.3 | 31.9 | 2 | (²) |
| 51-4061 | Model makers, metal and plastic ¹ | 8 | 11.3 | 31.9 | 1 | (²) |
| 51-4062 | Patternmakers, metal and plastic ¹ | 6 | 11.3 | 31.9 | 1 | (²) |
| 51-4070 | Molders and molding machine setters, operators, and tenders, metal and plastic..... | 175 | 11.3 | 24.9 | 19 | 4 |
| 51-4071 | Foundry mold and coremakers..... | 17 | 11.3 | 24.9 | 2 | (²) |
| 51-4072 | Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic..... | 157 | 11.3 | 24.9 | 17 | 4 |
| 51-4081 | Multiple machine tool setters, operators, and tenders, metal and plastic ¹ | 97 | 5.8 | 27.6 | 6 | 3 |
| 51-4111 | Tool and die makers | 103 | 6.7 | 22.5 | 7 | 2 |
| 51-4120 | Welding, soldering, and brazing workers..... | 429 | 13.0 | 28.2 | 57 | 12 |
| 51-4121 | Welders, cutters, solderers, and brazers..... | 377 | 13.0 | 28.2 | 50 | 11 |
| 51-4122 | Welding, soldering, and brazing machine setters, operators, and tenders..... | 52 | 13.0 | 28.2 | 7 | 1 |
| 51-4190 | Miscellaneous metalworkers and plastic workers | 153 | 14.7 | 25.1 | 22 | 4 |
| 51-4191 | Heat treating equipment setters, operators, and tenders, metal and plastic ¹ | 26 | 12.1 | 31.4 | 3 | 1 |
| 51-4192 | Lay-out workers, metal and plastic ¹ | 11 | 12.1 | 15.2 | 1 | (²) |
| 51-4193 | Plating and coating machine setters, operators, and tenders, metal and plastic..... | 40 | 23.9 | 21.8 | 9 | 1 |
| 51-4194 | Tool grinders, filers, and sharpeners ¹ | 21 | 12.1 | 32.4 | 2 | 1 |
| 51-4199 | Metal workers and plastic workers, all other | 55 | 10.8 | 23.7 | 5 | 1 |
| 51-5000 | Printing occupations | 413 | 12.8 | 24.0 | 52 | 10 |
| 51-5010 | Bookbinders and bindery workers | 81 | 11.5 | 26.7 | 9 | 2 |
| 51-5011 | Bindery workers..... | 74 | 11.5 | 26.7 | 8 | 2 |
| 51-5012 | Bookbinders | 7 | 11.5 | 26.7 | 1 | (²) |
| 51-5020 | Printers | 332 | 13.1 | 23.3 | 44 | 8 |
| 51-5021 | Job printers..... | 63 | 11.9 | 23.5 | 8 | 1 |
| 51-5022 | Prepress technicians and workers | 78 | 13.6 | 23.4 | 10 | 2 |
| 51-5023 | Printing machine operators | 191 | 13.3 | 23.2 | 26 | 4 |
| 51-6000 | Textile, apparel, and furnishings occupations..... | 929 | 13.1 | 19.5 | 111 | 18 |
| 51-6011 | Laundry and dry-cleaning workers | 235 | 16.3 | 27.2 | 41 | 6 |
| 51-6021 | Pressers, textile, garment, and related materials | 82 | 16.7 | 15.7 | 14 | 1 |
| 51-6031 | Sewing machine operators..... | 256 | 9.7 | 12.4 | 20 | 3 |
| 51-6040 | Shoe and leather workers ¹ | 15 | 14.4 | 25.8 | 2 | (²) |
| 51-6041 | Shoe and leather workers and repairers ¹ | 10 | 16.3 | 31.4 | 2 | (²) |
| 51-6042 | Shoe machine operators and tenders ¹ | 5 | 9.7 | 13.0 | (²) | (²) |
| 51-6050 | Tailors, dressmakers, and sewers | 85 | 6.6 | 17.4 | 5 | 1 |
| 51-6051 | Sewers, hand | 31 | 6.6 | 17.4 | 2 | 1 |
| 51-6052 | Tailors, dressmakers, and custom sewers..... | 54 | 6.6 | 17.4 | 4 | 1 |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|------------------------|----------------------------|--------------|---|------------------|
| | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 51-6060 Textile machine setters, operators, and tenders..... | 148 | 16.8 | 18.0 | 19 | 3 |
| 51-6061 Textile bleaching and dyeing machine operators and tenders..... | 21 | 21.7 | 25.6 | 4 | 1 |
| 51-6062 Textile cutting machine setters, operators, and tenders..... | 28 | 5.3 | 22.1 | 1 | 1 |
| 51-6063 Textile knitting and weaving machine setters, operators, and tenders..... | 46 | 16.8 | 11.2 | 6 | 1 |
| 51-6064 Textile winding, twisting, and drawing out machine setters, operators, and tenders..... | 53 | 21.7 | 18.6 | 9 | 1 |
| 51-6090 Miscellaneous textile, apparel, and furnishings workers | 109 | 10.1 | 25.5 | 10 | 3 |
| 51-6091 Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers ¹ | 23 | 9.1 | 19.4 | 2 | (²) |
| 51-6092 Fabric and apparel patternmakers ¹ | 9 | 9.1 | 46.7 | 1 | (²) |
| 51-6093 Upholsterers ¹ | 53 | 9.1 | 25.4 | 4 | 1 |
| 51-6099 Textile, apparel, and furnishings workers, all other..... | 23 | 13.9 | 23.6 | 3 | 1 |
| 51-7000 Woodworkers..... | 364 | 12.0 | 25.8 | 43 | 9 |
| 51-7011 Cabinetmakers and bench carpenters..... | 148 | 7.3 | 25.1 | 11 | 4 |
| 51-7021 Furniture finishers..... | 34 | 5.8 | 20.2 | 2 | 1 |
| 51-7030 Model makers and patternmakers, wood ¹ | 6 | 18.5 | 29.0 | 1 | (²) |
| 51-7031 Model makers, wood ¹ | 3 | 18.5 | 29.0 | 1 | (²) |
| 51-7032 Patternmakers, wood ¹ | 3 | 18.5 | 29.0 | (²) | (²) |
| 51-7040 Woodworking machine setters, operators, and tenders | 150 | 17.1 | 27.0 | 24 | 4 |
| 51-7041 Sawing machine setters, operators, and tenders, wood..... | 58 | 21.2 | 28.3 | 11 | 2 |
| 51-7042 Woodworking machine setters, operators, and tenders, except sawing..... | 92 | 14.5 | 26.3 | 13 | 2 |
| 51-7099 Woodworkers, all other..... | 26 | 18.5 | 28.9 | 5 | 1 |
| 51-8000 Plant and system operators..... | 320 | 10.4 | 29.5 | 33 | 9 |
| 51-8010 Power plant operators, distributors, and dispatchers..... | 47 | 13.7 | 26.9 | 6 | 1 |
| 51-8011 Nuclear power reactor operators..... | 4 | 13.7 | 26.9 | 1 | (²) |
| 51-8012 Power distributors and dispatchers..... | 8 | 13.7 | 26.9 | 1 | (²) |
| 51-8013 Power plant operators..... | 34 | 13.7 | 26.9 | 5 | 1 |
| 51-8021 Stationary engineers and boiler operators..... | 50 | 8.6 | 18.5 | 4 | 1 |
| 51-8031 Water and liquid waste treatment plant and system operators..... | 94 | 4.8 | 34.4 | 5 | 3 |
| 51-8090 Miscellaneous plant and system operators..... | 129 | 14.5 | 31.0 | 18 | 4 |
| 51-8091 Chemical plant and system operators..... | 60 | 14.5 | 31.0 | 8 | 2 |
| 51-8092 Gas plant operators..... | 11 | 14.5 | 31.0 | 2 | (²) |
| 51-8093 Petroleum pump system operators, refinery operators, and gaugers..... | 43 | 14.5 | 31.0 | 6 | 1 |
| 51-8099 Plant and system operators, all other..... | 15 | 14.5 | 31.0 | 2 | (²) |
| 51-9000 Other production occupations..... | 2,909 | 16.1 | 24.2 | 469 | 70 |
| 51-9010 Chemical processing machine setters, operators, and tenders..... | 87 | 11.8 | 32.0 | 10 | 3 |
| 51-9011 Chemical equipment operators and tenders..... | 49 | 11.8 | 32.0 | 6 | 2 |
| 51-9012 Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders..... | 38 | 11.8 | 32.0 | 4 | 1 |
| 51-9020 Crushing, grinding, polishing, mixing, and blending workers..... | 208 | 13.0 | 26.1 | 27 | 5 |
| 51-9021 Crushing, grinding, and polishing machine setters, operators, and tenders..... | 43 | 13.0 | 26.1 | 6 | 1 |
| 51-9022 Grinding and polishing workers, hand..... | 45 | 13.0 | 26.1 | 6 | 1 |
| 51-9023 Mixing and blending machine setters, operators, and tenders..... | 120 | 13.0 | 26.1 | 16 | 3 |
| 51-9030 Cutting workers..... | 104 | 8.8 | 20.7 | 9 | 2 |
| 51-9031 Cutters and trimmers, hand..... | 29 | 8.8 | 20.7 | 3 | 1 |
| 51-9032 Cutting and slicing machine setters, operators, and tenders..... | 75 | 8.8 | 20.7 | 6 | 2 |
| 51-9041 Extruding, forming, pressing, and compacting machine setters, operators, and tenders..... | 74 | 10.4 | 26.3 | 8 | 2 |
| 51-9051 Furnace, kiln, oven, drier, and kettle operators and tenders..... | 30 | 11.8 | 23.9 | 3 | 1 |
| 51-9061 Inspectors, testers, sorters, samplers, and weighers..... | 508 | 17.0 | 22.8 | 85 | 12 |
| 51-9071 Jewelers and precious stone and metal workers..... | 42 | 13.0 | 19.9 | 6 | 1 |
| 51-9080 Medical, dental, and ophthalmic laboratory technicians. | 87 | 5.4 | 21.9 | 5 | 2 |
| 51-9081 Dental laboratory technicians..... | 50 | 5.4 | 21.9 | 3 | 1 |
| 51-9082 Medical appliance technicians..... | 11 | 5.4 | 21.9 | 1 | (²) |

See footnotes at end of table.

Table VI-5. Total and net replacement rates and annual average replacement needs, 2004-14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004-14 | |
|--|--|------------------------|----------------------------|--------------|---|------------------|
| | | | Total, 2003-4 | Net, 2004-14 | Total | Net |
| 51-9083 | Ophthalmic laboratory technicians | 25 | 5.4 | 21.9 | 1 | 1 |
| 51-9111 | Packaging and filling machine operators and tenders.... | 412 | 19.1 | 19.9 | 79 | 8 |
| 51-9120 | Painting workers | 186 | 15.6 | 26.1 | 29 | 5 |
| 51-9121 | Coating, painting, and spraying machine setters, operators, and tenders..... | 103 | 15.6 | 26.1 | 16 | 3 |
| 51-9122 | Painters, transportation equipment | 53 | 15.6 | 26.1 | 9 | 1 |
| 51-9123 | Painting, coating, and decorating workers | 29 | 15.6 | 26.1 | 5 | 1 |
| 51-9130 | Photographic process workers and processing machine operators..... | 86 | 22.4 | 24.8 | 17 | 2 |
| 51-9131 | Photographic process workers | 32 | 22.4 | 24.8 | 7 | 1 |
| 51-9132 | Photographic processing machine operators | 54 | 22.4 | 24.8 | 10 | 1 |
| 51-9141 | Semiconductor processors ¹ | 45 | 15.4 | 22.1 | 7 | 1 |
| 51-9190 | Miscellaneous production workers | 1,040 | 17.4 | 25.8 | 184 | 27 |
| 51-9191 | Cementing and gluing machine operators and tenders ¹ | 25 | 15.8 | 27.3 | 4 | 1 |
| 51-9192 | Cleaning, washing, and metal pickling equipment operators and tenders ¹ | 18 | 15.8 | 29.2 | 3 | 1 |
| 51-9193 | Cooling and freezing equipment operators and tenders ¹ | 9 | 15.8 | 28.0 | 1 | (²) |
| 51-9194 | Etchers and engravers ¹ | 12 | 13.6 | 27.5 | 2 | (²) |
| 51-9195 | Molders, shapers, and casters, except metal and plastic ¹ | 47 | 15.8 | 23.8 | 7 | 1 |
| 51-9196 | Paper goods machine setters, operators, and tenders | 111 | 13.6 | 21.2 | 15 | 2 |
| 51-9197 | Tire builders..... | 18 | 22.0 | 23.6 | 4 | (²) |
| 51-9198 | Helpers—production workers | 484 | 20.5 | 28.0 | 103 | 14 |
| 51-9199 | Production workers, all other | 319 | 14.3 | 23.9 | 45 | 8 |
| 53-0000 | Transportation and material moving occupations | 10,098 | 17.6 | 22.5 | 1,877 | 227 |
| 53-1000 | Supervisors, transportation and material moving workers .. | 408 | 7.5 | 23.5 | 32 | 10 |
| 53-1011 | Aircraft cargo handling supervisors | 8 | 7.5 | 23.5 | 1 | (²) |
| 53-1021 | First-line supervisors/managers of helpers, laborers, and material movers, hand | 173 | 7.5 | 23.5 | 13 | 4 |
| 53-1031 | First-line supervisors/managers of transportation and material-moving machine and vehicle operators .. | 228 | 7.5 | 23.5 | 18 | 5 |
| 53-2000 | Air transportation occupations | 135 | 5.7 | 26.5 | 8 | 4 |
| 53-2010 | Aircraft pilots and flight engineers | 106 | 5.8 | 26.7 | 7 | 3 |
| 53-2011 | Airline pilots, copilots, and flight engineers..... | 84 | 5.8 | 26.7 | 5 | 2 |
| 53-2012 | Commercial pilots | 22 | 5.8 | 26.7 | 1 | 1 |
| 53-2020 | Air traffic controllers and airfield operations specialists .. | 29 | 5.5 | 25.7 | 2 | 1 |
| 53-2021 | Air traffic controllers ¹ | 24 | 5.5 | 25.7 | 1 | 1 |
| 53-2022 | Airfield operations specialists | 5 | 5.5 | 25.7 | (²) | (²) |
| 53-3000 | Motor vehicle operators | 4,182 | 14.1 | 15.0 | 634 | 63 |
| 53-3011 | Ambulance drivers and attendants, except emergency medical technicians ¹ | 20 | 18.3 | 10.2 | 4 | (²) |
| 53-3020 | Bus drivers | 653 | 14.0 | 21.8 | 99 | 14 |
| 53-3021 | Bus drivers, transit and intercity | 190 | 14.0 | 21.8 | 30 | 4 |
| 53-3022 | Bus drivers, school | 463 | 14.0 | 21.8 | 69 | 10 |
| 53-3030 | Driver/sales workers and truck drivers | 3,232 | 13.6 | 14.0 | 471 | 45 |
| 53-3031 | Driver/sales workers | 451 | 13.6 | 16.3 | 66 | 7 |
| 53-3032 | Truck drivers, heavy and tractor-trailer | 1,738 | 13.6 | 16.3 | 252 | 28 |
| 53-3033 | Truck drivers, light or delivery services | 1,042 | 13.6 | 9.2 | 153 | 10 |
| 53-3041 | Taxi drivers and chauffeurs..... | 188 | 18.3 | 9.2 | 39 | 2 |
| 53-3099 | Motor vehicle operators, all other | 88 | 21.1 | 14.1 | 21 | 1 |
| 53-4000 | Rail transportation occupations | 112 | 4.4 | 25.0 | 5 | 3 |
| 53-4010 | Locomotive engineers and operators ¹ | 40 | 4.4 | 29.3 | 2 | 1 |
| 53-4021 | Railroad brake, signal, and switch operators ¹ | 17 | 4.4 | 10.7 | 1 | (²) |
| 53-4031 | Railroad conductors and yardmasters ¹ | 38 | 4.4 | 27.1 | 2 | 1 |
| 53-4041 | Subway and streetcar operators ¹ | 9 | 4.4 | 25.0 | (²) | (²) |
| 53-4099 | Rail transportation workers, all other | 8 | 4.4 | 25.0 | (²) | (²) |
| 53-5000 | Water transportation occupations | 72 | 8.8 | 33.6 | 7 | 2 |
| 53-5011 | Sailors and marine oilers | 28 | 13.3 | 35.3 | 4 | 1 |
| 53-5020 | Ship and boat captains and operators..... | 32 | 5.9 | 28.5 | 2 | 1 |
| 53-5021 | Captains, mates, and pilots of water vessels | 29 | 5.9 | 28.5 | 2 | 1 |
| 53-5022 | Motorboat operators | 3 | 5.9 | 28.5 | (²) | (²) |

See footnotes at end of table.

Table VI–5. Total and net replacement rates and annual average replacement needs, 2004–14 — Continued
(Numbers in thousands)

| 2004 National Employment Matrix occupation | Total employment, 2004 | Replacement rate (percent) | | Annual average replacement needs, 2004–14 | |
|--|------------------------|----------------------------|--------------|---|------------------|
| | | Total, 2003–4 | Net, 2004–14 | Total | Net |
| 53-5031 Ship engineers ¹ | 12 | 5.9 | 44.0 | 1 | 1 |
| 53-6000 Other transportation workers | 301 | 19.4 | 33.9 | 59 | 10 |
| 53-6011 Bridge and lock tenders ¹ | 4 | 6.3 | 31.4 | (²) | (²) |
| 53-6021 Parking lot attendants | 122 | 23.9 | 29.7 | 28 | 4 |
| 53-6031 Service station attendants | 91 | 26.9 | 44.9 | 25 | 4 |
| 53-6041 Traffic technicians | 6 | 6.3 | 30.1 | (²) | (²) |
| 53-6051 Transportation inspectors | 26 | 6.7 | 23.8 | 2 | 1 |
| 53-6099 Transportation workers, all other | 52 | 6.3 | 30.1 | 4 | 2 |
| 53-7000 Material moving occupations | 4,887 | 22.2 | 27.8 | 1,132 | 136 |
| 53-7011 Conveyor operators and tenders | 53 | 5.2 | 28.7 | 3 | 2 |
| 53-7021 Crane and tower operators | 44 | 7.3 | 21.8 | 3 | 1 |
| 53-7030 Dredge, excavating, and loading machine operators | 92 | 11.5 | 27.5 | 11 | 3 |
| 53-7031 Dredge operators | 3 | 11.5 | 27.5 | (²) | (²) |
| 53-7032 Excavating and loading machine and dragline operators | 86 | 11.5 | 27.5 | 10 | 2 |
| 53-7033 Loading machine operators, underground mining | 4 | 11.5 | 27.5 | (²) | (²) |
| 53-7041 Hoist and winch operators ¹ | 6 | 8.1 | 31.7 | (²) | (²) |
| 53-7051 Industrial truck and tractor operators | 635 | 16.5 | 18.9 | 109 | 12 |
| 53-7060 Laborers and material movers, hand | 3,803 | 24.2 | 29.4 | 961 | 112 |
| 53-7061 Cleaners of vehicles and equipment | 347 | 30.0 | 34.8 | 109 | 12 |
| 53-7062 Laborers and freight, stock, and material movers, hand | 2,430 | 25.3 | 32.7 | 646 | 79 |
| 53-7063 Machine feeders and offbearers | 148 | 15.1 | 27.3 | 20 | 4 |
| 53-7064 Packers and packagers, hand | 877 | 20.1 | 18.7 | 186 | 16 |
| 53-7070 Pumping station operators | 27 | 19.2 | 23.3 | 5 | 1 |
| 53-7071 Gas compressor and gas pumping station operators | 5 | 19.2 | 23.3 | 1 | (²) |
| 53-7072 Pump operators, except wellhead pumpers | 11 | 19.2 | 23.3 | 2 | (²) |
| 53-7073 Wellhead pumpers | 11 | 19.2 | 23.3 | 2 | (²) |
| 53-7081 Refuse and recyclable material collectors | 149 | 18.9 | 25.6 | 30 | 4 |
| 53-7111 Shuttle car operators ¹ | 3 | 13.6 | 24.9 | (²) | (²) |
| 53-7121 Tank car, truck, and ship loaders | 17 | 11.8 | 27.9 | 2 | (²) |
| 53-7199 Material moving workers, all other | 58 | 14.7 | 26.8 | 8 | 2 |

¹ One or more Current Population Survey (CPS) proxy occupations may be used to estimate CPS-based data. (See chapter IV.)

² Less than 500.