

# **APPENDIX D**

**2015 NSCG**

**Coefficient of Variation (CV) Target**

Table 1. 2015 NSCG Desired CV Levels - Broad Occupation by Demographic Group

| BROAD OCCUPATION                        | DEMOGRAPHIC GROUP  |       |       |           |          |       |  |       |          |
|---|--|-------|-------|-----------|----------|-------|--|-------|----------|
|   | <u>USCAB or High Probability<br/>of U.S. Earned Degree</u> |       |       |           |          |       | <u>Low Probability<br/>of U.S. Earned Degree</u> |       |          |
|   | Hispanic   | Black | Asian | AIAN/NHPI | Disabled | White | Hispanic   | Asian | Residual |
| Mathematician                           | 8.1%   | 6.6%  | 5.0%  | 11.3%     | 8.1%     | 2.9%  | 19.7%  | 4.4%  | 6.4%     |
| Computer Scientists                     | 8.0%   | 10.0% | 9.0%  | 16.0%     | 18.4%    | 2.5%  | 22.0%  | 6.6%  | 6.4%     |
| Life Scientists                         | 11.1%  | 11.8% | 12.1% | 25.8%     | 15.5%    | 4.0%  | 21.0%  | 6.9%  | 7.3%     |
| Physical Scientists                     | 10.0%  | 12.0% | 11.0% | 18.0%     | 20.4%    | 4.5%  | 24.0%  | 8.6%  | 8.4%     |
| Social Scientists, Except Psychologists | 13.0%  | 14.6% | 15.5% | 30.0%     | 21.1%    | 5.5%  | 30.0%  | 17.8% | 15.6%    |
| Psychologists                           | 13.3%  | 18.7% | 15.8% | 25.0%     | 16.1%    | 5.1%  | 24.1%  | 30.0% | 21.9%    |
| Engineers                               | 5.6%   | 8.0%  | 4.0%  | 15.3%     | 7.8%     | 4.0%  | 12.4%  | 5.0%  | 6.7%     |
| Health-Related Occupations              | 11.3%  | 16.7% | 13.8% | 23.0%     | 14.1%    | 3.1%  | 22.1%  | 28.0% | 19.9%    |
| S&E-Related non-Health Occupations      | 11.3%  | 16.7% | 13.8% | 23.0%     | 14.1%    | 3.1%  | 22.1%  | 28.0% | 19.9%    |
| Post secondary teacher, S&E FOD         | 6.2%   | 6.9%  | 6.3%  | 14.9%     | 8.9%     | 4.0%  | 15.7%  | 6.6%  | 7.5%     |
| Post secondary teacher, Non-S&E FOD     | 20.7%  | 15.9% | 26.1% | 29.2%     | 17.5%    | 5.4%  | 29.5%  | 20.3% | 11.7%    |
| Secondary Teacher, S&E FOD              | 3.4%   | 3.1%  | 3.7%  | 7.3%      | 4.8%     | 4.0%  | 8.9%   | 3.9%  | 4.8%     |
| Secondary teacher, Non-S&E              | 20.7%  | 15.9% | 26.1% | 29.2%     | 17.5%    | 5.4%  | 29.5%  | 20.3% | 11.7%    |
| Non-S&E High Interest Occup, S&E FOD    | 3.2%   | 4.4%  | 2.4%  | 8.1%      | 4.3%     | 2.4%  | 6.6%   | 2.9%  | 3.8%     |
| Non-S&E Low Interest Occup, S&E FOD     | 3.7%   | 3.4%  | 4.0%  | 7.6%      | 5.1%     | 4.3%  | 9.2%   | 4.2%  | 5.1%     |
| Non-S&E Occupations, Non-S&E FOD        | 20.7%  | 15.9% | 26.1% | 29.2%     | 17.5%    | 5.4%  | 29.5%  | 20.3% | 11.7%    |
| Not Working, S&E FOD                    | 6.8%   | 6.9%  | 6.1%  | 13.2%     | 6.2%     | 2.8%  | 16.3%  | 7.3%  | 7.2%     |
| Not Working, Non-S&E FOD                | 26.0%  | 24.3% | 19.2% | 30.0%     | 13.5%    | 8.6%  | 30.0%  | 17.0% | 12.0%    |

Notes:

- (1) CV = Coefficient of Variation
- (2) The total row and column CVs are approximated by the assumption of strata independence.
- (3) USCAB = U.S. Citizen at Birth
- (4) AIAN/NHPI = American Indian, Alaska Native / Native Hawaiian, Pacific Islander
- (5) S&E = Science and Engineering
- (6) FOD = Field of Degree

**Table 2. 2015 NSCG Desired CV Levels - Broad Occupation by Highest Degree Level**

| <b>BROAD OCCUPATION</b>                                   | <b>HIGHEST DEGREE LEVEL</b> |                 |                  |
|---|-----------------------------|-----------------|------------------|
|   | <b>Bachelor's</b>           | <b>Master's</b> | <b>Doctorate</b> |
| <b>Mathematician</b>                                      | 2.7%                        | 3.4%            | 10.7%            |
| <b>Computer Scientist</b>                                 | 3.5%                        | 3.9%            | 7.7%             |
| <b>Life Scientists</b>                                    | 4.5%                        | 5.1%            | 6.6%             |
| <b>Physical Scientists</b>                                | 5.5%                        | 5.9%            | 8.9%             |
| <b>Social Scientists, Except Psychologists</b>            | 6.4%                        | 6.9%            | 12.5%            |
| <b>Psychologists</b>                                      | 15.4%                       | 4.9%            | 16.4%            |
| <b>Engineers</b>  | 3.0%                        | 4.0%            | 9.7%             |
| <b>Health-Related Occupations</b>                         | 13.4%                       | 2.9%            | 14.4%            |
| <b>S&amp;E-Related non-Health Occupations</b>             | 13.4%                       | 2.9%            | 14.4%            |
| <b>Post Secondary Teacher, S&amp;E FOD</b>                | 3.0%                        | 4.0%            | 14.7%            |
| <b>Post Secondary Teacher, Non-S&amp;E FOD</b>            | 20.5%                       | 10.0%           | 14.0%            |
| <b>Secondary Teacher, S&amp;E FOD</b>                     | 4.0%                        | 4.0%            | 7.3%             |
| <b>Secondary teacher, non-S&amp;E FOD</b>                 | 20.5%                       | 10.0%           | 14.0%            |
| <b>Non-S&amp;E High Interest Occupations, S&amp;E FOD</b> | 1.7%                        | 2.2%            | 5.2%             |
| <b>Non-S&amp;E Low Interest Occupations, S&amp;E FOD</b>  | 4.3%                        | 4.3%            | 7.6%             |
| <b>Non-S&amp;E Occupation, Non-S&amp;E FOD</b>            | 20.5%                       | 10.0%           | 14.0%            |
| <b>Not Working, S&amp;E FOD</b>                           | 4.0%                        | 5.0%            | 13.0%            |
| <b>Not Working, Non-S&amp;E FOD</b>                       | 13.4%                       | 15.0%           | 19.0%            |

Notes:

(1) CV = Coefficient of Variation

(2) The total row and column CVs are approximated by the assumption of strata independence.

(3) S&E = Science and Engineering

(4) FOD = Field of Degree

(5) The Bachelor's degree column includes respondents with a Professional degree

**Table 3. 2015 NSCG Desired CV Levels - Detailed Occupation by Highest Degree Level**

| DETAILED OCCUPATION                        | HIGHEST DEGREE LEVEL |          |           |
|--|----------------------|----------|-----------|
|  | Bachelor's           | Master's | Doctorate |
| Mathematician                              | 2.7%                 | 3.4%     | 10.7%     |
| Computer Scientist                         | 3.5%                 | 3.9%     | 7.7%      |
| Biological/medical scientists              | 5.5%                 | 6.0%     | 7.0%      |
| Agriculture and other life scientists      | 5.5%                 | 5.8%     | 6.7%      |
| Chemists, except biochemists               | 3.0%                 | 4.0%     | 12.3%     |
| Physicists and other physical scientists   | 3.0%                 | 4.0%     | 13.0%     |
| Psychologists                              | 15.4%                | 4.9%     | 16.4%     |
| Economics                                  | 3.1%                 | 4.0%     | 12.0%     |
| Other social scientists                    | 3.0%                 | 4.0%     | 13.4%     |
| Chemical engineers                         | 3.0%                 | 4.0%     | 25.8%     |
| Civil and architectural engineers          | 3.0%                 | 4.0%     | 30.0%     |
| Electrical and computer engineers          | 3.0%                 | 4.0%     | 14.2%     |
| Mechanical engineers                       | 3.0%                 | 4.0%     | 27.2%     |
| Other engineers                            | 6.0%                 | 8.0%     | 14.9%     |
| Health-Related Occupations                 | 13.4%                | 2.9%     | 14.4%     |
| S&E-Related non-Health Occupations         | 13.4%                | 2.9%     | 14.4%     |
| Post secondary teacher, S&E FOD            | 3.0%                 | 4.0%     | 14.7%     |
| Post secondary teacher, Non-S&E FOD        | 20.5%                | 10.0%    | 14.0%     |
| Secondary Teacher, S&E FOD                 | 4.0%                 | 4.0%     | 7.3%      |
| Secondary Teacher, Non-S&E FOD             | 20.5%                | 10.0%    | 14.0%     |
| Non-S&E High Interest Occupations, S&E FOD | 1.7%                 | 2.2%     | 5.2%      |
| Non-S&E Low Interest Occupations, S&E FOD  | 4.3%                 | 4.3%     | 7.6%      |
| Non-S&E Occupation, Non-S&E FOD            | 20.5%                | 10.0%    | 14.0%     |
| Not Working, S&E FOD                       | 4.0%                 | 5.0%     | 13.0%     |
| Not Working, Non-S&E FOD                   | 13.4%                | 15.0%    | 19.0%     |

Notes:

- (1) CV = Coefficient of Variation
- (2) The total row and column CVs are approximated by the assumption of strata independence.
- (3) S&E = Science and Engineering
- (4) FOD = Field of Degree
- (5) The Bachelor's degree column includes respondents with a Professional degree

**Table 4. 2015 NSCG Desired CV Levels for Young Graduates Oversampling Strata - Broad Occupation by Demographic Group**

| BROAD OCCUPATION                                    | DEMOGRAPHIC GROUP                               |       |       |           |          |       |                                       |        |          |
|---|---|-------|-------|-----------|----------|-------|---------------------------------------|--------|----------|
|   | USCAB or High Probability of U.S. Earned Degree |       |       |           |          |       | Low Probability of U.S. Earned Degree |        |          |
|   | Hispanic  | Black | Asian | AIAN/NHPI | Disabled | White | Hispanic                              | Asian  | Residual |
| <b>Mathematician</b>                                | 43.8%   | 49.8% | 18.6% | 72.7%     | 98.2%    | 24.3% | 100.0%                                | 100.0% | 100.0%   |
| <b>Computer Scientists</b>                          | 15.6%   | 14.4% | 6.0%  | 25.0%     | 27.0%    | 5.1%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Life Scientists</b>                              | 20.2%   | 23.0% | 15.9% | 45.4%     | 68.8%    | 8.3%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Physical Scientists</b>                          | 30.7%   | 34.6% | 18.2% | 46.6%     | 41.6%    | 9.8%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Social Scientists, Except Psychologists</b>      | 33.2%   | 32.4% | 20.0% | 63.0%     | 100.0%   | 12.1% | 100.0%                                | 100.0% | 100.0%   |
| <b>Psychologists</b>                                | 24.4%   | 40.9% | 25.5% | 64.6%     | 74.0%    | 13.6% | 100.0%                                | 100.0% | 100.0%   |
| <b>Engineers</b>                                    | 11.4%   | 12.1% | 6.4%  | 19.8%     | 27.5%    | 3.7%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Health-Related Occupations</b>                   | 10.1%   | 9.8%  | 9.5%  | 15.2%     | 18.2%    | 3.1%  | 100.0%                                | 100.0% | 100.0%   |
| <b>S&amp;E-Related non-Health Occupations</b>       | 10.8%   | 12.3% | 13.9% | 22.3%     | 24.6%    | 5.8%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Post secondary teacher, S&amp;E FOD</b>          | 17.1%   | 21.1% | 13.3% | 31.7%     | 38.0%    | 8.6%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Secondary Teacher, S&amp;E FOD</b>               | 19.9%   | 21.7% | 24.2% | 39.2%     | 69.1%    | 9.7%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Non-S&amp;E High Interest Occup, S&amp;E FOD</b> | 10.8%   | 11.0% | 6.8%  | 20.5%     | 25.6%    | 4.6%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Non-S&amp;E Low Interest Occup, S&amp;E FOD</b>  | 7.5%  | 7.8%  | 7.0%  | 16.2%     | 20.6%    | 2.9%  | 100.0%                                | 100.0% | 100.0%   |
| <b>Not Working, S&amp;E FOD</b>                     | 28.8%   | 34.7% | 12.8% | 94.8%     | 51.3%    | 21.0% | 100.0%                                | 100.0% | 100.0%   |

Notes:

(1) CV = Coefficient of Variation

(2) The total row and column CVs are approximated by the assumption of strata independence.

(3) USCAB = U.S. Citizen at Birth

(4) AIAN/NHPI = American Indian, Alaska Native / Native Hawaiian, Pacific Islander

(5) S&E = Science and Engineering

(6) FOD = Field of Degree

**Table 5. 2015 NSCG Desired CV Levels for Young Graduates Oversampling Strata - Broad Occupation by Highest Degree Level**

| BROAD OCCUPATION                           | HIGHEST DEGREE LEVEL |          |
|--|----------------------|----------|
|  | Bachelor's           | Master's |
| Mathematician                              | 24.6%                | 14.2%    |
| Computer Scientist                         | 4.6%                 | 4.4%     |
| Life Scientists                            | 10.1%                | 8.1%     |
| Physical Scientists                        | 12.0%                | 8.8%     |
| Social Scientists, Except Psychologists    | 12.8%                | 9.8%     |
| Psychologists                              | 20.5%                | 11.4%    |
| Engineers                                  | 2.7%                 | 3.7%     |
| Health-Related Occupations                 | 3.0%                 | 3.7%     |
| S&E-Related non-Health Occupations         | 5.0%                 | 6.7%     |
| Post Secondary Teacher, S&E FOD            | 9.2%                 | 7.0%     |
| Secondary Teacher, S&E FOD                 | 9.5%                 | 12.0%    |
| Non-S&E High Interest Occupations, S&E FOD | 3.8%                 | 6.4%     |
| Non-S&E Low Interest Occupations, S&E FOD  | 2.4%                 | 7.2%     |
| Not Working, S&E FOD                       | 12.5%                | 15.5%    |

Notes:

- (1) CV = Coefficient of Variation
- (2) The total row and column CVs are approximated by the assumption of strata independence.
- (3) S&E = Science and Engineering
- (4) FOD = Field of Degree
- (5) The Bachelor's degree column includes respondents with a Professional degree

**Table 6. 2015 NSCG Desired CV Levels for Young Graduates Oversampling Strata - Detailed Occupation by Highest Degree Level**

| DETAILED OCCUPATION                        | HIGHEST DEGREE LEVEL |          |
|--|----------------------|----------|
|  | Bachelor's           | Master's |
| Mathematician                              | 24.6%                | 14.2%    |
| Computer Scientist                         | 4.6%                 | 4.4%     |
| Biological/medical scientists              | 10.4%                | 8.8%     |
| Agriculture and other life scientists      | 25.9%                | 18.7%    |
| Chemists, except biochemists               | 14.5%                | 18.9%    |
| Physicists and other physical scientists   | 18.4%                | 10.3%    |
| Psychologists                              | 20.5%                | 11.4%    |
| Economics                                  | 37.3%                | 22.6%    |
| Other social scientists                    | 14.1%                | 11.0%    |
| Chemical engineers                         | 9.3%                 | 13.8%    |
| Civil and architectural engineers          | 6.9%                 | 7.6%     |
| Electrical and computer engineers          | 8.9%                 | 10.8%    |
| Mechanical engineers                       | 5.9%                 | 8.9%     |
| Other engineers                            | 6.2%                 | 5.9%     |
| Health-Related Occupations                 | 3.0%                 | 3.7%     |
| S&E-Related non-Health Occupations         | 5.0%                 | 6.7%     |
| Post secondary teacher, S&E FOD            | 9.2%                 | 7.0%     |
| Secondary Teacher, S&E FOD                 | 9.5%                 | 12.0%    |
| Non-S&E High Interest Occupations, S&E FOD | 3.8%                 | 6.4%     |
| Non-S&E Low Interest Occupations, S&E FOD  | 2.4%                 | 7.2%     |
| Not Working, S&E FOD                       | 12.5%                | 15.5%    |

Notes:

- (1) CV = Coefficient of Variation
- (2) The total row and column CVs are approximated by the assumption of strata independence.
- (3) S&E = Science and Engineering
- (4) FOD = Field of Degree
- (5) The Bachelor's degree column includes respondents with a Professional degree