

# **APPENDIX D**

**2017 NSCG**

**Coefficient of Variation (CV) Target**

Table 1. 2017 NSCG Desired CV Levels - Broad Occupation by Demographic Group

BROAD OCCUPATION	DEMOGRAPHIC GROUP								
	<u>USCAB or High Probability of U.S. Earned Degree</u>						<u>Low Probability 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. 2017 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. 2017 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. 2017 NSCG Desired CV Levels for Young Graduate 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
Mathematician	43.8%	49.8%	18.6%	72.7%	98.2%	24.3%	100.0%	100.0%	100.0%
Computer Scientists	15.6%	14.4%	6.0%	25.0%	27.0%	5.1%	100.0%	100.0%	100.0%
Life Scientists	20.2%	23.0%	15.9%	45.4%	68.8%	8.3%	100.0%	100.0%	100.0%
Physical Scientists	30.7%	34.6%	18.2%	46.6%	41.6%	9.8%	100.0%	100.0%	100.0%
Social Scientists, Except Psychologists	33.2%	32.4%	20.0%	63.0%	100.0%	12.1%	100.0%	100.0%	100.0%
Psychologists	24.4%	40.9%	25.5%	64.6%	74.0%	13.6%	100.0%	100.0%	100.0%
Engineers	11.4%	12.1%	6.4%	19.8%	27.5%	3.7%	100.0%	100.0%	100.0%
Health-Related Occupations	10.1%	9.8%	9.5%	15.2%	18.2%	3.1%	100.0%	100.0%	100.0%
S&E-Related non-Health Occupations	10.8%	12.3%	13.9%	22.3%	24.6%	5.8%	100.0%	100.0%	100.0%
Post secondary teacher, S&E FOD	17.1%	21.1%	13.3%	31.7%	38.0%	8.6%	100.0%	100.0%	100.0%
Secondary Teacher, S&E FOD	19.9%	21.7%	24.2%	39.2%	69.1%	9.7%	100.0%	100.0%	100.0%
Non-S&E High Interest Occup, S&E FOD	10.8%	11.0%	6.8%	20.5%	25.6%	4.6%	100.0%	100.0%	100.0%
Non-S&E Low Interest Occup, S&E FOD	7.5%	7.8%	7.0%	16.2%	20.6%	2.9%	100.0%	100.0%	100.0%
Not Working, S&E FOD	28.8%	34.7%	12.8%	94.8%	51.3%	21.0%	100.0%	100.0%	100.0%

Notes:

(1) CV = Coefficient of Variation

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

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**Table 5. 2017 NSCG Desired CV Levels for Young Graduate 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. 2017 NSCG Desired CV Levels for Young Graduate 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