SF-83-1 SUPPORTING STATEMENT: SECTION B

for the

2025 National Survey of College Graduates

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B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. UNIVERSE AND SAMPLE DESCRIPTIONS

The target population for the National Survey of College Graduates (NSCG) includes individuals who meet the following criteria:

- Earned a bachelor's degree or higher,
- Are not institutionalized and reside in the United States or Puerto Rico as of the survey reference date, and
- Are younger than 76 years as of the survey reference date.

When the American Community Survey (ACS) replaced the decennial census long form beginning with the 2010 Census, the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) began using the ACS as the sampling frame for the NSCG and implemented a rotating panel design. In this design, a new ACS-based sample of college graduates is selected and followed for four biennial cycles before the panel is rotated out of the survey. The use of the ACS as a sampling frame, including the field of degree questionnaire item included on the ACS, allows NCSES to efficiently sample subpopulations of interest (e.g., the science and engineering [S&E] workforce). The NSCG design oversamples cases in small cells of interest to analysts, including underrepresented minorities, persons with disabilities, and foreignborn individuals. The goal of this oversampling effort is to provide adequate sample for NSF's congressionally mandated reports on *Science and Engineering Indicators* and *Women, Minorities, and Persons with Disabilities in Science and Engineering*.

Under the rotating panel design, the 2025 NSCG production sample will include 161,000 sample cases which comprises:

- 1) Returning sample from the 2023 NSCG (originally selected from the 2017 ACS);
- 2) Returning sample from the 2023 NSCG (originally selected from the 2019 ACS);
- 3) Returning sample from the 2023 NSCG (originally selected from the 2021 ACS); and
- 4) New sample selected from the 2023 ACS.

About 59,000 new sample cases will be selected from the 2023 ACS.

The remaining 102,000 cases will be selected from the set of returning sample members. While most of the returning sample cases are respondents from the 2023 NSCG survey cycle, about 24,500 nonrespondents from the 2023 NSCG survey cycle will be included in the 2025 NSCG sample. These 24,500 cases are individuals who responded in their initial NSCG survey cycle but did not respond during the 2023 cycle. As was the case in prior years, previous-cycle nonrespondents are being included in the 2025 NSCG sample in an effort to reduce the potential for nonresponse bias in the NSCG survey estimates. (Except for cases that are temporarily ineligible, cases that do not respond during their first NSCG cycle are dropped from future cycles.)

NSCG Year			Total					
	Old Coho	Old Cohort (Returning San						
2019	2011 ACS 2013 ACS		2015 ACS	2017 ACS				147,000
	(n ≈ 27,500)	(n ≈ 24,500)	(n ≈ 29,000)	(n ≈ 66,000)				
		Old Cohort (Returning Sample) New Cohort						
2021		2013 ACS	2015 ACS	2017 ACS	2019 ACS			164,000
		(n ≈ 24,000)	(n ≈ 28,500)	(n ≈ 37,000)	(n ≈ 74,000)			
			Old Cohort (Returning Sample) New Cohort					
2023			2015 ACS	2017 ACS	2019 ACS	2021 ACS		161,000
			(n ≈ 28,000)	(n ≈ 36,500)	(n ≈ 41,500)	(n ≈ 55,000)		
			Old Cohort (Returning Sample) N				New Cohort	
2025				2017 ACS	2019 ACS	2021 ACS	2023 ACS	161,000
				(n ≈ 36,000)	(n ≈ 40,500)	(n ≈ 25,500)	(n ≈ 59,000)	

The table below provides an overview of the NSCG sample sizes for the 2019 through 2025 NSCG survey cycles.

There are several advantages of this rotating panel sample design. It: 1) permits benchmarking of estimates to population totals derived from the sample using the ACS; 2) maintains the sample sizes of and allows cross-sectional estimation for small populations of scientists and engineers of great interest such as underrepresented minorities, persons with disabilities, and non-U.S. citizens; 3) provides an oversample of young graduates to allow continued detailed estimation of the recent college graduates population; and 4) permits longitudinal analysis of the retained cases.

Using the 2023 NSCG final response rate as a basis (61% unweighted, 61% weighted), NCSES estimates the final response rate for the 2025 NSCG to be 60 to 65 percent unweighted.

2. INFORMATION COLLECTION PROCEDURES

Sample Design and Selection

The 2025 NSCG target population includes all U.S. residents under age 76 with at least a bachelor's degree prior to 1 January 2024. The new sample portion of the 2025 NSCG will be representative of this whole target population, for the most part.¹ The returning sample, on the

¹ The 2025 NSCG new sample is not completely representative of the population that first earned a degree during 2023, the ACS data collection year. For example, an ACS sample person that earned their first degree in May 2023, would be eligible for selection into the NSCG if their household was interviewed by ACS in July 2023 (i.e., after they earned their first degree). However, they would not be eligible for selection into the NSCG if their household was interviewed by ACS in March 2023 (i.e., before they earned their first degree). A weighting adjustment is implemented to correct for this

other hand, will be representative of a portion of the target population, namely, U.S. residents under age 76 with at least a bachelor's degree prior to 1 January 2022. The returning sample also does not include recent immigrants who have come to the United States since 2021.

As part of the 2025 NSCG sample selection, the returning sample portion of the NSCG sampling frame will be sampled separately from the new sample portion.

The 2025 NSCG returning sample will be selected with certainty from the eligible cases on the returning sampling frame, with one caveat: cases that were hard refusals in the previous cycle are not selected.

The sample selection for the 2025 NSCG new sample will use the same set of stratification variables compared to what was used in the 2023 NSCG to align with key analytical reporting domains. Specifically, the design has a higher sample allocation for underrepresented minorities and recent degree earners. In addition, this design has 273 sampling cells. The stratification variables will be formed using response information from the 2023 ACS. The levels of the 2025 NSCG sample stratification variables are as follows:

<u>Highest Degree Level</u>

- Bachelor's degree or professional degree
- Master's degree
- Doctorate degree

Bachelor's Degree Field

- Computer and mathematical sciences
- Biological, agricultural, and environmental life sciences
- Physical and related sciences
- Social and related sciences
- Engineering
- S&E-related fields
- Non-S&E fields
- Not working

Occupation

- Computer and mathematical sciences
- Biological, agricultural, and environmental life sciences
- Physical and related sciences
- Social and related sciences
- Engineering
- S&E-related fields
- Non-S&E fields
- Not working

Underrepresented Minority

• Underrepresented minority (A case is considered an underrepresented minority if they are Hispanic, Black, or American Indian/Alaskan Native.)

undercoverage.

• Not an underrepresented minority (i.e., Asian, Native Hawaiian/Other Pacific Islander, White, and two or more races)

<u>Recent Degree</u>

- Likely earned a degree within the last five years
- Likely did NOT earn a degree within the last five years

<u>Nativity</u>

- U.S. born
- Foreign born

The stratification variables are collapsed in different ways across variables. Occupation is collapsed to two levels (S&E/S&E-related and non-S&E) for bachelor's/professional cases and completely collapsed for doctorate cases. Degree field is collapsed to two levels (S&E/S&E-related and non-S&E) for master's cases. Underrepresented minorities are collapsed with "not underrepresented minorities" for foreign-born cases. Nativity status, underrepresented minority status, and recent degree earner status are completely collapsed for disabled cases. Bachelor's degree field is completely collapsed for doctorate disabled cases. The multiway cross-classification of these stratification variables produces approximately 272 non-empty sampling cells. After stratification, cases will be sorted by sex, race/ethnicity, detailed occupation, age group, and disability status within each sampling cell to add a layer of implicit stratification for other key variables. This design ensures that the cells needed to produce the small demographic/degree field groups for the congressionally mandated reports on *Science and Engineering* (see 42 U.S.C. 1885d) will be maintained. The sample allocation will be determined based on reliability requirements for key NSCG analytical domains.

The 2023 ACS-based sampling frame for the 2025 NSCG new sample portion is expected to include about 1 million cases representing the college-educated population of more than 81 million residing in the United States as of 2023. From this sampling frame, 59,000 new sample cases will be selected based on the sample allocation reliability requirements discussed in the previous paragraphs. Cases will be selected using systematic probability proportional to size sampling.

Weighting Procedures

Final estimates from the 2025 NSCG will be weighted. As was the case with sample selection, the weighting adjustments will be done separately for the new sample cases and separately for each panel within the returning sample cases. The goal of the separate weighting processes is to produce final weights for each panel that reflect each panel's respective population. To produce the final weights, each case will start with a base weight that accounts for the probability of selection into the 2025 NSCG sample. This base weight reflects the differential sampling across strata.

Weighting Adjustment for Base Post-Stratification (New Cohort only)

The variance of certain variables (sex, race, and age) that are used to sort the frame for systematic sampling is overestimated when using the base weights due to implicit stratification. To reduce this bias, we will perform a base post-stratification adjustment to the base weights so

that the weighted sample totals within each adjustment cell is equal to the weighted frame totals. The adjustment cells will be defined as the stratification cells broken down by sex (two levels: male vs. female), race (two levels: Black vs. non-Black), and age (two levels: under 40 vs. 40 and over). We will collapse adjustment cells with fewer than five sample cases.

Weighting Adjustment for Survey Nonresponse

Following the weighting methodology used in the 2023 NSCG, we will use propensity modeling to account and adjust for unit nonresponse. Propensity modeling uses logistic regression and characteristics available for all sample cases, such as prior survey responses and paradata, to predict likelihood of response. One advantage of this approach over the cell-collapsing approach used in the 1990 and 2000 decades of the NSCG is that it provides nuanced weights for each individual that better adjust for nonresponse bias. An additional advantage to using propensity modeling is the avoidance of creating complex noninterview cell collapsing rules.

Using the sampling frame variables that exist for both respondents and nonrespondents, a logistic regression model will predict response (dependent variable). The propensities output from the model will be used to categorize cases into cells of approximately equal size, with similar response propensities in each cell. The nonresponse weighting adjustment factor will be calculated as the ratio of the overall weighted population to the weighted number of respondents within each cell.

Weighting Adjustment for Extreme Weights

After the completion of these weighting steps, some of the weights may be relatively large compared to other weights in the same analytical domain (e.g., sex, demographic group by broad occupation group, highest degree level by detailed occupation group, and young graduate oversample by demographic group by broad occupation group.) Because extreme weights can greatly increase the variance of survey estimates, weight trimming options will be implemented. When weight trimming is used, the final survey estimates may be biased. However, by trimming the extreme weights, the assumption is that the decrease in variance will offset the associated increase in bias so that the final survey estimates have a smaller mean squared error.

Weighting Adjustment to Reallocate Weights

Due to trimming, the weighted population totals within each of the analytical domains may be less than the pre-trimmed weighted population totals. This leads to biased estimates of totals. To reduce this bias, we will reallocate the trimmed weights through iterative raking to the pretrimmed weight totals in the analytical domains.

Weighting Adjustment for Final Post-Stratification

An additional post-stratification procedure to control to ACS population totals within twelve adjustment cells (defined by the cross of sex and race/ethnicity) will be performed.

Degree Undercoverage Adjustment (New Cohort only)

Given that individuals who earned a degree after their ACS interview date are not eligible for inclusion on the NSCG sampling frame, the 2025 NSCG has undercoverage of individuals with their first degrees earned in 2023. To ensure the 2025 NSCG provides coverage of all individuals with degrees earned during 2023, a weighting adjustment is included in the 2025

NSCG weighting procedures to account for this undercoverage. The Census Bureau conducted research on weighting adjustment methods during the 2023 NSCG cycle, and benchmarking to Integrated Postsecondary Education Data System (IPEDS) totals was the method chosen to adjust the weights for this undercoverage. Cases that first earn a bachelor's degree in the U.S. in 2023 will have their weights ratio adjusted to match IPEDS totals. The weights after the degree undercoverage adjustment serve as the final panel-level weights.

Derivation of Combined Weights

To increase the reliability of estimates of the small demographic/degree field groups used in the congressionally mandated reports on *Science and Engineering Indicators* and *Women*, *Minorities, and Persons with Disabilities in Science and Engineering* (see 42 U.S.C. 1885d), the new sample cases and returning sample cases will be combined. The combined weights will be formed by adjusting the new sample final weights and the returning sample final weights to account for the overlap in target population coverage. Specifically, we will use the Mecatti method to adjust the final weights from each individual panel by dividing the final weights by the number of frames into which a sample person was eligible to be selected. The result will be a combined final weight for all 161,000 NSCG sample cases.

Replicate Weights and Standard Errors

Sets of replicate weights, using the successive difference method, will also be constructed to allow for separate variance estimation for the new sample, for each panel within the returning sample, and for the combined sample. The replicate weights will be used to estimate the standard errors of the 2025 NSCG estimates. This method requires that the sample selection and the estimation procedures be independently carried through (replicated) several times. The dispersion of the resulting replicated estimates then can be used to measure the variance of the full sample.

Questionnaires and Survey Content

As was the case in the 2023 NSCG, we will use three different versions of the 2025 NSCG questionnaire: 1) one for new sample members, 2) one for returning sample members who responded in 2023, and 3) one for returning sample members who did not respond in 2023. The main difference is that the questionnaires for returning sample members do not include questions where the response likely would not change from one cycle to the next. Specifically, the questionnaire for new sample members includes questions about one's degree history and demographic characteristics (e.g., place of birth and reasons for coming to the United States for the first time) that are not asked in the questionnaires for the returning sample members. If these items were not reported by the returning sample members during a prior NSCG data collection, the web instrument will attempt to collect the information this cycle. The two questionnaires for the returning sample members are similar to one another, with the exception of a slightly longer reference period for the questions about recent educational experiences for the previous cycle nonrespondents. For instance, sample members who responded last cycle will be asked if they completed another degree in the past *two* years, whereas sample members who did not respond last cycle will be asked if they completed another degree during the past *six* years.

The core items on the NSCG questionnaires focus on job characteristics, education activities, and demographics. These items are essential for sampling, respondent verification, basic labor force

information, and/or robust analyses of the S&E workforce. They are asked of all respondents each time they are surveyed, as appropriate, to establish the baseline data and to update the respondents' labor force status and changes in employment and other demographic characteristics. Other questionnaire items provide the data needed to satisfy specific policy, research, or data user needs (e.g., federal support of work, job satisfaction, and immigration information).

The 2025 NSCG questionnaires will remain essentially the same as they were for the 2023 NSCG. The one exception is that questions about race and ethnicity will be asked differently. In alignment with the <u>revisions to OMB's Statistical Policy Directive No. 15</u>, the NSCG questionnaire will collect race and ethnicity information using one combined question that includes detailed race and ethnicity categories.

Appendix D provides a list of the proposed questionnaire modifications. Appendix D also summarizes the activities that NCSES will undertake and the guidance NCSES will seek related to the collection and processing of race and ethnicity data. Appendix E is a draft of the 2025 NSCG questionnaire for new sample members. The other two NSCG questionnaires (the questionnaire for previous cycle respondents and the questionnaire for previous cycle nonrespondents) both include a subset of the questions included on the new sample questionnaire and do not appear in the appendix. To view all three questionnaires from past NSCG cycles, see https://www.nsf.gov/statistics/srvygrads/#qs.

Non-Sampling Error Evaluation

The 2025 NSCG Non-Sampling Error Report will provide a nonresponse bias analysis similar to the content of the 2021 NSCG Non-Sampling Error Report.²

<u>Nonresponse Error</u>

Numerous metrics will be computed to motivate a discussion of nonresponse – unit response rates, compound response rates, estimates of key domains, and R-indicators.³ Each of these metrics provides different insights into the issue of nonresponse and will be discussed individually and then summarized together.

Unit response rates are a simple method of quantifying what percentage of the sample population responded to the survey. NCSES uses the AAPOR response rate equation three to calculate response rates, where we estimate what proportion of unknown eligibility cases are actually eligible.

The compound response rate looks at response rates over time and considers how attrition can affect the respondent population. Attrition can lead to biased estimates, particularly for surveys that do not continue to follow nonrespondents in later rounds, if respondents are different (e.g., would provide different information) from nonrespondents. The estimates become

² Creamer, S. F. "Non-Sampling Error Report for the 2021 National Survey of College Graduates," Census Bureau Memorandum from Tersine to Simoncini, February 2023.

³ R-indicators are useful, in addition to response rates and domain estimates, for assessing the potential for nonresponse bias.

representative of the continually responding population over time, as opposed to the full target population.

To understand the potential for nonresponse bias, we will compare estimates using three sets of weights -- (1) base weights for the sample, (2) base weights for the respondents, and (3) nonresponse-adjusted weights for respondents. We will assume there is bias correction if, when comparing to the sample base weight estimates, the difference is smaller for respondents using nonresponse-adjusted weights rather than the base weights.

R-indicators and corresponding standard errors will be provided for each of the four originating sources of sample for the 2025 NSCG (namely, the 2017 ACS, 2019 ACS, 2021 ACS, and 2023 ACS). R-indicators are based on response propensities calculated using a predetermined balancing model ("balancing propensities") to provide information on both how different the respondent population is compared to the full sample population, as well as which variables in the predetermined model are driving the variation in nonresponse. R-indicators close to 1 indicate close correspondence between the respondents and the sample and a lower risk for nonresponse bias.

3. STATISTICAL ACCURACY OF THE COLLECTION

To maximize the overall survey response rate, NCSES and the Census Bureau will implement procedures such as conducting extensive locating efforts and collecting the survey data using two different modes (mail and web). The contact information obtained for the sample members from the 2023 NSCG and the 2023 ACS will be used to locate the sample members in 2025.

Respondent Locating Techniques

The Census Bureau will refine and use a combination of locating and contact methods based on the past surveys to maximize the survey response rate. The U.S. Postal Service's (USPS) automated National Change of Address (NCOA) database will be used to update addresses for the sample. The NCOA incorporates all change of name/address orders submitted to the USPS nationwide and is updated at least biweekly.

Prior to mailing the survey invitation letters to the sample members, the Census Bureau will engage in locating efforts to find good addresses for problem cases ("upfront locating"). The locating efforts will include using such sources as educational institutions, alumni associations, and other publicly available data found on the internet, Directory Assistance for published telephone numbers, and Accurint for address and telephone number searches. The mailings will use the "Return Service Requested" option to ensure that the postal service will provide a forwarding address for any undeliverable mail.

In addition to the "upfront locating" operation, Census will conduct a mid-cycle locating operation. Cases marked Undeliverable As Addressed (UAA) by the USPS will undergo this second round of locating to attempt to capture the correct contact information for survey participants.

Data Collection Methodology

A multimode data collection protocol will be used to improve the likelihood of gaining cooperation from sample cases that are located (see Appendix G). Using the findings from the 2010 NSCG mode effects experiment and the positive results of using the web-first approach in all the NSCG data collection efforts since then, all 2025 NSCG sample cases with a mailable address will initially receive a web invitation letter encouraging response to the survey online. Nonrespondents will be sent a paper questionnaire mailing and will be followed up with emails and "phone tree" messages (automated dialer calls which leave voice messages for respondents). The college-graduate population is web-literate and 91% of the 2023 NSCG respondents completed the survey online.

Motivated by the findings from the incentive experiments included in the 2010 and 2013 NSCG data collection efforts and the positive results from the 2015-2023 NSCG incentive usage, NCSES is planning to use monetary incentives to offset potential nonresponse bias in the 2025 NSCG. We plan to offer a prepaid debit card (\$30) to a subset of highly influential new sample cases at week 1 of the 2025 NSCG data collection effort. "Highly influential" refers to the cases that had large sampling weights and a low response/locating propensity.

We expect to offer this incentive to approximately 11,000 of the 59,000 new sample cases included in the 2025 NSCG. In addition, we will offer a \$30 prepaid debit card incentive to past incentive recipients at week 1 of the 2025 NSCG data collection effort. We expect to offer \$30 debit card incentives to approximately 15,300 of the 102,000 returning sample members. All debit cards will have a six-month usage period at which time the cards will expire, and the unused funds from non-activated debit cards will be returned to the Census Bureau and NCSES.

Within the 2025 NSCG data collection effort, the following steps will be taken to maximize response rates and minimize nonresponse:

- Providing "user friendly" survey materials that are simple to understand and use; and
- Sending attractive material, making a reasonable request of the respondent's time, and making it easy for the respondent to comply.

Although the 2023 cycle used priority mail to improve chances of reaching respondents, in order to reduce survey costs, standard mail will be used in 2025. In addition, although the CATI mode was used in the 2023 cycle, given its limited impact on the overall survey response rate as well as its increasing costs, CATI will not be used in the 2025 NSCG data collection. Respondents do have the option of calling Census and taking the survey by phone with an interviewer who will administer the survey by reading questions and inputting responses using the web-based software.

Please see Appendix F for the NSCG survey mailing materials from last cycle that will be updated for 2025. See Appendix G for the contact strategy timeline, which identifies when the different survey mailing materials will be used throughout the data collection effort.

In past cycles, the NSCG asked respondents to report in which mode (web, paper, or CATI) they would prefer to complete future rounds of the survey. Prior to 2023, respondents who reported a preference for paper received a paper questionnaire in the first week of data collection. In the

2021 cycle, about 17% of returning respondents indicated a preference for paper, but less than 30% of them used the paper questionnaire to respond, while 69% responded online. Given the high rate of web response among people who reported a paper preference, we delayed the paper questionnaire in 2023 until the fifth week of data collection. This gave respondents an opportunity to respond online in weeks 1 and 2, which maximized the number of web respondents. This delay still provided respondents with their preferred mode but attempted to move more people to the web, resulting in faster data processing and less postage paid in mailout and questionnaire returns. As the percentage of web responses has increased and response by other modes has decreased, we removed the mode preference question for 2023, which simplified operations and reduced the number of letter combinations moving forward. We will continue this strategy in 2025. Respondents will receive their first paper questionnaire in week 5 of the operation.

4. TESTING PROCEDURES

Survey Methodological Experiments

Two survey methodological experiments are planned as part of the 2025 NSCG data collection effort. These experiments are designed to help NCSES strive toward the following data collection goals:

- Decrease potential for nonresponse bias in the NSCG survey estimates,
- Increase or maintain response rates,
- Lower overall data collection costs,
- Increase efficiency and reduce respondent burden in the data collection methodology.

The methodological experiments focus on the following:

- Text Messages
- Plain Language Letters

This section introduces the rationale, design, and sample selection for each experiment. Details about the experiments can be found in Appendices H and I.

Text Message Experiment

In 2021, the NSCG first offered respondents the option to opt-in to receive text messages. In 2023, an initial experiment was conducted to evaluate whether text messages could be used in lieu of telephone follow up. The first text messages were sent in week 12, and respondents received up to five text messages, one each subsequent week. Every text message was sent at 5pm eastern time. Results showed that the text messages did not have an impact on response rates or the demographic makeup of respondents. However, individuals that opted in to receive text messages are generally more motivated respondents and many had already responded by week 12. Additionally, research shows that the time of day that text messages are sent can have an impact on response.

Given this, we will test three conditions in 2025 to measure the impact of sending a text message earlier in data collection and on the time of day the text message is sent. The first treatment

group will receive two text messages (weeks 3 and 6) sent at 12pm eastern time. The second treatment group will also receive two text messages (weeks 3 and 6), but the messages will be sent at 5pm eastern time. The control group will not receive any text messages.

Plain Language Letters Experiment

While the NSCG updated their mailing materials following an experiment in the 2017 cycle to make them stand out in the mail and easier to read, the Census Bureau has continued to integrate plain language principles into its communications with the public. Simplifying the letters and providing sample cases with only the information they need makes them easier to read and understand and can also have a positive impact on response rates. This experiment will have two conditions: a control group that will receive letters similar to those used in the 2023 NSCG production and a treatment group that will receive letters developed following plain language principles. This experiment is limited to new sample cases to limit operational complexities and cost.

Designing the Sample Selection for the 2025 NSCG Methodological Experiments

This section describes the sample selection methodology that will be used to create representative samples for each treatment group within the experiments. The eligibility criteria for selection into each of the studies are as follows:

- Text Message Experiment: Cases must have a valid phone number, have previously opted in to receive text messages, and do not have an address in Alaska or Hawaii.
- Plain Language Letters Experiment: Cases must have a mailable address.

The main steps associated with the sample selection for the 2025 NSCG methodological studies are described below.

Step 1: Identification and Use of Sort Variables

Because the samples for the treatment and control groups within the methodological studies will be selected using systematic random sampling, the identification of sort variables and the use of an appropriate sort order is extremely important. Including a particular variable in the sort ensures similar distributions of the levels of that variable across the control and treatment groups.

Text messages will be evaluated in the 2025 NSCG.

• 2025 NSCG sampling cell and sort variables.

Step 2: Select the Samples

For the text message experiment, approximately 30,000⁴ sample cases opted in to receive text messages for the 2025 cycle. This number will be subset to the eligible population (see above for eligibility criteria) and a systematic random sample will evenly divide the cases into a control group and two treatment groups.

For the plain language letters experiment, new sample cases will be subset to the eligible population (see above for eligibility criteria) and a systematic random sample of approximately

⁴ The exact number of cases that opted in will not be known until the sample is selected.

10,000 cases will be selected for the treatment group and 49,000 cases will be selected for the control group.

<u>Minimum Detectable Differences for the 2025 NSCG Methodological Experiments</u> Appendix I provides information on the minimum detectible differences achieved by the sample sizes associated with the 2025 NSCG methodological experiments.

Analysis of Methodological Experiments

As described in Appendix H, we will calculate several metrics to evaluate the effects of the methodological interventions and will compare the metrics between the control group and treatment groups. We will evaluate:

- response rates (overall and by subgroup);
- response distributions for key demographic groups;
- mean squared error (MSE) effect on key estimates;
- time to receive a response; and
- cost per sample case/cost per complete interview (overall and by subgroup).

The subgroups that will be broken out are the ones that primarily drive differences in response rates and include age group, race/ethnicity, highest degree, and young graduate groups.

5. CONTACT INFORMATION

At NCSES, the contacts for statistical aspects of data collection are John Finamore, NCSES Chief Statistician (703) 292-2258, and Lynn Milan, NSCG Project Officer (703) 292-2275.

The U.S. Census Bureau will be responsible for collecting data for the 2025 NSCG, via an Interagency Agreement. Chief consultant on data collection and methodological issues at the Census Bureau is Christine Borman, NSCG Survey Director, (301) 763-4315. The Demographic Statistical Methods Division (DSMD) will manage all NSCG sample selection operations at the Census Bureau. Chief consultant on statistical issues at the Census Bureau is Michael White, DSMD Survey Design Lead, (301) 763-9306.