

SUPPORTING STATEMENT

U.S. Department of Commerce

National Oceanic & Atmospheric Administration

Office of Education, Higher Education Scholarship, Fellowship and Internship Programs

OMB Control No. 0648-0568

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

The potential respondent universe for this collection includes: 1) applicants to and students supported by NOAA grant, scholarship and internship programs and 2) scientists, professors, or other professionals who mentor students supported by NOAA Office of Education (OEd) grant, scholarship and internship programs. These respondents were selected because they applied for grants, scholarships, or fellowships from programs within the NOAA Office of Education. Surveys will be distributed uniformly to all applicants or supported individuals in accordance with the program that they are associated with. All data collected will be used in our reports; there will be no sampling of the respondent universe. Alumni of NOAA OEd grant, scholarship, and internship programs are also included in the respondent universe; however, the alumni population includes individuals who voluntarily provide new information to our online system and is not intended to represent all alumni of each program covered by this information collection.

In terms of response rate, responses to surveys of Hollings and EPP/MSI Undergraduate scholars have yielded participation rates of 80-95%. High response rates are attributed to the timing of survey distribution (i.e., immediately following student events) and reminder emails to respondents. Response rates from mentors ranged from 85-95% previously, and it is anticipated that these rates will persist. We expect similar response rates from the Hollings Preparation Program student and mentor surveys. We intend to employ the same strategies of timing and reminders to ensure the level of response meets our expectations. The expected response rate for the Optional Demographic Data Collection is about 50%. This response rate was estimated because the data is optional. We intend to maximize the response rate by providing a statement to explain why the data is important. A higher response rate would be desirable, however we feel that a 50% response rate would be highly informative for us to understand the demographics of grant, scholarship, and fellowship applicants. NOAA's efforts to diversify the pool of applicants to its programs could be better strategized the more we understand about the diversity of applicants.

The alumni form was deployed online as the Alumni Update System (VAUS) in 2014, at which time a response rate of 60% was targeted. The VAUS provides for at will entry of information by alumni on the Office of Education website. For the 2017 renewal, 162 responses were received in the system for an average of 54 per year, a response rate of approximately 2% $((54 \div 2,800) \times 100)$. In 2020, only 50 responses were received for the fact that all alumni ($n=2,800$) will not voluntarily encounter our website and enter updated information. As a result, the response rate was approximately 2% $((50 \div 2,800) \times 100)$. From 2020-2021, 30 updates were received annually for a response rate of nearly 1% (30 new updates/2,800 alumni). New efforts to increase alumni tracking throughout the NOAA Office of Education are currently underway. We expect a greater number of updates with this information collection, but will leave the expected number of updates at 50 or more per year and the expected response rate at 2%.

In previous collections, the respondent universe only accounted for information collected through voluntary alumni updates. With this collection, the total population of the respondent universe will increase from 2,800 by 1,870 to account for the addition of student and mentor surveys distributed by the Hollings and EPP/MSI Undergraduate Scholarship Programs and the Optional Demographic Data collection distributed generally by the Office of Education. Once data is collected, the following data points will be assessed:

Educational Partnership Program with Minority Serving Institutions (EPP/MSI) Undergraduate Scholarship Program (USP)

- Number of undergraduate scholarship students attending MSIs who pursue graduate work in NOAA-related sciences; and,
- Number of undergraduate scholarship students attending MSIs who are hired by NOAA, NOAA Contractors and other natural resources and science agencies at the Federal, State, local and tribal levels.
- Qualitative feedback from students to assess experience in the program and program impact.
- Qualitative feedback from mentors to assess student performance during internships.

Ernest Hollings Scholarship Program

- Number of Hollings scholarship students who are hired by NOAA and other natural resource and science agencies at the Federal, State, and local levels;
- The number of students from the Hollings Program who teach and become educators in NOAA-related sciences; and,
- The number of Hollings students who pursue graduate work in NOAA-related sciences.
- Qualitative feedback from students to assess experience in the program and program impact.
- Qualitative feedback from mentors to assess student performance during internships.
- The number of Hollings Preparation Program scholars who go on to obtain a Hollings or EPP/MSI undergraduate scholarship or become associated with another NOAA student program.

EPP/MSI Cooperative Science Centers (CSCs)

- Number of EPP/MSI-funded students who are hired by NOAA, NOAA contractors and other environmental, natural resource, and science agencies at the Federal, State, local and tribal levels, in academia and the private sector;

Hollings Preparation Program (HPP)

- Number of HPP students who are awarded the Hollings Scholarship
- Number of HPP students who are awarded the EPP/MSI Undergraduate Scholarship
- Number of HPP students who are hired by NOAA, NOAA contractors and other environmental, natural resource, and science agencies at the Federal, State, local and tribal levels, in academia and the private sector;
- Qualitative feedback from students to assess experience in the program and program impact.
- Qualitative feedback from mentors to assess student performance during internships.

Student Opportunities Optional Demographic Data Collection

- Range of demographic data for applicants, including gender, race/ethnicity, sexual orientation, disability status, and citizenship status
- Range of career/education data for applicants, including Veteran status, career level and degree level
- Summarize collected data to report on the demographics of grant, scholarship and fellowship applicants to satisfy the requirements of [EO 19385](#).

Table 1: Potential respondent universe and expected response rates

Population	Survey Type	Respondent Universe per Year	Expected Response Rate	Expected Number of Respondents per Year
Alumni Update Form	Census	2800	2%	56
Hollings and EPP/MSI Scholar Surveys	Census	160	90%	144
Hollings and EPP/MSI Mentor Surveys	Census	160	90%	144
Hollings Preparation Program Intern Exit Survey	Census	10	90%	9
Hollings Preparation Program Mentor Demographics Survey	Census	10	90%	9
Hollings Preparation Program Mentor Exit Survey	Census	10	90%	9
Hollings Preparation Program Alumni Survey	Census	15	90%	14
Student Opportunities Option Demographic Data Collection	Census	1,500	50%	750
Total				1,137

2. Describe the procedures for the collection of information including:

As there will be censuses of the respective populations, there will be no sampling. The goal of the data collection is to get an account of the number of individuals applying to and supported by NOAA Office of Education grant, scholarship, and internship programs. Qualitative data collected to understand student experiences and performance will be used to improve the program and provide feedback to students.

- Statistical methodology for stratification and sample selection,

The entire respondent universe is considered in this information collection. Collection of information from alumni is at will, and though the entire population of alumni have the opportunity to respond, only those who voluntarily encounter the website and update their information will be considered.

- Estimation procedure

The estimation for respondent totals and response rates are based on historical information collections by the NOAA Office of Education. These efforts have been ongoing and will continue for the foreseeable future. The collection of optional demographic information represents an addition to the NOAA Office of Education collection and our estimation for response rates here is a conservative estimate based on response rates reported by Mackety (2007).

- Degree of accuracy needed for the purpose described in the justification

All data collected will be used in reports for these programs. Because of the nature of the information we are collecting, we make the assumption that respondents are providing truthful information that is mostly accurate. We are unable to computationally determine a minimal sample size or specified confidence level for that sample size since the entire respondent universe is considered.

- Unusual problems requiring specialized sampling procedures,

There are no unusual problems that may require a specialized sampling procedure. We are unable to computationally determine a minimal sample size or specified confidence level for that sample size since the entire respondent universe is considered.

- Any use of periodic (less frequent than annual) data collection cycles to reduce burden.

For student and mentor surveys, information is collected periodically to reduce burden. Students complete surveys when they apply for financial support, after being selected by programs and during their summer internship periods. Mentors are surveyed during and after the summer internship period. Individuals applying for grants, scholarships, and fellowships who complete the Student Opportunities Optional Demographic Data survey will complete this survey upon their application to NOAA Office of Education programs.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield “reliable” data that can be generalized to the universe studied.

Response rates for student and mentor surveys have been historically high. Students are informed, upon acceptance to the program, of the importance of feedback through surveys and are encouraged through verbal communication and email to complete surveys. Providing feedback on student performance is an expectation communicated to mentors prior to them being approved to work with students. Mentors are reminded via email to submit feedback in a timely manner.

In an effort to increase the response rate of alumni updates, OED will conduct an active campaign through social media and email with reminders to non-respondents being sent periodically (e.g., for up to a month after the end of the campaign). The questionnaire has been designed to be respondent-friendly (e.g., almost all questions are closed-ended, worded in a clear, easy to understand manner, and skip logic has been incorporated).

4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.

No tests have been or will be undertaken. The evaluation system is designed to collect data through online survey systems. For Hollings and EPP/MSI, this is the Voluntary Alumni Update System. The online application system is designed to collect student application data.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Individual consulted on statistical design:

- Dr. Natasha White, NOAA Office of Education (natasha.white@noaa.gov, 202-510-7126) developed the statistical design for this project.

Individuals who will oversee data collection and analysis:

- Dr. Natasha White, NOAA Office of Education (natasha.white@noaa.gov, 202-510-7126) will be responsible for overseeing the automated data collection process and for overseeing the functioning and maintenance of the evaluation system for EPP/MSI and Hollings.
- Ashley Turnbull, Education Evaluator (TechGlobal Inc. Contractor) (ashley.turnbull@noaa.gov, 302-536-9372) will be responsible for distributing and summarizing data collected for EPP/MSI and Hollings Scholarship Program student and mentor surveys.
- Steve Copps, Senior Program Analyst, NOAA National Marine Fisheries Service (steve.copps@noaa.gov, 206-526-6140) will be responsible for initiating the automated data collection process and for ensuring the functioning and maintenance of the survey system for Nancy Foster.

- Maddie Kennedy, NOAA Sea Grant (maddie.kennedy@noaa.gov, 240-507-3712) will be responsible for overseeing the collection of information from the Student Opportunities Optional Demographic Data Collection.