Attachment I1

**Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)
Monitoring System**

Table of Contents

Common Collection Categories Questions	Staff and Project Participant Characteristics[1]	Project Implementation Characteristics[2]	Project Outputs[3]
Award Details and Program Activities			
Award Details from FastLane			
Award ID Number[4]	X		
Principal Investigator (PI) Name[4]	X		
PI E-mail Address[4]	X		
PI Phone Number[4]	X		
Institution Name[4]	X		
Award Title[4]	X		
Award Start Date[4]	X		
Award Expiration Date[4]	X		
Alternate Contact Information			
Alternate Contact Name	X		
Alternate Contact E-mail Address	X		
Alternate Contact Phone Number	X		
Academic Schedule			
Academic Term Select one. -Semesters -Quarters -Trimesters	X		
Program Schedule			
Expected/Actual First Scholarship Year	X		
Expected/Actual First Scholarship Semester/Quarter Select one. -Winter -Spring -Summer -Fall	X		
Expected/Actual Final Scholarship Year	X		
Expected/Actual Final Scholarship Semester/Quarter Select one. -Winter -Spring -Summer -Fall	X		

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[1] Elements of these characteristics include: name, address, date of birth, gender, ethnicity, race, disability status, class, major, grade point average, yearly fellowship or stipend amount, and project role.

[2] Elements of these characteristics include: sources and amount of funds, fellowships, scholarships, traineeships, partnerships, training, and research methods.

[3] Elements of these characteristics include: research findings, publications, presentations, degrees granted, and educational materials.

[4] These details are drawn directly from FastLane.

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
Program Activities			
Program Activities Select one or more. -Academic Support Services -Career Counseling/Job Placement -Community Building -Field Trips -Internships -Meetings/Conferences -Mentoring -Recruitment -Research Opportunities -Seminars -Other (please describe) -None		X	
Student Demographics			
Student Details			
Name: First, Middle Initial, Last	X		
E-mail Address	X		
Degree Program Select one. -Associate's -Bachelor's -Concurrent Bachelor's/Master's -Master's -Doctorate	X		
First S-STEM Year	X		
First S-STEM Semester/Quarter Select one. -Winter -Spring -Summer -Fall	X		
Career Goal			X
Student Demographics			
Date of Birth: mm/dd/yyyy	X		
Gender Select one. -Male -Female -Not Reported or Unknown	X		

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
Race Select one or more. -American Indian or Alaska Native -Asian -Black or African American -Native Hawaiian or other Pacific Islander -White -Not Reported or Unknown	X		
Ethnicity Select one. -Hispanic or Latino -Not Hispanic or Latino -Not Reported or Unknown	X		
Disability Select "Yes" if any of the following apply: • Deaf or serious difficulty hearing • Blind or serious difficulty seeing even when wearing glasses • Serious difficulty walking or climbing stairs • Other serious disability related to a physical, mental, or emotional condition -Yes -No -Do not wish to provide	X		
Student Address – Permanent Residence Address Line 1 Address Line 2 City State Zip Code/Postal Code	X		
Student Address – School Residence Address Line 1 Address Line 2 City State Zip Code/Postal Code	X		
Semester/Quarter Details			
Cumulative GPA	X		
S-STEM Scholarship Amount		X	

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
Intended Major Select one. -Astronomy -Biological Sciences -Biology -Biotechnology -Chemistry -Computer Information Science -Computer Science -Computer -Engineering–Aerospace -Engineering–Biological -Engineering–Biomedical -Engineering–Chemical -Engineering–Civil -Engineering–Computer -Engineering–Electrical -Engineering–Environmental -Engineering–Industrial -Engineering–Mechanical -Engineering–Nuclear -Engineering–Petroleum -Engineering–Technology -Engineering -Environmental Sciences -Geosciences -Materials Science -Mathematical Sciences -Mathematics -Physical Sciences -Physics -Technology–Chemical -Technology–Computer -Technology–Information -Technology–Manufacturing -Technology -Other (Please describe)	X		
Class Select one. -Freshman -Sophomore -Junior -Senior -Graduate Student	X		

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
STEM-Related Internship Select one. -Paid -Unpaid -None		X	X
Employment Hours/Week	X	X	
Activities Select one or more. -Academic Support Services -Career Counseling/Job Placement -Community Building -Field Trips -Internships -Meetings/Conferences -Mentoring -Recruitment -Research Opportunities -Seminars -Other (please describe) -None		X	X
Student Status: Select one. -Active -Graduated -Transferred -Leave of Absence -Left Program -Left Program – Switched to a non-STEM major -Left Program – No longer full-time -Left Program – No longer financially eligible -Left Program – Poor academic performance -Left Program – Received maximum scholarship funding -Left Program – Transferred to a different S-STEM award -Left Program – Completed the S-STEM program	X		X
Follow-Up Questions			

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs

Student is Pursuing Further STEM Education:
-Yes
    Intended Major
    Select one.
        -Astronomy
        -Biological Sciences
        -Biology
        -Biotechnology
        -Chemistry
        -Computer Information Science
        -Computer Science
        -Computer
        -Engineering–Aerospace
        -Engineering–Biological
        -Engineering–Biomedical
        -Engineering–Chemical
        -Engineering–Civil
        -Engineering–Computer
        -Engineering–Electrical
        -Engineering–Environmental
        -Engineering–Industrial
        -Engineering–Mechanical
        -Engineering–Nuclear
        -Engineering–Petroleum
        -Engineering–Technology
        -Engineering
        -Environmental Sciences
        -Geosciences
        -Materials Science
        -Mathematical Sciences
        -Mathematics
        -Physical Sciences
        -Physics
        -Technology–Chemical
        -Technology–Computer
        -Technology–Information
        -Technology–Manufacturing
        -Technology
        -Other (Please describe)
-No
			X

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs

Student is Working in STEM Field:
-Yes
   Company Name
   Nature of Job
-No
			X

S-STEM: Number of Respondents, Frequency of Response, and Annual Hour Burden

The estimated average number of annual respondents is 500, with an estimated average annual response burden of 6,000 hours. The frequency of response is an average of two times per year.

Respondents are award PIs. There is an average of 500 active awards each year, with 500 total PIs (1 per award) and an average of 35 scholars per award. PIs must report on each student receiving S-STEM scholarship support for each semester or quarter, depending on the system used by their institution, for an average of two responses per year per PI. Because of the nature of the project, PIs will have most of the data on scholars readily available and will need to spend an average of only 10 minutes per semester or quarter entering data on each scholar, for a total annual burden of approximately 6 hours per PI.

The burden estimate is outlined below:

Respondent Type	Estimated Average Annual No. of Respondents	Estimated Average Annual Burden Hours Per Respondent	Responses Per Year	Estimated Annual Burden Hour Total
PIs	500	6	2	6,000
Total	**500**			**6,000**

S-STEM: Hour Burden Estimates by Each Form and Aggregate Hour Burdens

There is only one form. As mentioned above, respondents will be project PIs. The estimated total annual response burden is 6,000 hours. Burden is minimized by the fact that the Web-based screens request data in simple data entry fields, including radio buttons, dropdown menus, and text boxes, so little if any time is required for familiarization with the system. In addition, respondents can use an offline version of the survey to upload their data, allowing them to sort their data by student or semester and cut and paste repeating data. The annual burden by form was calculated as follows:

Form Type	Respondent Type	No. of Respondents	Burden Hours Per Respondent	Responses Per Year	Total Burden Hours
S-STEM data collection form	PIs	500	6	2	6,000
Total		**500**			**6,000**

S-STEM: Estimates of Annualized Cost to Respondents for the Hour Burdens

The overall annualized cost to the respondents is estimated to be $252,000. The following table shows the annualized estimates of costs to PI respondents, who are generally university professors. The estimated hourly rate is based on a report from the American Association of University Professors, "Annual Report on the Economic Status of the Profession, 2014-15," *Academe*, March–April 2015, Survey Report Table 4. According to this report, the average salary across all academic ranks and across all types of doctoral-granting institutions (public, private-independent, religiously affiliated) was $87,838. When divided by the number of standard annual work hours (2,080), this calculates to approximately $42 per hour.

Type of Respondent	No. of Respondents	Burden Hours Per Respondent	Responses Per Year	Average Hourly Rate	Estimated Annual Cost
PIs	500	6	2	$42	$252,000
Total	**500**				**$252,000**

S-STEM: Estimates of Costs to the Federal Government

Computing the annualized cost to NSF for the S-STEM data collection was done by taking the budget for the most recent year and calculating the costs for each of the following operational activities involved in producing, maintaining, and conducting the data collection:

Operational Activities	Cost Over Three Years
System Development (includes initial development of the database and Web-based application, and later changes requested by the program, e.g., increased reporting tools, additional validations)	$359,259
System Maintenance, Updates, and Technical Support (the system requires updates each year before opening the collection; maintenance is required to keep the system current with technology, e.g., database servers, operating systems)	$183,470
Data Collection Opening and Support (e.g., online and telephone support to respondents and contacting respondents to encourage completion of the questions), Reporting (as defined by DUE), and Followup Activities (e.g., providing data to other consultants)	$221,693
Three-Year Total for All Operational Activities	**$764,457**

The annualized cost was computed as one-third of the total three-year costs; thus, the annualized cost to NSF for the STEP data collection is $254,819.

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Award Details from FastLane
Award ID Number[4]
Principal Investigator (PI) Name[4]
PI E-mail Address[4]
PI Phone Number[4]
Institution Name[4]
Award Title[4]
Award Start Date[4]
Award Expiration Date[4]
Alternate Contact Information
Alternate Contact Name
Alternate Contact E-mail Address
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Academic Schedule
Academic Term Select one. -Semesters -Quarters -Trimesters
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Program Activities

Program Activities Select one or more. -Academic Support Services -Career Counseling/Job Placement -Community Building -Field Trips -Internships -Meetings/Conferences -Mentoring -Recruitment -Research Opportunities -Seminars -Other (please describe) -None
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Student Demographics
Date of Birth: mm/dd/yyyy
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Race Select one or more. -American Indian or Alaska Native -Asian -Black or African American -Native Hawaiian or other Pacific Islander -White -Not Reported or Unknown

Ethnicity Select one. -Hispanic or Latino -Not Hispanic or Latino -Not Reported or Unknown

Disability
Select "Yes" if any of the following apply:
    • Deaf or serious difficulty hearing
    • Blind or serious difficulty seeing even when wearing glasses
    • Serious difficulty walking or climbing stairs
    • Other serious disability related to a physical, mental, or emotional condition
-Yes
-No
-Do not wish to provide

Student Address – Permanent Residence Address Line 1 Address Line 2 City State Zip Code/Postal Code
Student Address – School Residence Address Line 1 Address Line 2 City State Zip Code/Postal Code
Semester/Quarter Details
Cumulative GPA
S-STEM Scholarship Amount

Intended Major Select one. -Astronomy -Biological Sciences -Biology -Biotechnology -Chemistry -Computer Information Science -Computer Science -Computer -Engineering–Aerospace -Engineering–Biological -Engineering–Biomedical -Engineering–Chemical -Engineering–Civil -Engineering–Computer -Engineering–Electrical -Engineering–Environmental -Engineering–Industrial -Engineering–Mechanical -Engineering–Nuclear -Engineering–Petroleum -Engineering–Technology -Engineering -Environmental Sciences -Geosciences -Materials Science -Mathematical Sciences -Mathematics -Physical Sciences -Physics -Technology–Chemical -Technology–Computer -Technology–Information -Technology–Manufacturing -Technology -Other (Please describe)
Class Select one. -Freshman -Sophomore -Junior -Senior -Graduate Student
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Activities Select one or more. -Academic Support Services -Career Counseling/Job Placement -Community Building -Field Trips -Internships -Meetings/Conferences -Mentoring -Recruitment -Research Opportunities -Seminars -Other (please describe) -None
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Follow-Up Questions

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    Intended Major
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        -Biological Sciences
        -Biology
        -Biotechnology
        -Chemistry
        -Computer Information Science
        -Computer Science
        -Computer
        -Engineering–Aerospace
        -Engineering–Biological
        -Engineering–Biomedical
        -Engineering–Chemical
        -Engineering–Civil
        -Engineering–Computer
        -Engineering–Electrical
        -Engineering–Environmental
        -Engineering–Industrial
        -Engineering–Mechanical
        -Engineering–Nuclear
        -Engineering–Petroleum
        -Engineering–Technology
        -Engineering
        -Environmental Sciences
        -Geosciences
        -Materials Science
        -Mathematical Sciences
        -Mathematics
        -Physical Sciences
        -Physics
        -Technology–Chemical
        -Technology–Computer
        -Technology–Information
        -Technology–Manufacturing
        -Technology
        -Other (Please describe)
-No

Student is Working in STEM Field:
-Yes
    Company Name
    Nature of Job
-No