Attachment J1

Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System

Table of Contents

Common Collection Categories Questions	Staff and Project Participant Characteristics[1]	Project Implementation Characteristics[2]	Project Outputs[3]
1. Your Contact Information			
Principal Investigator (PI)/Institution Leader (IL)			
First Name	X		
Middle Initial	X		
Last Name	X		
Title (Miss/Ms./Mr./Dr./Prof./etc.)	X		
Institution Address 1	X		
Institution Address 2	X		
City	X		
State	X		
ZIP Code	X		
Phone Number and Extension	X		
Fax Number	X		
E-mail Address	X		
STEP Project Web Site Address	X		
Person Completing the Survey			
First Name	X		
Middle Initial	X		
Last Name	X		
Title (Miss/Ms./Mr./Dr./Prof./etc.)	X		
Phone Number and Extension	X		
Fax Number	X		
E-mail Address	X		
Additional Contacts			
First Name	X		
Last Name	X		
E-mail Address	X		
2. Institution Definitions			
What cutoff date does your institution use to determine total undergraduate enrollment? (month/day/year)	X		
Why is this date used?	X		
Have the criteria for setting this date changed since last year? (Yes/No)	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.

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
Total undergraduate enrollment (according to the cutoff date indicated in your answer to question 2.1)	X		
How does your institution define a full-time equivalent (FTE) undergraduate student?	X		
Has this definition changed since last year? (Yes/No)	X		
How does your institution calculate undergraduate FTE enrollment?	X		
Has this formula changed since last year? (Yes/No)	X		
Total undergraduate FTE enrollment according to the cutoff date indicated in your answer to question 2.1:	X		
What are your institution's requirements for selecting a major? [4-year institutions]/What are your institution's requirements for considering a student a STEM major (or your institution's equivalent classification)? [2-year institutions]	X		
Have these criteria changed since last year? (Yes/No)	X		
3. Student Demographics			

Questions **Common Collection Categories**	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
STEM Disciplines offered at [INSERT INSTITUTION NAME] Please indicate the STEM disciplines in which [INSERT INSTITUTION NAME] offers majors/degrees. [If you are unable to classify our data by these disciplines, try the alternative list of categories. (2-year institutions only)] A list of STEM discipline classifications is available in the online crosswalk. **Standard List** Agricultural Science Biological Sciences Chemistry Computer Science Engineering Environmental Science Geosciences Mathematics Physics/Astronomy Psychology Undeclared Non-STEM **Alternative List** [2-year institutions only] Engineering Mathematics Science Undeclared Non-STEM		X	

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

Majors
Please enter the number of students who have completed the requirements necessary to be officially recognized by your institution as majoring in [INSERT DISCIPLINE] (or your institution's equivalent classification) (2-year institutions only) as of the cutoff date indicated in your answer to question 2.1.
 	
Majors – Not Hispanic or Latino students
Race(s)
    American Indian or Alaska Native
    Asian
    Black or African American
    Native Hawaiian or Other Pacific Islander
    White
    More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
    More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
    Race Not Reported or Unknown
    Auto-Total Not Hispanic or Latino (read-only)
 	
Majors – Hispanic or Latino students
Race(s)
    American Indian or Alaska Native
    Asian
    Black or African American
    Native Hawaiian or Other Pacific Islander
    White
    More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
    More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
    Race Not Reported or Unknown
    Auto-Total Hispanic or Latino (read-only)
 	
Neither Ethnicity nor Race Reported
Auto-Total [INSERT DISCIPLINE] Majors (read-only)
 	
Male
Female
Gender Not Reported
Auto-Total (Read-Only)
			X

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

Degrees Granted
Please enter the number of students granted associate's degrees (2-year institutions)/bachelor's degrees (4-year institutions) in [INSERT DISCIPLINE] by ethnicity, race, and gender during the reporting period July 1, 20XX – June 30, 20XX.
 	
Associate's [2-year institutions]/ Bachelor's [4-year institutions] degrees granted to Not Hispanic or Latino students
Race(s)
    American Indian or Alaska Native
    Asian
    Black or African American
    Native Hawaiian or Other Pacific Islander
    White
    More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
    More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
    Race Not Reported or Unknown
    Auto-Total Not Hispanic or Latino (read-only)
 	
Associate's [2-year institutions]/ Bachelor's [4-year institutions] degrees granted to Hispanic or Latino students
Race(s)
    American Indian or Alaska Native
    Asian
    Black or African American
    Native Hawaiian or Other Pacific Islander
    White
    More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
    More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
    Race Not Reported or Unknown
    Auto-Total Hispanic or Latino (read-only)
 	
Neither Ethnicity nor Race Reported
Auto-Total Associate's (2-year institutions)/Bachelor's (4-year institutions) degrees granted in [INSERT DISCIPLINE] (read-only)
 	
Male
Female
			X

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

Transfers to 4-Year Institutions [2-year institutions only]
Please enter the number of [INSERT DISCIPLINES] majors transferring to 4-year institutions during the reporting period July 1, 20XX – June 30, 20XX by ethnicity, race, and gender. (U.S. citizens and permanent residents only.)
 	
Transfers to 4-year institutions by Not Hispanic or Latino students
Race(s)
    American Indian or Alaska Native
    Asian
    Black or African American
    Native Hawaiian or Other Pacific Islander
    White
    More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
    More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
    Race Not Reported or Unknown
    Auto-Total Not Hispanic or Latino (read-only)
 	
Transfers to 4- year institutions by Hispanic or Latino students
Race(s)
    American Indian or Alaska Native
    Asian
    Black or African American
    Native Hawaiian or Other Pacific Islander
    White
    More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
    More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
    Race Not Reported or Unknown
    Auto-Total Hispanic or Latino (read-only)
 	
Neither Ethnicity nor Race Reported
Auto-Total Transfers to 4-year institutions by[INSERT DISCIPLINE] majors (read-only)
 	
Male
Female
Gender Not Reported
Auto-Total (Read-Only)
			X

Common Collection Categories Questions	Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
4. Strategies and Activities			
Title of strategy/activity		X	
Status (Planned/Implemented/Discontinued)		X	

Which of the following best describes the strategy/activity? (check all that apply):
    Precollege Development
    Undergraduate Student Academic Development
    Undergraduate Student Professional Development
    Faculty Development
    Curriculum Development
    Linkages with Community Colleges
    Other (please specify):
		X	

Were any of the following student groups specifically targeted by this strategy/activity? (check any that apply):
    Underrepresented Minority Students
    Female Students
    At-Risk Students (please define):
		X	

Brief description of strategy/activity:		X	
Number of undergraduate students participating in this strategy/activity:		X	X
Number of high school students (juniors and seniors only) participating in this strategy/activity:		X	X
Indications that this strategy/activity will increase the number of STEM graduates (or STEM majors transferring to 4-year institutions [2-year institutions only]):			X
Describe any challenges in implementing this strategy/activity:		X	
5. Challenges			
Title of challenge		X	
Brief description of challenge		X	

	6. Other Influences			
	Description of influences:		X	
	7. Student Participation			
	Since some of your strategies/activities will service the same students multiple times, please estimate How many distinct undergraduate students participated in the strategies/activities carried out under your STEP grant between July 1, 20XX – June 30, 20XX, as described in section 4 How many distinct high school students participated in the strategies/activities carried out under your STEP grant between July 1, 20XX – June 30, 20XX, as described in section 4		X	X
	How many distinct undergraduate students received direct funding under your STEP grant between July 1, 20XX – June 30, 20XX? This would include being paid to be a tutor, mentor, or intern; receiving a scholarship or stipend; and being paid to assist with STEP strategies/activities.		X	X
	For what types of efforts were undergraduate students funded between July 1, 20XX – June 30 20XX? Payment for tutoring Payment for mentoring Paid internships/research experiences Scholarships/stipends Payment for assisting with STEP strategies/activities Other (please specify):		X	X

STEP: Number of Respondents, Frequency of Response, and Annual Hour Burden

The estimated average number of annual respondents is 277, with an estimated average annual response burden of 6,648 hours. The Web-based data collection is an annual activity of the STEP program. Data are collected from each lead institution and its corresponding partner institution(s); the respondents are award PIs (for lead institutions) and institution leaders (for partner institutions). The estimated average annual hour burden per respondent was determined using the burden information reported by respondents for the last two collection cycles.

The burden estimate is outlined below:

Respondent Type	Estimated Average Annual No. of Respondents	Estimated Average Annual Burden Hours Per Respondent	Estimated Annual Burden Hour Total
PIs/institution leaders	277	24	6,648
Total	**277**		**6,648**

STEP: Hour Burden Estimates by Each Form and Aggregate Hour Burdens

There is only one form with slight wording differences for 2-year institutions and for 4-year institutions. This form accounts for the entire annual response burden of 6,648 hours. The annual burden by form was calculated as follows:

Form Type	Respondent Type	No. of Respondents	Burden Hours Per Respondent	Total Burden Hours
STEP data collection form	PIs/institution leaders	277	24	6,648
Total		**277**		**6,648**

STEP: Estimates of Annualized Cost to Respondents for the Hour Burdens

The overall annualized cost to the respondents is estimated to be $279,216. The following table shows the annualized estimates of costs to PI/institution leader 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.

Respondent Type	No. of Respondents	Burden Hours Per Respondent	Average Hourly Rate	Estimated Annual Cost
PIs/institution leaders	277	24	$42	$279,216
Total	**277**			**$279,216**

STEP: Estimates of Costs to the Federal Government

Computing the annualized cost to NSF for the STEP 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 STEP 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)	$445,875
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)	$190,755
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)	$236,359
Three-Year Total for All Operational Activities	**$872,989**

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 $290,996.

1. Your Contact Information
Principal Investigator (PI)/Institution Leader (IL)
First Name
Middle Initial
Last Name
Title (Miss/Ms./Mr./Dr./Prof./etc.)
Institution Address 1
Institution Address 2
City
State
ZIP Code
Phone Number and Extension
Fax Number
E-mail Address
STEP Project Web Site Address
Person Completing the Survey
First Name
Middle Initial
Last Name
Title (Miss/Ms./Mr./Dr./Prof./etc.)
Phone Number and Extension
Fax Number
E-mail Address
Additional Contacts
First Name
Last Name
E-mail Address
2. Institution Definitions
What cutoff date does your institution use to determine total undergraduate enrollment? (month/day/year)
Why is this date used?
Have the criteria for setting this date changed since last year? (Yes/No)
Total undergraduate enrollment (according to the cutoff date indicated in your answer to question 2.1)
How does your institution define a full-time equivalent (FTE) undergraduate student?
Has this definition changed since last year? (Yes/No)
How does your institution calculate undergraduate FTE enrollment?
Has this formula changed since last year? (Yes/No)
Total undergraduate FTE enrollment according to the cutoff date indicated in your answer to question 2.1:
What are your institution's requirements for selecting a major? [4-year institutions]/What are your institution's requirements for considering a student a STEM major (or your institution's equivalent classification)? [2-year institutions]
Have these criteria changed since last year? (Yes/No)
3. Student Demographics

STEM Disciplines offered at [INSERT INSTITUTION NAME]
Please indicate the STEM disciplines in which [INSERT INSTITUTION NAME] offers majors/degrees. [If you are unable to classify our data by these disciplines, try the alternative list of categories. (2-year institutions only)] A list of STEM discipline classifications is available in the online crosswalk.

Standard List
Agricultural Science
Biological Sciences
Chemistry
Computer Science
Engineering
Environmental Science
Geosciences
Mathematics
Physics/Astronomy
Psychology
Undeclared
Non-STEM

Alternative List [2-year institutions only]
Engineering
Mathematics
Science
Undeclared
Non-STEM

Majors

Please enter the number of students who have completed the requirements necessary to be officially recognized by your institution as majoring in [INSERT DISCIPLINE] (or your institution's equivalent classification) (2-year institutions only) as of the cutoff date indicated in your answer to question 2.1.

Majors – Not Hispanic or Latino students
Race(s)
      American Indian or Alaska Native
      Asian
      Black or African American
      Native Hawaiian or Other Pacific Islander
      White
      More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
      More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
      Race Not Reported or Unknown
      Auto-Total Not Hispanic or Latino (read-only)

Majors – Hispanic or Latino students
Race(s)
      American Indian or Alaska Native
      Asian
      Black or African American
      Native Hawaiian or Other Pacific Islander
      White
      More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
      More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
      Race Not Reported or Unknown
      Auto-Total Hispanic or Latino (read-only)

Neither Ethnicity nor Race Reported
Auto-Total [INSERT DISCIPLINE] Majors (read-only)

Male
Female
Gender Not Reported
Auto-Total (Read-Only)

Degrees Granted

Please enter the number of students granted associate's degrees (2-year institutions)/bachelor's degrees (4-year institutions) in [INSERT DISCIPLINE] by ethnicity, race, and gender during the reporting period July 1, 20XX – June 30, 20XX.

Associate's [2-year institutions]/ Bachelor's [4-year institutions] degrees granted to Not Hispanic or Latino students
Race(s)

      American Indian or Alaska Native
      Asian
      Black or African American
      Native Hawaiian or Other Pacific Islander
      White
      More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
      More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
      Race Not Reported or Unknown
      Auto-Total Not Hispanic or Latino (read-only)

Associate's [2-year institutions]/ Bachelor's [4-year institutions] degrees granted to Hispanic or Latino students
Race(s)

      American Indian or Alaska Native
      Asian
      Black or African American
      Native Hawaiian or Other Pacific Islander
      White
      More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
      More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
      Race Not Reported or Unknown
      Auto-Total Hispanic or Latino (read-only)

Neither Ethnicity nor Race Reported
Auto-Total Associate's (2-year institutions)/Bachelor's (4-year institutions) degrees granted in [INSERT DISCIPLINE] (read-only)

Male
Female
Gender Not Reported
      Auto-Total (Read-Only)

Transfers to 4-Year Institutions [2-year institutions only]

Please enter the number of [INSERT DISCIPLINES] majors transferring to 4-year institutions during the reporting period July 1, 20XX – June 30, 20XX by ethnicity, race, and gender. (U.S. citizens and permanent residents only.)

Transfers to 4-year institutions by Not Hispanic or Latino students
Race(s)

      American Indian or Alaska Native
      Asian
      Black or African American
      Native Hawaiian or Other Pacific Islander
      White
      More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
      More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
      Race Not Reported or Unknown
      Auto-Total Not Hispanic or Latino (read-only)

Transfers to 4- year institutions by Hispanic or Latino students
Race(s)

      American Indian or Alaska Native
      Asian
      Black or African American
      Native Hawaiian or Other Pacific Islander
      White
      More Than One Race Reported (Count students reporting two or more race categories where at least one of the reported categories is: American Indian or Alaska Native, Black or African American, or Native Hawaiian or Other Pacific Islander.)
      More Than One Race Reported (Asian & White) (Count students reporting both Asian and White, but no other race.)
      Race Not Reported or Unknown
      Auto-Total Hispanic or Latino (read-only)

Neither Ethnicity nor Race Reported
Auto-Total Transfers to 4-year institutions by[INSERT DISCIPLINE] majors (read-only)

Male
Female
Gender Not Reported
Auto-Total (Read-Only)

4. Strategies and Activities

Title of strategy/activity

Status (Planned/Implemented/Discontinued)

Which of the following best describes the strategy/activity? (check all that apply):

      Precollege Development
      Undergraduate Student Academic Development
      Undergraduate Student Professional Development
      Faculty Development
      Curriculum Development
      Linkages with Community Colleges
      Other (please specify):

Were any of the following student groups specifically targeted by this strategy/activity? (check any that apply):
      Underrepresented Minority Students
      Female Students
      At-Risk Students (please define):

Brief description of strategy/activity:
Number of undergraduate students participating in this strategy/activity:
Number of high school students (juniors and seniors only) participating in this strategy/activity:
Indications that this strategy/activity will increase the number of STEM graduates (or STEM majors transferring to 4-year institutions [2-year institutions only]):
Describe any challenges in implementing this strategy/activity:
5. Challenges
Title of challenge
Brief description of challenge

6. Other Influences				
Description of influences:			X	
7. Student Participation				
Since some of your strategies/activities will service the same students multiple times, please estimate How many distinct undergraduate students participated in the strategies/activities carried out under your STEP grant between July 1, 20XX – June 30, 20XX, as described in section 4 How many distinct high school students participated in the strategies/activities carried out under your STEP grant between July 1, 20XX – June 30, 20XX, as described in section 4			X	X
How many distinct undergraduate students received direct funding under your STEP grant between July 1, 20XX – June 30, 20XX? This would include being paid to be a tutor, mentor, or intern; receiving a scholarship or stipend; and being paid to assist with STEP strategies/activities.			X	X
For what types of efforts were undergraduate students funded between July 1, 20XX – June 30 20XX? Payment for tutoring Payment for mentoring Paid internships/research experiences Scholarships/stipends Payment for assisting with STEP strategies/activities Other (please specify):			X	X