

APPENDIX B

TUES Monitoring System Crosswalk

**DATA ELEMENTS OF THE
TRANSFORMING UNDERGRADUATE EDUCATION IN SCIENCE, TECHNOLOGY,
ENGINEERING, AND MATHEMATICS MONITORING SYSTEM (TUES)**

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics ¹	Project Implementation Characteristics ²	Project Outputs ³
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Notes:</p> <ul style="list-style-type: none"> The System presents only those questions that are logically relevant to the type of award and previously answered questions. All questions pertain to the current reporting period’s participants, implementation, and outputs. Three major categories drive the tailoring of the system to the award type. We have included columns to indicate these, which are: <ul style="list-style-type: none"> Single Award Lead Collaborative Award (most questions) Non-Lead Collaborative Award(fewest questions) For most questions respondents have the option to add comments. The data elements associated with these comments are not shown in the crosswalk because the comments are entirely optional. 						
	1. About This Award						
	Award information in this section is preloaded and displayed for verification purposes. PIs can contact the technical support team to report data that should be updated, but they cannot edit this data directly via the data collection instrument						
	NSF Award ID	X	X	X		X	
	Grantee Institution	X	X	X	X		
	Lead PI’s Name:	X	X	X	X		
	Lead PI’s Discipline	X	X	X	X		
	Project Title	X	X	X		X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Phase or Type <ul style="list-style-type: none"> Phase 1/Type 1 Phase 2/Type 2 Phase 3/Type 2 Central Resource Project 	X	X	X		X	
	Award Start Date	X	X	X		X	
	For consolidated awards: First Award's Start Date	X	X	X		X	
	Award End Date	X	X	X		X	
	Year of Project <ul style="list-style-type: none"> Year 1 Year 2 Year 3 Year 4 Year 5 or more Project has ended 	X	X	X		X	
	Award Type <ul style="list-style-type: none"> Single Collaborative [The system will display other grantee institutions of collaborative projects.]	X	X	X		X	
	2. About The [Collaborative] Project [As a Whole]						

New Elements	Common Collection Categories	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Questions						
	Project Overview						
	Disciplinary Focus						
	Primary Disciplinary Focus (one) <ul style="list-style-type: none"> • Multidisciplinary or Interdisciplinary • Astronomy • Biological Sciences • Chemistry • Computer Sciences • Engineering • Engineering Technology • Geosciences • Mathematical Sciences • Physics • Social and Behavioral Sciences • Other, please specify: 	x	x		X		
	Additional Disciplinary Focuses (all that apply) <ul style="list-style-type: none"> • Multidisciplinary or Interdisciplinary • Astronomy • Biological Sciences • Chemistry • Computer Sciences • Engineering • Engineering Technology • Geosciences • Mathematical Sciences • Physics • Social and Behavioral Sciences • Other, please specify: 	x	x		X		
	TUES Program Components						

New Elements	Common Collection Categories	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs																	
		Single	Lead Collaborative	Non-Lead Collaborative																				
<p>Project Components: (one primary and as many others as apply)</p> <table border="1"> <thead> <tr> <th>Focus</th> <th>Primary</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Assessing and evaluating student achievement and outcomes (e.g., knowledge, skills, attitudes)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Creating learning materials and strategies</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Conducting research on undergraduate STEM education</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Developing faculty expertise</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Implementing new instructional strategies</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Focus	Primary	Other	Assessing and evaluating student achievement and outcomes (e.g., knowledge, skills, attitudes)	<input type="checkbox"/>	<input type="checkbox"/>	Creating learning materials and strategies	<input type="checkbox"/>	<input type="checkbox"/>	Conducting research on undergraduate STEM education	<input type="checkbox"/>	<input type="checkbox"/>	Developing faculty expertise	<input type="checkbox"/>	<input type="checkbox"/>	Implementing new instructional strategies	<input type="checkbox"/>	<input type="checkbox"/>						
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	Developing faculty expertise	<input type="checkbox"/>	<input type="checkbox"/>																					
	Implementing new instructional strategies	<input type="checkbox"/>	<input type="checkbox"/>																					
<p>Does a significant aspect of the project include the introduction of new disciplinary knowledge into undergraduate curricula?</p> <ul style="list-style-type: none"> • Yes • No 	X	X				X																		
Target Audiences																								
<p>Course Levels Targeted (all that apply)</p> <ul style="list-style-type: none"> • Upper division • Lower division • Developmental 	X	X			X																			
<p>Groups Primarily Targeted (all that apply)</p> <ul style="list-style-type: none"> • Faculty • Pre-service teachers • Instructional staff (e.g., graduate students, lab assistants, lab technicians, adjunct faculty) • Undergraduate STEM Majors • Undergraduate majors other than STEM • Other, please specify: 	X	X			X																			
<p>Does the project foster scientific and/or technical literacy among students who are in majors other than STEM majors?</p> <ul style="list-style-type: none"> • Yes • No 	X	X			X	X																		
Project Activities, Outputs, and Outcomes																								
Summary																								

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Did the project develop, adapt, adopt, or use any of the following during the current reporting period (all that apply) <ul style="list-style-type: none"> • Instructional materials • Instructional strategies • Assessment instruments or processes to assess student achievements • None of the Above 	X	X				X
	Please list any publicly available assessment instruments (e.g., SALG, FCI, NSSE) that your project administered during the current reporting period: [textbox]	X	X				X
	Does the project have a faculty development component? (e.g., seminar, workshop, meeting session) that shared project approaches with other faculty members during the current reporting period? <ul style="list-style-type: none"> • Yes • No 	X	X				X
	Did the project conduct research on undergraduate STEM education during the current reporting period? <ul style="list-style-type: none"> • Yes • No 	X	X			X	
	Instructional Materials						
	Which are true for your project during the current reporting period? (all that apply) <ul style="list-style-type: none"> • We developed or revised instructional materials for our project • We adapted or adopted materials created by others • We uses our project’s instructional materials with students or faculty 	X	X				X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Types of instructional materials the project developed, adapted, adopted or used during the current reporting period: (all that apply) <ul style="list-style-type: none"> • Case studies • Demonstrations • Educational games • Field activity guides or manuals • Instructor materials for adapting project activities or procedures to new settings • Instructor guides or manuals to guide student activities • Laboratory guides or manuals • Lesson plans • Practice problems or exercises for students • Simulations • Software tools • Student handbooks or workbooks • Textbooks • Tutorials • Visualizations • Web-based collaborative tools • Web-enhanced tools • Workshop materials for training students • Other instructional materials, please specify: 	X	X				X
	Material [This group of questions repeats for each type of material selected above.]						
	Project Activities Regarding [material type]s: (all that apply) <ul style="list-style-type: none"> • Developed or revised materials created by our project • Adopted or adapted materials created by others • Used with undergraduate STEM majors • Used with undergraduates not majoring in a STEM field • Used with graduate students to develop expertise • Used with faculty members to develop expertise 	X	X				X
	Formats applicable to [material type]s (all that apply) <ul style="list-style-type: none"> • Print • Online • Other electronic format 	X	X				X
	Instructional Strategies						

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Which are true for your project during the current reporting period? (all that apply)</p> <ul style="list-style-type: none"> We developed or revised instructional strategies for our project We adapted or adopted strategies created by others We uses our project’s instructional strategies with students or faculty 	X	X				X
	<p>Types of instructional strategies project developed, adapted, adopted or used during the current reporting period: (all that apply)</p> <ul style="list-style-type: none"> Case-based learning strategies Cooperative/ collaborative learning strategies Design activities Field studies Hands-on activities (e.g. building or testing objects) Integrated courses Intelligent tutoring systems Laboratory experiences Learning communities (e.g. student cohorts) Lectures Linked courses Real time modification strategies based on student performance (e.g., Just-in-Time Teaching) Peer instruction strategies (e.g., peer tutoring, peer mentoring) Personal response systems (e.g., “clickers”) Problem-based learning strategies Quantitative/ computational approaches Strategies involving real-world examples, problems, or contexts Strategies involving remote laboratories Strategies involving formal research experience in classroom laboratories Service learning strategies Studio-based strategies Web-enabled homework submission and grading systems Web-enabled instruction strategies Web-enabled repositories Web-enabled student collaboration/ social networking tools Other instructional strategies, please specify: 	X	X				X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Strategy [This group of questions repeats for each type of material selected above.]						
	Project Activities Regarding [strategy type]s: (all that apply) <ul style="list-style-type: none"> Developed or revised strategies created by our project Adopted or adapted strategies created by others Used with undergraduate STEM majors Used with undergraduates not majoring in a STEM field Used with graduate students to develop expertise Used with faculty members to develop expertise 	X	X				X
	Formats applicable to [strategy type]s (all that apply) <ul style="list-style-type: none"> Print Online Other electronic format 	X	X				X
	<i>Assessment Instruments and Processes</i>						
	Which are true for your project during the current reporting period? (all that apply) <ul style="list-style-type: none"> We developed or revised new assessment instruments or processes We adapted or adopted assessment instruments or processes created by others We used assessment instruments or processes with students or faculty 	X	X				X
	Types of tools or techniques your project developed, adapted, adopted, or used during the current reporting period: (all that apply: <ul style="list-style-type: none"> Assessment of general knowledge or skill (e.g., critical thinking skills, problem-solving skills) Cognitive protocol interviews Concept inventories Course exams Standardized tests (e.g. Fundamentals of Engineering; American Chemical Society examinations) Performance assessment of skills (e.g., observation and rating of skills) Students' perceptions of their own learning Expert review Other instruments and processes to determine outcomes, please specify: 	X	X				X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Assessment Instrument or Process [This group of questions repeats for each type of tool/technique selected above.]						
	Project Activities Regarding [instrument/process type]s: (all that apply) <ul style="list-style-type: none"> Developed or revised instruments or processes created by our project Adopted or adapted instruments or processes created by others Used with undergraduate STEM majors Used with undergraduates not majoring in a STEM field Used with graduate students to develop expertise Used with faculty members to develop expertise 	X	X				X
	Formats applicable to [instrument/process type]s (all that apply) <ul style="list-style-type: none"> Print Online Other electronic format 	X	X				X
	<i>Research On Undergraduate STEM Education</i>						
	Topic of research on undergraduate STEM education [500 character textbox]	X	X				
	What type of research does your project employ? (one) <ul style="list-style-type: none"> Qualitative research design Quantitative research design Mixed method research design 	X	X			X	
	<i>Faculty Professional Development Component</i>						

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>With whom were project faculty professional development approaches shared during the current reporting period? (all that apply)</p> <ul style="list-style-type: none"> • Graduate students and post-docs at the awardee or subawardee institutions • Graduate students and post-docs at other participating institutions • Graduate students and post-docs at other institutions across the U.S. • Graduate students and post-docs at international institutions • Faculty at the awardee or subawardee institutions • Faculty at other participating institutions • Faculty at other institutions across the U.S. • Faculty at international institutions • Instructional staff at the awardee or subawardee institutions • Instructional staff at other participating institutions • Instructional staff at other institutions across the U.S. • Instructional staff at international institutions 	X	X		X		
	<p>Which disciplines were the focus of the project's faculty professional development efforts during the current reporting period? (all that apply)</p> <ul style="list-style-type: none"> • Multidisciplinary or Interdisciplinary • Astronomy • Biological Sciences • Chemistry • Computer Sciences • Engineering • Engineering Technology • Geosciences • Mathematical Sciences • Physics • Social and Behavioral Sciences • Other, please specify: • None 	X	X			X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Types of institutions were represented at these efforts during the current reporting period (all that apply) <ul style="list-style-type: none"> • 2-year Institution • Bachelors • Masters • Doctoral • Other, please specify • Don't know 	X	X		X		
	Types of institutions represented at the project's faculty professional development efforts with special institutional designations (all that apply) <ul style="list-style-type: none"> • Asian/Pacific Islander Serving College • Hispanic Serving Institution • Institution Primarily Serving Students with Disabilities • Minority Serving Institution • Native American Serving Nontribal College • Predominantly Black College • Historically Black College or University • Tribal College • None • Not Reported / Don't Know 	X	X		X		

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs																
		Single	Lead Collaborative	Non-Lead Collaborative																			
	<p>We are interested in whether participants who receive funding to attend faculty professional development activities are more or less likely to implement what they learn. Please estimate how many faculty professional development participants received funds from the project or their institution to attend. Of each group, please also indicate <i>approximately</i> how many are implementing the ideas shared.</p> <table border="1"> <thead> <tr> <th></th> <th>Participants funded by the project</th> <th>Participants funded by their institution (if known)</th> <th>All other participants</th> </tr> </thead> <tbody> <tr> <td>Number of faculty members</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Number of institutions represented by those faculty members</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Number of faculty implementing what they learned</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><i>Note: Your response to this question is optional this year, but may be required in future years</i></p>		Participants funded by the project	Participants funded by their institution (if known)	All other participants	Number of faculty members				Number of institutions represented by those faculty members				Number of faculty implementing what they learned				X	X		X	X	X
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	Publications and Presentations																						

New Elements	Common Collection Categories	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs																																					
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	<p>Questions</p> <p>Please provide the number of project-related outputs that were created during the current reporting period for each of the publication types listed below. If a publication was created in multiple formats, it should be counted once under “unique publications,” and then counted again for each format in which it was published.</p> <table border="1"> <thead> <tr> <th rowspan="2">Publication Types Accepted during the Current Reporting Period</th> <th rowspan="2">Total number of unique publications</th> <th colspan="3">Number of publications by format</th> </tr> <tr> <th>Print</th> <th>Online</th> <th>Electronic –</th> </tr> </thead> <tbody> <tr> <td>Peer-reviewed journal articles that were accepted for publication</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Peer-reviewed conference papers or abstracts that were accepted for inclusion in conference proceedings</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Conference papers or abstracts that were accepted without peer review</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Book chapters in edited volumes that were accepted for publication</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Monographs or books that were accepted for publication</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other publications (e.g., newsletters, magazines) accepted for publication</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Publication Types Accepted during the Current Reporting Period	Total number of unique publications	Number of publications by format			Print	Online	Electronic –	Peer-reviewed journal articles that were accepted for publication					Peer-reviewed conference papers or abstracts that were accepted for inclusion in conference proceedings					Conference papers or abstracts that were accepted without peer review					Book chapters in edited volumes that were accepted for publication					Monographs or books that were accepted for publication					Other publications (e.g., newsletters, magazines) accepted for publication					X	X			X
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New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs								
		Single	Lead Collaborative	Non-Lead Collaborative											
	<p>How many presentations or workshops on the project were delivered during the current reporting period? (Include presentations that were conducted by individuals trained by the project.)</p> <table border="1"> <thead> <tr> <th>Presentation Types</th> <th>Number of Presentations/Workshops</th> </tr> </thead> <tbody> <tr> <td>Peer-reviewed conference presentations</td> <td></td> </tr> <tr> <td>Invited conference or meeting presentations</td> <td></td> </tr> <tr> <td>Invited faculty development workshops</td> <td></td> </tr> </tbody> </table>	Presentation Types	Number of Presentations/Workshops	Peer-reviewed conference presentations		Invited conference or meeting presentations		Invited faculty development workshops		X	X				X
Presentation Types	Number of Presentations/Workshops														
Peer-reviewed conference presentations															
Invited conference or meeting presentations															
Invited faculty development workshops															
Honors and Awards															
	How many honors or awards did the project receive during the current reporting period (include individuals recognized for their contributions to the project)? [number]	X	X				X								
Honor or Award Information [Provide for each honor/award]															
	Title	X	X				X								
	Year	X	X				X								
	Presenting Organization	X	X				X								
	Reason for the honor or award	X	X				X								
Institutionalization															
	<p>Are there plans to sustain the project after NSF funding ends?</p> <ul style="list-style-type: none"> • Yes • No 	X	X			X									
	<p>During the current reporting period, were steps taken to sustain the project's activities after NSF funding ends?</p> <ul style="list-style-type: none"> • Yes, some steps to sustain the project were taken. • Yes, all of the necessary steps to sustain the project were completed. • No, no steps to sustain the project were taken during the current reporting period. <p>If no, when does the project plan to start? (enter month and year) ____ / ____</p>	X	X			X									
Dissemination															

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Where else are the project’s materials, strategies, faculty development activities, or assessment instruments/processes being used?</p> <ul style="list-style-type: none"> • At lead or subawardee institutions by people not directly involved with the project • At the project’s other participating institutions by people not directly involved with the project • At other institutions across the U.S. • At international institutions • None of the above 	X	X				X
	3. About Your Institution						
	Demographics						
	<p>Type of Institution: (one)</p> <ul style="list-style-type: none"> • 2-year Institution • 2-year Institution on a four-year college or university campus • Bachelors • Masters • Doctoral • Nonacademic institution • Other U.S. Department of Education IPEDs type: _____ 	X	X	X	X		
	<p>Special Institutional Designations (all that apply)</p> <ul style="list-style-type: none"> • Asian/Pacific Islander Serving College • Hispanic Serving Institution • Institution Primarily Serving Students with Disabilities • Minority Serving Institution • Native American Serving Nontribal College • Predominantly Black College • Historically Black College or University • Tribal College • None • Not Reported / Don’t Know 	X	X	X	X		
	4. About Subawardees and Other Participating Organizations						
	Subawardees						

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Were subaward funds expended or transferred from your CCLI/TUES award to any subawardees during the current reporting period? (mark all that apply)</p> <ul style="list-style-type: none"> • Yes, we disbursed subaward funds to one or more U.S. Degree-granting academic institutions during this period • Yes, we disbursed subaward funds to one or more non-academic organizations during this period • No, we had no subawardees/we disbursed no subaward funds this period [The system will not display Institution’s Information questions.] 	X	X	X		X	
	U.S. Degree-granting Institution’s Information [Provide the following information for the CCLI/TUES subaward institution. This subsection repeats for each institution]						
	Institution Name	X	X	X	X		
	Type of Institution: (one) <ul style="list-style-type: none"> • 2-year Institution • 2-year Institution on a four-year college or university campus • Bachelors • Masters • Doctoral • Nonacademic institution • Other U.S. Department of Education IPEDs type: _____ 	X	X	X	X		
	Special Institutional Designations (all that apply) <ul style="list-style-type: none"> • Asian/Pacific Islander Serving College • Hispanic Serving Institution • Institution Primarily Serving Students with Disabilities • Minority Serving Institution • Native American Serving Nontribal College • Predominantly Black College • Historically Black College or University • Tribal College • None • Not Reported / Don’t Know 	X	X	X	X		
	Number of faculty from this institution that were involved in the project	X	X	X		X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Number of students from this institution that were involved in the project	X	X	X		X	
	Nonacademic Institution's Information [Provide the following information for the CCLI/TUES subaward institution. This subsection repeats for each institution]						
	Organization Name	X	X	X	X		
	Type of Nonacademic Institution (all that apply) <ul style="list-style-type: none"> • Business • Consultant • National Laboratory • Museum • Non-Profit • Professional Society • Other, please specify: 	X	X	X	X		
	Other Participating Organizations						
	Did any other organizations participate significantly in your project during the current reporting period (not including subawardees)? <ul style="list-style-type: none"> • Yes • No [skip rest of subsection] • Don't know [skip rest of subsection] 	X	X	X		X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs																																				
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	<p>If yes, indicate how many of each type of organization participated in each of the categories below. It is okay to count the same organization or individual in multiple categories: [The column headers are: A. Number of Organizations participating significantly B. Number of faculty or professionals participating C. Number of students participating]</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>U.S. degree-granting academic institutions:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2-year Institutions</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2-year Institutions on a four-year college or university campus</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Bachelors-granting institutions</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Masters-granting institutions</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Doctorate-granting institutions</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other U.S. Department of Education IPEDs type: _____</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		A	B	C	U.S. degree-granting academic institutions:				2-year Institutions				2-year Institutions on a four-year college or university campus				Bachelors-granting institutions				Masters-granting institutions				Doctorate-granting institutions				Other U.S. Department of Education IPEDs type: _____				X	X	X			X				
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Asian/Pacific Islander Serving College																																											
Hispanic Serving Institution																																											
Institution Primarily Serving Students with Disabilities																																											
Minority Serving Institution																																											
Native American Serving Nontribal College																																											
Predominantly Black College																																											
Historically Black College or University																																											

New Elements	Common Collection Categories				Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
	Questions	A	B	C	Single	Lead Collaborative	Non-Lead Collaborative			
	Non-academic organizations Businesses Consultants National Laboratories Museums Non-profits Professional Societies Other type of non-academic organization				X	X	X			X
	5. Student, Faculty, and Staff Involvement in Project Activities									
	Do you have data about the approximate numbers of students, faculty, and staff engaged in or impacted by project activities during the current reporting period? <ul style="list-style-type: none"> • Yes • No [Skip rest of section] 				X	X			X	X
	During the current reporting period, did your institution, or any of your subawardee institutions, engage in any project activities or project work <i>independent of</i> the other awardee institutions in your CCLI/TUES Collaborative Project? <ul style="list-style-type: none"> • Yes, we or our subawardees engaged in independent project work. • No, all our work involved collaboration with other awardees in the CCLI/TUES Collaborative Project (If no, skip to section 5, but to ensure accurate counts please be sure that the Lead PI knows about your involvement in any collaborative project activities, particularly if there are any where the Lead institution was not directly involved) 						X		X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Did the <i>independent</i> project activities supported by this award during the current reporting period include developing, adapting, adopting, or using any of the following:</p> <ul style="list-style-type: none"> • Instructional materials • Instructional strategies • Assessment instruments or processes to assess student achievement • None of the above 			X		X	
	<p>Did the <i>independent</i> project activities supported by this award during the current reporting period include conducting research on undergraduate STEM education?</p> <ul style="list-style-type: none"> • Yes • No 			X		X	
	<p>Do you have data about the approximate numbers of students, faculty, and staff engaged in or impacted by this award's <i>independent</i> project activities during the current reporting period?</p> <ul style="list-style-type: none"> • Yes • No 			X		X	
	Instructional Materials, Strategies, and Assessment Components						
	Student Counts						
	Number of undergraduate students who used the instructional materials [through independent project activities supported by your CCLI/TUES award (and its subawards)]	X	X	X			X
	Number of undergraduate students who used the instructional materials through collaborative project activities supported by multiple CCLI/TUES awards		X				X
	Number of undergraduate students taught using the project's instructional strategies [through independent project activities supported by your CCLI/TUES award (and its subawards)]	X	X	X			X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Number of undergraduate students taught using the project's instructional strategies through collaborative project activities supported by multiple CCLI/TUES awards		X				X
	Number of undergraduate students whose knowledge, skills, or attitudes were assessed [through independent project activities supported by your CCLI/TUES award (and its subawards)]	X	X	X			X
	Number of undergraduate students whose knowledge, skills, or attitudes were assessed through collaborative project activities supported by multiple CCLI/TUES awards		X				X
	<i>Approximate Faculty and Staff Counts</i>						
	How many project faculty worked on the project's instructional materials [through independent project activities supported by your CCLI/TUES award (and its subawards)]?	X	X	X		X	
	How many project faculty worked on the project's instructional materials through collaborative project activities supported by multiple CCLI/TUES awards?		X			X	
	How many project faculty worked on the project's instructional strategies [through independent project activities supported by your CCLI/TUES award (and its subawards)]?	X	X	X		X	
	How many project faculty worked on the project's instructional strategies through collaborative project activities supported by multiple CCLI/TUES awards?		X			X	
	How many project faculty worked on the project's assessment instruments [through independent project activities supported by your CCLI/TUES award (and its subawards)]?	X	X	X		X	
	How many project faculty worked on the project's assessment instruments through collaborative project activities supported by multiple CCLI/TUES awards?		X			X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	How many project faculty used the project's materials, strategies, or assessment instruments with students [through independent project activities supported by your CCLI/TUES award (and its subawards)]?	X	X	X			X
	How many project faculty used the project's materials, strategies, or assessment instruments with students through collaborative project activities supported by multiple CCLI/TUES awards?		X				X
	How many project faculty conducted discipline-based educational research [through independent project activities supported by your CCLI/TUES award (and its subawards)]?	X	X	X		X	
	How many project faculty conducted discipline-based educational research through collaborative project activities supported by multiple CCLI/TUES awards?		X			X	
	How many non-instructional professional staff worked on the project [through independent project activities supported by your CCLI/TUES award (and its subawards)]? (e.g., lab technicians, professional staff associated with Centers for Teaching and Learning, and Centers for Institutional Research; Centers for Institutional Evaluation professional staff)	X	X	X		X	
	How many non-instructional professional staff worked on the project through collaborative project activities supported by multiple CCLI/TUES awards? (e.g., lab technicians, professional staff associated with Centers for Teaching and Learning, and Centers for Institutional Research; Centers for Institutional Evaluation professional staff)		X			X	
	How many non-instructional professional staff used the project's materials, strategies, or assessment instruments with students [through independent project activities supported by your CCLI/TUES award (and its subawards)]?	X	X	X			X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	How many non-instructional professional staff used the project’s materials, strategies, or assessment instruments with students through collaborative project activities supported by multiple CCLI/TUES awards?		X				X
	<i>Faculty Professional Development Events</i>						
	Did the project conduct any faculty professional development events during the current reporting period? <ul style="list-style-type: none"> • Yes • No [skip rest of subsection] 	X	X				X
	Did this award support any <i>independent</i> faculty professional development events during the current reporting period? <ul style="list-style-type: none"> • Yes • No [skip rest of subsection] 			X			X
	Approximate number of faculty development events conducted during the current reporting period [at independent events supported by your CCLI/TUES award (and its subawards)]	X	X	X			X
	Approximate number of faculty development events conducted during the current reporting period at collaborative events supported by multiple CCLI/TUES awards		X				X
	Approximate faculty involvement in professional development events during the current reporting period [at independent events supported by your CCLI/TUES award (and its subawards)]: <ul style="list-style-type: none"> • How many faculty were involved in creating the project’s faculty professional development events? • How many faculty were involved in leading the project’s faculty professional development events? • How many faculty participated as learners in the project’s faculty professional development events? 	X	X	X		X	X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Approximate faculty involvement in professional development events during the current reporting period at collaborative events supported by multiple CCLI/TUES awards:</p> <ul style="list-style-type: none"> • How many faculty were involved in creating the project’s faculty professional development events? • How many faculty were involved in leading the project’s faculty professional development events? • How many faculty participated as learners in the project’s faculty professional development events? 		X			X	X
	<p>Approximate graduate student and post-doc involvement in professional development events during the current reporting period [at independent events supported by your CCLI/TUES award (and its subawards)]:</p> <ul style="list-style-type: none"> • How many graduate students and post-docs were involved in creating the project’s faculty professional development events? • How many graduate students and post-docs were involved in leading the project’s faculty professional development events? • How many graduate students and post-docs participated as learners in the project’s faculty professional development events? 	X	X	X		X	X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Approximate graduate student and post-doc involvement in professional development events during the current reporting period at collaborative events supported by multiple CCLI/TUES awards:</p> <ul style="list-style-type: none"> • How many graduate students and post-docs were involved in creating the project's faculty professional development events? • How many graduate students and post-docs were involved in leading the project's faculty professional development events? • How many graduate students and post-docs participated as learners in the project's faculty professional development events? 		X			X	X
	<p>Other measures of involvement in your institution's faculty professional development events (approximately) [at independent events supported by your CCLI/TUES award (and its subawards)]:</p> <ul style="list-style-type: none"> • How many representatives from nonacademic organizations (e.g., professional societies, industry, community organizations) participated as learners? • How many institutions were represented? 	X	X	X			X
	<p>Other measures of involvement in your institution's faculty professional development events (approximately) at collaborative events supported by multiple CCLI/TUES awards:</p> <ul style="list-style-type: none"> • How many representatives from nonacademic organizations (e.g., professional societies, industry, community organizations) participated as learners? • How many institutions were represented? 		X				X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Other measures of involvement in your institution's faculty professional development events (approximately) [at independent events supported by your CCLI/TUES award (and its subawards)]:</p> <ul style="list-style-type: none"> • How many representatives from nonacademic organizations (e.g., professional societies, industry, community organizations) participated as learners? • How many institutions were represented at this award's independent faculty professional development events? 	X	X	X			X
	<p>Other measures of involvement in your institution's faculty professional development events (approximately) at collaborative events supported by multiple CCLI/TUES awards:</p> <ul style="list-style-type: none"> • How many representatives from nonacademic organizations (e.g., professional societies, industry, community organizations) participated as learners? • How many institutions were represented at this award's independent faculty professional development events? 		X				X
	6. Other Uses of Funds from this Award						
	Student Support						
	<p>During this reporting period, were funds from this award used to support students (undergraduate, graduate, or post-docs)?</p> <ul style="list-style-type: none"> • Yes • No [skip rest of subsection] 	X	X	X			X
	<p>If yes, how many students were paid to work on the project using funds from this award?</p> <ul style="list-style-type: none"> • Number of undergraduate students paid • Number of graduate students paid • Number of post-docs paid 	X	X	X			X

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Laboratory Instrument Purchases						
	Did you purchase scientific instruments for laboratory improvements with this award during this reporting period? <ul style="list-style-type: none"> • Yes • No [skip rest of subsection] 	X	X	X			X
	Number of instruments purchased with this award that cost more than \$5,000	X	X	X			X
	Total price of all laboratory instruments purchased with this award this period	X	X	X			X
	Where are these new laboratory instruments housed? (Or if they have not been received yet, where will they be housed?) (all that apply) <ul style="list-style-type: none"> • At [name of respondent's institution] • At [name of lead institution] • At [name of collaborating institution 1] • [... list all collaborating institutions ...] • At [name of subawardee institution 1] • [... list all subawardee institutions ...] • At other participating institutions • Other, please specify: 	X	X	X			X
	7. Project Management and Evaluation						

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	<p>Which of the following evaluation and assessment activities did you conduct during the current reporting period? (all that apply)</p> <ul style="list-style-type: none"> • Project evaluation for improving the project • Project evaluation for characterizing project accomplishments • Assessments of changes in knowledge, skills, or attitudes of participants for improving the project • Assessments of changes in knowledge, skills, or attitudes of participants for characterizing project accomplishments • None of the above (<i>If so, skip the next question</i>) 	X	X	X		X	
	<p>If you conducted evaluations or assessments, did the results of these influence the direction of the project?</p> <ul style="list-style-type: none"> • Yes • No <p>If yes, list the actions you took in response to what you learned, and describe the results of your actions [500 character textbox]</p> <p><i>Note: Your answers to this question will be analyzed by NSF so that a program-wide set of choices can be offered in subsequent data collection cycles. Please describe the actions you took with this in mind.</i></p>	X	X	X		X	
	<p>Did you use any project management tools during the current reporting period? If yes, please provide the name(s) of the tools, and describe any best practices. (Your answers to this question will be used to advise other awardees). [500 character textbox]</p>	X	X	X		X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Were the project activities supported by this award implemented in courses or course-related laboratory sections? <ul style="list-style-type: none"> • Yes • No <i>[skip the rest of subsection]</i> 	X	X	X			X
	In how many courses or course-related laboratory sections were project activities implemented? <ul style="list-style-type: none"> • Number • Don't know 	X	X	X			X
	Approximately how many students were enrolled in these courses or course-related laboratory sections <ul style="list-style-type: none"> • Number • Don't know 	X	X	X			X
	Approximately how many students successfully completed these courses or course-related laboratory sections with a grade of C or better? <ul style="list-style-type: none"> • Number • Don't know 	X	X	X			X
	8. Reflection						
	What is the single most important project accomplishment for the reporting period? [500 character textbox]	X	X	X			X
	What is the single most significant challenge that the project faced during the reporting period? [500 character textbox]	X	X	X		X	
	What changes were made to the project, as outlined in the proposal, during the reporting period? [500 character textbox]	X	X	X		X	
	9. Data Collection Personnel						
	<i>Person</i>						

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Name: Honorific First Middle Last Suffix	X	X	X	X		
	E-mail Address	X	X	X			
	Phone : Number Extension	X	X	X	X		
	Project Role (one) <ul style="list-style-type: none"> • Lead Primary Investigator (Lead PI) • Co- Primary Investigator (Co-PI) • Project Coordinator (PC) • Data Entry Personnel • Other, please specify: <p>If a new Lead PI is created: You have indicated that this award has a new lead PI. Please indicate the new lead PI's discipline: (one)</p> <ul style="list-style-type: none"> • Multidisciplinary or Interdisciplinary • Discipline-Based Education Research and Assessment • Astronomy • Biological Sciences • Chemistry • Computer Sciences • Engineering • Engineering Technology • Geosciences • Mathematical Sciences • Physics • Social and Behavioral Sciences • Other, please specify: 	X	X	X		X	
	Privileges [The Lead PI's privileges are automatically set to "yes" for all privileges.]	X	X	X		X	
	Will this person have the authority to enter data? <ul style="list-style-type: none"> • Yes • No 	X	X	X		X	

New Elements	Common Collection Categories Questions	Award Category			Staff and Project Participant Characteristics	Project Implementation Characteristics	Project Outputs
		Single	Lead Collaborative	Non-Lead Collaborative			
	Will this person have the authority to authorize additional personnel? <ul style="list-style-type: none"> • Yes • No 	x	x	x		X	
	Should this person receive announcements and reminders that are sent to your project's PIs from this system and from the data collection's technical support team? <ul style="list-style-type: none"> • Yes [Automatically "Yes" for project coordinators] • No 	x	x	x		X	

