

APPENDIX B2

GK-12 Monitoring System Crosswalk: Fellow

DATA ELEMENTS OF THE GRADUATE STEM FELLOWS IN K-12 EDUCATION

MONITORING SYSTEM (GK-12): FELLOW

(Data Collected Annually from NSF-Funded Graduate Fellows)

New Elements	Common Collection Categories	Staff and Project Participant	Project Implementation	Project Outputsⁱⁱⁱ
	1. Contact Information <i>Some data will be pre-filled with data entered by the PI</i>			
	Name: Title First name Middle name Last name Suffix	X		
X ¹	Social Security Number: (select one) I choose to report my full SSN: ___-__-____ I choose to report the last 4 digits of my SSN: ____ Other (if blank system assigns 999-99-9999): _____	X		
	Current Address: Street address 1 Street address 2 City State Zip or postal code	X		
	Phone: Number Extension	X		
X	Alternate Phone: Number Extension Type: (mark one) • U.S. number • Non-U.S. number	X		
	E-mail Address	X		
	2. Permanent Contact Information			
	Permanent Address: Street address 1 Street address 2	X		

¹ Formerly (previously cleared) SSN was reported by PIs on behalf of the fellows.

New Elements	Common Collection Categories	Staff and Project Participant	Project Implementation	Project Outputs
	Questions City State or country Zip or postal code			
	Permanent Phone: Number Extension	X		
X	Alternate Phone: Number Extension Type: (mark one) <ul style="list-style-type: none"> • U.S. number • Non-U.S. number 	X		
	Permanent E-mail Address			
	3. Demographic Information			
	Ethnicity: (select one) <ul style="list-style-type: none"> • Hispanic or Latino • Not Hispanic or Latino • Not reported 	X		
	Race: (mark one or more) <ul style="list-style-type: none"> • American Indian or Alaska Native • Asian • Black or African American • Native Hawaiian or Other Pacific Islander • White • Not reported 	X		
	Gender: <ul style="list-style-type: none"> • Female • Male • Not reported 	X		
	Citizenship: (select one) <ul style="list-style-type: none"> • U.S. citizen • Permanent resident • U.S. national • Non-U.S. citizen 	X		
X	Permanent Resident since: [reported only by permanent residents] Month Year	X		

New Elements	Common Collection Categories Questions	Staff and Project Participant	Project Implementation	Project Outputs
	Disability Status: (mark one or more) <ul style="list-style-type: none"> • None • Hearing impairment • Mobility or orthopedic impairment • Visual impairment • Not reported • Other (please specify) _____ 	X		
X	Place of Birth (U.S. State or Country)	X		
	4. Academic History			
X	Name of high school/secondary school/institution from which you graduated/received a diploma	X		
X	Location of High School (City, State or Country, and Zip or Postal code)	X		
X	School type (select one) <ul style="list-style-type: none"> • Public • Private • Other (please specify): _____ 			
	Undergraduate Degree			
	Institution: U.S. Institution (Name and State) OR International Institution: Name Country	X		
	Degree: (select one) <ul style="list-style-type: none"> • B.A. • B.S. • Other (please specify) _____ 	X		
	Discipline: (select one) <ul style="list-style-type: none"> • Chemistry - Analytical • ...see endnotes for complete list^{iv}... • STEM Education and Learning Research – Other (please specify): _____ • Other (please specify): _____ 	X		
X	Academic Department	X		
	Date of Completion: Month Year	X		
	Graduate Degree			
	Institution: U.S. Institution (Name and State) OR	X		

New Elements	Common Collection Categories Questions	Staff and Project Participant	Project Implementation	Project Outputs
	International Institution: Name Country			
	Degree: (select one) <ul style="list-style-type: none"> • M.A. • M.S. • Ph.D. • Other Postbaccalaureate Degree(please specify) _____ 	X		
	Discipline: (select one) <ul style="list-style-type: none"> • Chemistry - Analytical • ...see endnotes for complete list... • STEM Education and Learning Research – Other (please specify): _____ • Other (please specify): _____ 	X		
X	Academic Department	X		
	Date of Completion: Month Year	X		
	5. Previous Employment and Teaching Experience			
X	Do you have a K-12 teaching certification? <ul style="list-style-type: none"> • Yes, please specify _____ • No 	X		
X	Do you have any prior K-12 teaching experience? <ul style="list-style-type: none"> • Yes, please specify _____ • No 	X		
X	Have you taken/are you taking any education certification courses? <ul style="list-style-type: none"> • Yes, please specify _____ • No 	X		
X	Were you employed in the public or private sector for 1 or more years after receiving your first undergraduate degree and prior to becoming a GK-12 fellow? <ul style="list-style-type: none"> • Yes • No 	X		
X	Total number of years (equal to or greater than 1 year, to the nearest year) you were employed in the public or private sector after receiving your first undergraduate degree and prior to becoming a GK-12 fellow	X		
	6. Current Graduate Work			
	Current Graduate Institution: _____	X		
	Date when you started your program: Month	X		

New Elements	Common Collection Categories Questions	Staff and Project Participant	Project Implementation	Project Outputs
	Year			
X	Expected Graduation Date Month Year	X		
X	<p>If you expect to graduate within one year, what type of employment are you pursuing? (check all that apply)</p> <ul style="list-style-type: none"> • Government - Postdoc • Government - Full-time position • Government - Part-time position • Industry/Business - Postdoc • Industry/Business - Full-time position • Industry/Business - Part-time position • Educational Institution (college, University, or K-12) - Postdoc • Educational Institution (college, University, or K-12) - Tenure-track faculty • Educational Institution (college, University, or K-12) - Non-tenure-track faculty • Educational Institution (college, University, or K-12) - Staff • Nonprofit - Postdoc • Nonprofit - Full-time position • Nonprofit - Part-time position • Self-employed/Entrepreneur 			X
X	<p>If you expect to graduate within one year, what type of employment would you prefer most? (check one)</p> <ul style="list-style-type: none"> • Government - Postdoc • Government - Full-time position • Government - Part-time position • Industry/Business - Postdoc • Industry/Business - Full-time position • Industry/Business - Part-time position • Educational Institution (college, University, or K-12) - Postdoc • Educational Institution (college, University, or K-12) - Tenure-track faculty • Educational Institution (college, University, or K-12) - Non-tenure-track faculty • Educational Institution (college, University, or K-12) - Staff • Nonprofit - Postdoc • Nonprofit - Full-time position • Nonprofit - Part-time position • Self-employed/Entrepreneur 			X
	<p>Academic level during fellowship year: (select one)</p> <ul style="list-style-type: none"> • Master's 1st year • Master's 2nd year • Master's 3rd year • Doctorate 1st year • Doctorate 2nd year • Doctorate 3rd year • Doctorate 4th year • Doctorate 5th year • Other (please specify level and year) _____ 	X		

New Elements	Common Collection Categories Questions	Staff and Project Participant	Project Implementation	Project Outputs
	Discipline: (select one) <ul style="list-style-type: none"> • Chemistry - Analytical • ...see endnotes for complete list... • STEM Education and Learning Research – Other (please specify): _____ • Other (please specify): _____ 	X		
X	Academic Department	X		
X	Amount of NSF funds in your GK-12 stipend for the current academic year: (select one) <ul style="list-style-type: none"> • \$30,000 stipend • \$10,500 cost of education • Less than \$10,500; specify the amount:\$_____ 		X	
X	Did you have to pay tuition and fees in excess of the \$10,500 allowance for the cost of education? <ul style="list-style-type: none"> • Yes • No If yes, how much did you have to pay?	X		
X	How does your fellowship stipend compare to stipends received by regular teaching or research fellowships at your institution? <ul style="list-style-type: none"> • Greater than others • Equal to others • Less than others • Do not know 		X	
	What is your research topic? (<i>research topic does not have to be related to GK-12</i>)	X		
X	Does your research involve the following: (check all that apply) <ul style="list-style-type: none"> • Bioinformatics • Biotechnology • Civil Infrastructure • Climate change • Computational Science and Engineering • Cyber infrastructure Enabled Discovery and Learning • Device Development • Energy and Alternative Energy • Entrepreneurialism • Evolution and Development • Materials Science and Engineering • Nanoscience and Nanotechnology • Neuroscience: Biology and Psychology • Sensing, Signals, Imaging and Signal Processing • Social and Behavioral Sciences • Sustainability, Ecology and the Environment • Water and water quality • Other leading-edge science (please specify): _____ 	X		

New Elements	Common Collection Categories	Staff and Project Participant	Project Implementation	Project Outputs
	Questions			
	7. Research Advisor Information			
	Advisor's Name: Title First name Middle name Last name Suffix	X		-
	Advisor's Academic Discipline: (select one) • Chemistry - Analytical • ...see endnotes for complete list... • STEM Education and Learning Research – Other (please specify): _____ • Other (please specify): _____	X		
X	Advisor's Academic Department	X		
	Advisor's phone: Number Extension	X		
	Advisor's E-mail Address	X		
	8. Interactions with K-12 Students			
X	Teachers you worked with as part of your GK-12 participation: (select all that apply) • Teacher 1 • Teacher 2 ...		X	
X	Schools, organizations and other locations you worked with as part of your GK-12 participation: (select all that apply) • School/organization 1 • School/organization 2 ...		X	
	Class You Worked With as Part of Your GK-12 Participation			
	School		X	
X	Teacher(s) of This Class (select all that apply) • Teacher 1 • Teacher 2 • ...		X	
X	Class Name		X	
X	Additional Identifying Information (e.g. period, time, marking period)		X	

New Elements	Common Collection Categories	Staff and Project Participant	Project Implementation	Project Outputs
X	Questions Grade of students (mark all that apply) <ul style="list-style-type: none"> • K—Kindergarten • 1--1st grade • 2 --2nd grade • 3---3rd grade • 4 --4th grade • 5 --5th grade • 6 --6th grade • 7--7th grade • 8 --8th grade • 9-- 9th grade • 10 --10th grade • 11 --11th grade • 12 --12th grade 		X	
X	Subjects (select one) <ul style="list-style-type: none"> • Mathematics—Elementary • Mathematics—General • Mathematics—Middle school • Mathematics—High school (secondary) • Science—Elementary school • Science—General • Science—Integrated science • Science—Biology • Science—Chemistry • Science—Earth science • Science—Physical science • Science—Physics • Science—Social • Computer science • Other (please specify) _____ 		X	
X	How is this course considered? <ul style="list-style-type: none"> • Honors/AP/IP • Academic • Non-Academic 		X	
X	Number of students			X
Out-of-Classroom GK-12 Activity				
X	Schools and organizations you worked with as part of your GK-12 participation in this out-of-classroom activity with K-12 students: (select all that apply from preloaded list and add nonpartners) <ul style="list-style-type: none"> • School/organization 1 • School/organization 2 ... Organizations not partnered with project		X	
X	Activity Type(s): (check all that apply) <ul style="list-style-type: none"> • After school science club 		X	

New Elements	<p style="text-align: center;">Common Collection Categories</p> <p>Questions</p>	Staff and Project Participant	Project Implementation	Project Outputs																																									
	<ul style="list-style-type: none"> • Community outreach on STEM • Field trips • Informal science education activities • Science fair • Schoolyard activities • University/laboratory visits • Other (please specify): _____ 																																												
X	Number of K-12 teachers you worked with as part of your out-of-classroom GK-12 activity		X																																										
X	Number of K-12 students you worked with as part of your out-of-classroom GK-12 activity			X																																									
Overall Classroom Experience																																													
To what extent did you integrate your research into the GK-12 classroom experience for each of the items listed below (for each item choose one rating)																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 30%;"><i>Item</i></th> <th colspan="5" style="text-align: center;"><i>Integration of Research</i></th> </tr> <tr> <th style="text-align: center;"><i>Not at All</i></th> <th style="text-align: center;"><i>One Time</i></th> <th style="text-align: center;"><i>Several</i></th> <th style="text-align: center;"><i>Ongoing</i></th> <th style="text-align: center;"><i>Incorporated Into Curriculum</i></th> </tr> </thead> <tbody> <tr> <td>Developed module/lesson plan</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Special presentation</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Involved teacher in research</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Involved students in research</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Other (please specify) _____</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>					<i>Item</i>	<i>Integration of Research</i>					<i>Not at All</i>	<i>One Time</i>	<i>Several</i>	<i>Ongoing</i>	<i>Incorporated Into Curriculum</i>	Developed module/lesson plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Involved teacher in research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Involved students in research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	<p>Please check the activities that you participated in while in the classroom: (check all that apply)</p> <ul style="list-style-type: none"> • Serving as a role model for students • Adapting scientific expertise to the appropriate grade level • Working collaboratively with teachers • Working with students during class • Enhancing lessons/curriculum • Serving as a scientist in the classroom • Showing teachers and students how to use new tools, technology, instrumentation, and measurement • Other (please specify): _____ 			X																																									

New Elements	Common Collection Categories	Staff and Project Participant Participation	Project Implementation	Project Outputs																																			
	Questions																																						
	9. Honors and Awards During GK-12 Project Participation																																						
	<input type="checkbox"/> Select if no honors or awards to report			X																																			
	Honor or Recognition			X																																			
	Name of honor or recognition			X																																			
	Organization granting the award			X																																			
	Year earned			X																																			
	Other Award: Fellowship, Scholarship, or Grant Other Than GK-12																																						
	Title of the proposal			X																																			
	Awarding agency			X																																			
	Year awarded			X																																			
	10. Development Activities																																						
	Average hours per week spent on GK-12 activities		X																																				
	Did you participate in regular training throughout the year specific to your GK-12 project <ul style="list-style-type: none"> • Yes • No, Elaborate why not (and skip the next two questions) 			X																																			
	Format of training (check all that apply) <ul style="list-style-type: none"> • Courses • Seminars • Workshops • Other (please specify): _____ 			X																																			
	Training received: <table border="1" data-bbox="170 1276 1200 1824"> <thead> <tr> <th rowspan="2">Activity</th> <th colspan="5">Frequency (mark one frequency per activity)</th> </tr> <tr> <th>Summer</th> <th>Weekly</th> <th>Bimonthly</th> <th>Monthly</th> <th>Other (please specify)</th> </tr> </thead> <tbody> <tr> <td>I took coursework/training (e.g., new courses, seminars) that included regular critique of and feedback on communication skills</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>I received training in collaboration and team building</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>I received training in developing leadership skills</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> </tr> <tr> <td>I received training in pedagogy (i.e., science of teaching, education, and instructional methods)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td></td> </tr> </tbody> </table>	Activity	Frequency (mark one frequency per activity)					Summer	Weekly	Bimonthly	Monthly	Other (please specify)	I took coursework/training (e.g., new courses, seminars) that included regular critique of and feedback on communication skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		I received training in collaboration and team building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		I received training in developing leadership skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		I received training in pedagogy (i.e., science of teaching, education, and instructional methods)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				X
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New Elements	Common Collection Categories Questions	Staff and Project Participant	Project Implementation	Project Outputs
	<p>all that apply)</p> <ul style="list-style-type: none"> • Attended a conference/workshop outside of the U.S. • Undertook coursework/training outside of the U.S. • Worked as a team with teachers and students overseas • Worked, conducted research/field work, or interned outside of the U.S. • Worked with my classroom teacher overseas • Participated in other international activities (please specify): _____ 			
X	<p>Is this international experience related to your current graduate research? (select one)</p> <ul style="list-style-type: none"> • Yes • No 	X		
X	<p>Most beneficial professional or career related aspect of this international activity</p>			X
X	<p>Were you prepared for your international experience?</p> <ul style="list-style-type: none"> • Yes • No 		X	
X	<p>How were you prepared prior to the international visit? (check all that apply)</p> <ul style="list-style-type: none"> • Course • Seminar • Workshop • Other (please specify): _____ 		X	
X	<p>What experiences were included in the preparation for your international experience? (check all that apply)</p> <ul style="list-style-type: none"> • How to work in a foreign laboratory/field work • Graduate education/Education/ laboratory differences in country to be visited • Language • Cultural differences • Learning about the area • Other (please specify): _____ 		X	
X	<p>What did you accomplish?</p>			X
X	<p>What types of accomplishments apply to your international experience? (check all that apply)</p> <ul style="list-style-type: none"> • Awards/Honors/Recognitions • Invention/Patent • Presentations • Publications • Other (please specify): _____ 			X
X	<p>Do you plan to continue with this international collaboration?</p> <ul style="list-style-type: none"> • Yes • No 		X	
X	<p>Specify why you do or do not plan to continue with this international collaboration</p>		X	
	12. Research and Professional Experience			

New Elements	<p style="text-align: center;">Common Collection Categories</p> <p>Questions</p>	Staff and Project Participant	Project Implementation	Project Outputs
X	<p>How involved was your faculty advisor in your GK-12 activities? (select one)</p> <ul style="list-style-type: none"> • Not involved • Somewhat involved • Involved • Regularly involved 		X	
	<p>How did participation in GK-12 activities affect your graduate research productivity? (check all that apply)</p> <ul style="list-style-type: none"> • I am better organized. • I find my work time is too fragmented. • I am better able to write about my research results. • I am better able to focus on my research. • I have less time to focus on my research. • I am better prepared to present research findings to broad (scientific and nonscientific) audiences. • Other (please specify): _____ 			X
	<p>How did your GK-12 participation affect your professional pursuits and career goals as a scientist? (check all that apply)</p> <ul style="list-style-type: none"> • I have been better able to figure out what I want to pursue as a career. • I am better prepared for a career in academia. • I am better prepared to pursue a career that involves research and teaching. • I will now consider a wider array of career paths than I did before GK-12. • I am committed to contributing to K–12 STEM education at some point in my career. • I better understand the importance of the role of a scientist in K–12 education. • I am a more globally engaged scientist. • Other (please specify): _____ 			X
	<p>Check the areas in which your knowledge/skills have improved as a result of your GK-12 participation. (check all that apply)</p> <ul style="list-style-type: none"> • Professional and academic writing skills • Pedagogy/teaching skills • Professional speaking or presentation skills • Team building/collaboration skills • Communicating science or math concepts to diverse audiences • Communicating my research and/or area of expertise • Other (please specify): _____ 			X
	<p>Involvement with the GK-12 program</p>			
X	<p>Most important thing you gained from participating in the GK-12 program</p>			X
X	<p>Most important contribution you made to the GK-12 program</p>			X
X	<p>List up to two concerns about or areas of improvement for the GK-12 program or your experience with the program.</p> <p>Concern 1</p> <p>Concern 2</p>			X

