National Science Foundation Research Traineeship (NRT) Program

Project Instrument

Version: Draft Prepared by CBS and NSF

This instrument is filled out by the PI, Project Coordinator, and any CO-PI that the PI has granted permission to.

This instrument can only be submitted to NSF by the PI.

1 Table of Contents

1	TABLE OF CONTENTS	2
2	CONVENTIONS IN THIS DOCUMENT	4
	2.1 Survey Preparation Checklist	7
	2.2 Update Trainee List	
	2.2.2 Add / Edit an NRT Funded Trainee	9
	2.2.3 Add / Edit a Non-NRT Funded Trainee	
	2.3 INTERNATIONAL EXPERIENCES	
	2.3.1.2 Add International Experience	
	2.4 Project Personnel	
	2.4.2 Ådd / Edit a Project Coordinator	
	2.4.3 Add / Edit Evaluator	
	2.4.4 Add / Edit Co-PI or Faculty Participant	
	2.5 Project Funding	
	2.6 Project Goals and Logic Model	
	2.7 COLLABORATIONS	
	2.7.2 Add / Edit Collaboration	
	2.7.2.2 Add / Edit Academic Partner	
	2.7.2.3 Add / Edit Government Partner	
	2.7.2.4 Add / Edit Corporate or Industrial Partner	
	2.7.2.5 Add / Edit Other Partner	
	2.8 Accomplishments and Impacts	
	2.8.1.2 Add Accomplishment and Impact	40
	2.9 Products	
	2.9.1 Journal or Juried Conference Paper	
	2.9.1.2 Add Journal or Juried Conference Paper	
	2.9.2 Book	
	2.9.2.2 Add Book	
	2.9.3 Book Chapter	
	2.9.3.2 Add Book Chapter	
	2.9.4 Invention	
	2.9.4.2 Add Invention	
	2.9.5 License	
	2.9.5.2 Add License	
	2.9.6 Other Conference Presentation / Paper	
	2.9.6.2 Add Other Conference Presentation/Paper	
	2.9.7 Other Product 2.9.7.2 Add Other Product	
	2.9.7.2 Add Other Product 2.9.8 Other Publication	
	2.9.8.2 Add Other Publication	
	2.9.9 Patent Application	
	2.9.9.2 Add Patent	
	2.9.10 Technology and Technique	
	2.9.10.2 Add Technology and Technique.	
	2.9.11 Thesis / Dissertation	
	2.9.11.2 Add Thesis/Dissertation	
	2.9.12 Website or Other Internet Site	
	2.9.12.2 Add Website	
	2.10 PROFESSIONAL SKILL DEVELOPMENT ACTIVITIES	
	2.10.2 Add Professional Skill Development Activity	
	2.11 TRAINEE PREPARATION	
	2.11.1 Career Paths	
	2.11.2 Trainee Preparation in Interdisciplinary/Convergence Research	
	· · · · · · · · · · · · · · · · · · ·	

2.11.2.2	Add Practice and Measure	79
2.11.3	Trainee Preparation in Professional Skills	
2.11.3.2	Add Training Activity	82
2.11.4	Trainee Preparation in Professional Skills Add Training Activity Trainee Preparation for STEM Careers	
2.12 STRA	TEGIES FOR BROADENING PARTICIPATION	
0100	Descuitment	96
2.12.2.2	Add Recruitment Strategy and Result <i>Retention</i> Add Retention Strategy and Result REACH ACTIVITIES Add Outreach Activity ECT EVALUATION AND ADVISORY COMMITTEE	91
2.12.3	Retention	
2.12.3.2	Add Retention Strategy and Result	93
2.13 OUT	REACH ACTIVITIES	94
2.13.1.2	Add Outreach Activity	95
2.14 Proj	ECT EVALUATION AND ADVISORY COMMITTEE	97
2.14.1	Advisory Committee	
2.14.2	Project Evaluation	
2.15 INST	Advisory Committee Project Evaluation ITUTIONAL IMPACTS	
2.16 Chan	IGES/PROBLEMS Add Change/Problem	
2.16.1.2	Add Change/Problem	
2.17 Fina	l Submission to NSF	

2 Conventions in this document

The conventions described below are an attempt to render dynamic UI elements and interactive content and behaviors in this static word document.

0	Radio Button (select one in the group)	
0	Checkbox (select any in the group)	
	Textbox (enter text)	
Option 1 Option 2 Option 3	Dropdown box (Select one)	
Searchable list of things	A search box that will narrow the results as the user types, e.g., states and countries	
Date Picker	When the user selects the control a date picker will appear. They can also enter the date via the keyboard.	
Single Add	As the user types a list of matching values will appear in a dropdown list. The user can click on an entry in the list, and it will be added to the textbox in a pill format. If the string of characters is new the user can hit tab/enter and the new value will also turn into a pill.	
Multi Add	X Alaska Same as Single Add but the user will then be able to enter further values. This is an example:	
	× Alaska × Hawaii	

[Button]	A button that performs an action. Added for context around managing lists and final submit
<information></information>	Text in angle brackets is inserted by the system and is read-only.
[Read only]	These data are read-only and can only be changed by contacting support.
[Read only after first year]	The data are read-only after the first year. After the first year these data can only be changed by contacting support
[Preloaded]	These data are pre-loaded at the beginning of the reporting period.
[Copied]	These data are copied from the previous year when preparing for a new reporting period.
[Change management]	These data are subject to other rules when they change.
{Skip Ref A-Z}	Indicates that a response to this question affects other questions after it.
{Skip when A-Z}	Indicates that the question should be skipped if the skip reference meets a certain criteria

This is instructional text

Instructions to the respondents

2.1 Survey Preparation Checklist

Update Trainee List
Add International Experiences

1

[Open Trainee Surveys]

2.2 Update Trainee List

2.2.1.1.1.1 How do NRT trainees in your program earn their degree?

Mark all that apply. Required [Copied]

- Trainees earn their degrees from the NRT multidisciplinary/interdisciplinary program.
- Trainees earn their degrees from traditional single-discipline departments.
- Trainees earn their degrees from multidisciplinary/interdisciplinary programs, centers, or units other than NRT.
- Other (certificates, etc.) {*Skip Ref A*}

2.2.1.1.1.2 If Other, please specify:

{Skip if A unchecked} Limit 5 items Multi Add

2.2.1.1.1.3 List of Funded NRT Trainees

[Copied]

Respondents can enter as many funded trainees as they wish.

- Trainee 1 [Edit], [Delete], [Left Project], [Move to Unfunded]
- Trainee 2 [Edit], [Delete], [Left Project], [Move to Unfunded]

[Add Funded Trainee]

2.2.1.1.1.4 List of Non-Funded NRT Trainees

[Copied]

Respondents can enter as many non-funded trainees as they wish.

- Trainee 1 [Edit], [Delete], [Left Project], [Move to Funded]
- Trainee 2 [Edit], [Delete], [Left Project], [Move to Funded]

[Add Unfunded Trainee]

2.2.2 Add / Edit an NRT Funded Trainee

Note: Information that your trainees provide will <u>not</u> be available to you. However, you will have access to a monitoring system that allows you to see the progress of their submissions, i.e., which sections they have successfully completed.

2.2.2.1.1.1 First Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.2.2.1.1.2 Middle Name or Initial

[Copied] [Read only] [Change management]

2.2.2.1.1.3 Last Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.2.2.1.1.4 Email Address

Required Limit 50 characters [Copied] [Read only] [Change management]

2.2.2.1.1.5 When did the trainee first enroll in graduate study at this institution?

Required (mm/yyyy) [Copied] [Read only after first year]

Date Picker

2.2.2.1.1.6 When did the trainee first begin receiving NRT funding?

Required	
(mm/yyyy)	
[Copied]	
[Read only after first year]	
Date Picker	

2.2.2.1.1.7 Did the trainee receive a stipend from the NRT program? (**Note:** A trainee who received NRT funding for <u>any or all of the current reporting period</u> is an NRT Funded Trainee.)

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

2.2.2.1.1.8 Enter the number of months the trainee was funded by NRT. If the trainee received NRT funding for a portion of a month, please round up to the nearest whole number.

Required if above is Funded Trainee

{Skip if A is "No"}

1 Month
2 Months
3 Months
4 Months
5 Months
6 Months
7 Months
8 Months
9 Months
10 Months
11 Months
12 Months

2.2.2.1.1.9 Current NRT faculty advisor(s)

Read-only list (entered by the trainee on their instrument)

- Faculty Advisor 1
- Faculty Advisor 2

2.2.2.1.1.10 Is the trainee currently an active participant in this NRT project (e.g., still engaged in NRT program activites)?

Select one. Required {<mark>Skip Ref B</mark>}

🗌 Yes 🗌 No

2.2.2.1.1.11 Date trainee left project

<mark>{Skip if B is "Yes"}</mark> (mm/yyyy) Date picker

2.2.2.1.1.12 Please describe the current situation that best describes this NRT trainee.

Select one.

Required

- Has not yet graduated but is pursuing a Ph.D. at your institution
- Has not yet graduated but is pursuing a master's degree at your institution
- Has graduated from your institution with a Ph.D. *[Skip Ref C]*

2.2.2.1.1.13 Enter month/year of Ph.D. graduation

(mm/yyyy) <u>{Skip if C is unchecked}</u> Date picker

Has graduated from your institution with a master's degree {*Skip Ref D*}

2.2.2.1.1.14 Enter month/year of master's degree graduation

(mm/yyyy) {Skip if D is unchecked} Date picker

Has left your institution without earning a degree {*Skip Ref E*}

2.2.2.1.1.15 Enter month/year departed institution

(mm/yyyy) {Skip if E is unchecked} Date picker

2.2.3 Add / Edit a Non-NRT Funded Trainee

Note: Information that your trainees provide will not be available to you. However, you will have access to a monitoring system that allows you to see the progress of their submissions, i.e., which sections they have successfully completed.

2.2.3.1.1.1 First Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.2.3.1.1.2 Middle Initial or Name

[Copied] [Read only] [Change management]

2.2.3.1.1.3 Last Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.2.3.1.1.4 Email Address

Required Limit 50 characters [Copied] [Read only] [Change management]

2.2.3.1.1.5 When did the trainee first enroll in graduate study at this institution?

Required (mm/yyyy) [Copied]

[Read only after first year]

Date picker

2.2.3.1.1.6 When did the trainee first begin participating in the NRT project?

Required	
(mm/үүүү)	
[Copied]	
[Read only after first year]	
Date picker	

2.2.3.1.1.7 Has the trainee been engaged in NRT activities, research, education, or training?

Select one. Required

∏ Yes ∏ No

2.2.3.1.1.8 Current NRT faculty advisor(s)

Read-only list (entered by the trainee on their instrument)

- Faculty Advisor 1
- Faculty Advisor 2

2.2.3.1.1.9 Please indicate – to the best of your knowledge – the sources of support the trainee received.

Mark all that apply.

Required

- ☐ Fellowship, scholarship
- Dissertation grant
- Teaching, research, or other assistantship
- □ Traineeship
- Internship, clinical residency
- Employer reimbursement/assistance
- **Foreign** (non-U.S.) support

Personal sources: This may include loans, personal savings, personal

- earnings (aside from sources listed above), partner's or family's earnings or savings.
- Unknown
- Other {*Skip Ref A*}

2.2.3.1.1.10 If other type, please specify:

{Skip if A is unchecked} Limit 100 characters

2.2.3.1.1.11 Is the trainee currently an active participant in this NRT project (e.g., still engaged in NRT program activites)?

Select one. Required <mark>{Skip Ref B}</mark>

🗌 Yes 🗌 No

2.2.3.1.1.12 Date trainee left project

{Skip if B is "Yes"} (mm/yyyy) Date picker

2.2.3.1.1.13 Please describe the current situation that best describes this non-NRT funded trainee.

Select one.

Required

- Has not yet graduated but is pursuing a Ph.D. at your institution
- Has not yet graduated but is pursuing a master's degree at your institution
- Has graduated from your institution with a Ph.D. *(Skip Ref C)*

2.2.3.1.1.14 Enter month/year of Ph.D. graduation

{Skip if C is a	unchecked}
(mm/yyyy)	
Date picker	

Has graduated from your institution with a master's degree {*Skip Ref D*}

2.2.3.1.1.15 Enter month/year of master's degree graduation

{Skip if D is	unchecked}
(mm/yyyy)	
Date picker	

Has left your institution without earning a degree {*Skip Ref E*}

2.2.3.1.1.16 Enter month/year departed institution

{Skip if E is unchecked} (mm/yyyy) Date picker

2.3 International Experiences

2.3.1.1.1.1 Did your NRT project involve any international experiences?

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

{Skip if A is "No" - Begin}

2.3.1.1.1.2 Please enter an International Experience for each country trainees visited

Respondents can enter as many International Experiences as they wish.

- International Experience 1 [Edit], [Delete]
- International Experience 2 [Edit], [Delete]

[Add International Experience]

{Skip A End}

2.3.1.2 Add International Experience

2.3.1.2.1.1 Country

Select one.	
Required	
Searchable list of all countries	

2.3.1.2.1.2 Estimated start date

Required		
<u>(mm/yyyy)</u>		
Date picker		

2.3.1.2.1.3 Estimated end date

Required		
(mm/yyyy)		
Date picker		

2.3.1.2.1.4 Trainees involved:

Mark all that apply. Selection is made from trainees participating in current award. Required

- Trainee 1
- Trainee 2

2.3.1.2.1.5 Which of the following international actions or work in this country involved trainees?

Mark all that apply.

Required

- Trainees attended conferences/workshops.
- Trainees undertook coursework/training.
- Trainees worked, conducted research/field work, or interned in industrial settings.
- Trainees worked, conducted research/field work, or interned in academic settings.
- Trainees worked, conducted research/field work, or interned in other settings (e.g., national laboratories, nongovernmental organizations).
- Other international actions/work. {*Skip Ref A*}

2.3.1.2.1.6 If Other, please specify:

{*Skip if A unchecked*}

Limit 5 items

Multi Add

2.4 Project Personnel

2.4.1.1.1.1 Coordinator(s)

[Copied]

Respondents can enter as many Coordinators as they wish.

- Coordinator 1 [Edit], [Delete]
- Coordinator 2 [Edit], [Delete]

[Add Project Coordinator]

2.4.1.1.1.2 Evaluator(s)

[Copied]

Respondents can enter as many Evaluators as they wish.

- Evaluator 1 [Edit], [Delete]
- Evaluator 2 [Edit], [Delete]

[Add Evaluator]

2.4.1.1.1.3 CO-PIs and Faculty Participants

[Copied]

Respondents can enter as many CO-PIs and Faculty Participants as they wish.

- CO-PI 1 [Edit], [Delete]
- Faculty Participant 1 [Edit], [Delete]

[Add CO-PI or Faculty Participant]

2.4.2 Add / Edit a Project Coordinator

2.4.2.1.1.1 First Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.4.2.1.1.2 Middle Initial or Name

[Copied] [Read only] [Change management]

2.4.2.1.1.3 Last Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.4.2.1.1.4 Email Address

Required Limit 200 characters [Copied] [Read only] [Change management]

2.4.3 Add / Edit Evaluator

2.4.3.1.1.1 First Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.4.3.1.1.2 Middle Initial or Name

[Copied] [Read only] [Change management]

2.4.3.1.1.3 Last Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.4.3.1.1.4 Email Address

Required Limit 200 characters [Copied] [Read only] [Change management]

2.4.3.1.1.5 Is this individual considered an internal or external evaluator for the program?

Select one. Required [Copied]

Internal

External

2.4.3.1.1.6 Institution Name

Required Limit 50 characters [Copied]

2.4.3.1.1.7 Department at Institution

Limit 200 characters [Copied]

2.4.3.1.1.8 Institution's City

Required Limit 200 characters [Copied]

2.4.3.1.1.9 Institution's State

Required [Copied] Searchable dropdown containing all states

2.4.3.1.1.10 ZIP Code

Required Limit 5 characters [Copied]

2.4.3.1.1.11 Phone (xxx-xxx-xxxx)

Required Limit 10 characters [Copied]

2.4.3.1.1.12 Extension

Limit 5 characters [Copied]

2.4.4 Add / Edit Co-PI or Faculty Participant

2.4.4.1.1.1 First Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.4.4.1.1.2 Middle Initial or Name

[Copied] [Read only] [Change management]

2.4.4.1.1.3 Last Name

Required Limit 50 characters [Copied] [Read only] [Change management]

2.4.4.1.1.4 Email Address

Required Limit 200 characters [Copied] [Read only] [Change management]

2.4.4.1.1.5 Role in Project:

Select one. Required [Copied]

Co-PI

Faculty Participant

2.5 Project Funding

No

2.5.1.1.1.1 Does your NRT project include undergraduate involvement?

Select one. Required {Skip ref A} [Copied]] Yes]

2.5.1.1.1.2 If yes, were NSF NRT funds used for undergraduate involvement?

{Skip if A is No} Select one. Required if above is Yes [Copied] Π Yes Π No 2.5.1.1.1.3 Does your NRT project involve postdoctoral scholars? Select one. Required [Copied] {*Skip Ref B*} Yes Π Π No 2.5.1.1.1.4 If yes, were NSF NRT funds used for postdoctoral involvement? Select one.

Required if above is Yes [Copied] {Skip if B is "No"}

🗌 Yes 🗌 No

2.5.1.1.1.5 Do you have a standard or continuing grant?

Select one. Required {Skip Ref C}

- Standard
- Continuing

{Skip if C is "Standard" OR project is not in year 5 - Begin}

2.5.1.1.1.6 Do you anticipate any carryover funds?

Select one. Required

- 🗌 Yes
- □ No {*Skip Ref D*}

{Skip if D is "No" - Begin}

2.5.1.1.1.7 Estimate—to the nearest dollar—the NRT funds that will be carried over to the next year as of the project start date anniversary (the date when your annual report will be due in FastLane).

Required Dollar amount greater than 0 \$

2.5.1.1.1.8 Please provide an explanation if carryover funds are anticipated (i.e., funds greater than 0).

Required Limit 1000 characters

{Skip D End} {Skip C End}

2.6 Project Goals and Logic Model

Please briefly describe the major goals and objectives (both overall <u>and</u> current reporting period) for interdisciplinary research, education, and training efforts. In addition, include a brief description of the education and training model adopted by your project, and upload your logic model.

2.6.1.1.1.1 Describe the <u>overall</u> project goals and objectives.

Required	l
Limit 10	00 characters
[Copied]	

2.6.1.1.1.2 Describe the project goals and objectives for the <u>current reporting period</u>.

Required Limit 1000 characters

2.6.1.1.1.3 Upload logic model (PDF):

Required [Copied]

[Upload]

2.6.1.1.4 Please indicate the estimated size of the graduate student population benefitting from your project. This population includes both NRT funded and non-NRT unfunded trainees as well as other graduate students that may participate in some of the NRT activities.

Required

2.7 Collaborations

2.7.1.1.1 Were there active collaborations outside of your university through your NRT project?

Select one. Required {Skip Ref A}] Yes] No

{Skip if A is "No" Begin}

Examples of collaborations include other academic institutions (including NRT partners), industrial or corporate partners, government agencies and laboratories, and nonprofit organizations. If you are in doubt, about whether to include information on a specific relationship between your NRT project and another organization, please include the information.

2.7.1.1.1.2 Collaborations

At least one collaboration required if 'Yes'

- Collaboration 1 [Edit], [Delete]
- Collaboration 2 [Edit], [Delete]

[Add Collaboration]

{End Skip A}

2.7.2 Add / Edit Collaboration

2.7.2.1.1.1 Briefly describe this collaboration

Limit 1000 characters [Copied]

2.7.2.1.1.2 Accomplishments and outcomes: Please describe all key accomplishments or outcomes (not activities) of this collaboration.

Limit 1000 characters

2.7.2.1.1.3 I approve making the details of this collaboration available for use on <u>www.nrtprogram.org</u>, viewable by the general public, as it is written. These details specifically include the accomplishment/outcome. Prior to display on <u>www.nrtprogram.org</u>, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.7.2.1.1.4 Academic partners

[Copied]

• Academic Partnership 1 [Edit], [Delete]

[Add Academic Partner]

2.7.2.1.1.5 Government partners

[Copied]

• Government Partnership 1 [Edit], [Delete]

[Add Government Partner]

2.7.2.1.1.6 Corporate or industry partners

[Copied]

• Corporate Partnership 1 [Edit], [Delete]

[Add Corporate Partner]

2.7.2.1.1.7 Other partners

[Copied]

• Other Partnership 1 [Edit], [Delete]

[Add Other Partner]

2.7.2.2 Add / Edit Academic Partner

2.7.2.2.1.1 Institution/Organization name

Limit 200 characters [Copied]

2.7.2.2.1.2 Type of academic partner

Mark all that apply. Required [Copied]

- Ph.D.-granting institution
- Non-Ph.D.-granting institution
- Minority-serving institution
- □ K−12 institution
- ☐ Foreign-based institution

2.7.2.2.1.3 Activities

Mark all that apply. Required [Copied]

- **Facilities:** NRT trainees use the partner's facilities for project activities.
- Collaborative Research/Teaching: The partner's personnel work with NRT project staff on collaborative research/teaching.
- **Personnel Exchange:** NRT trainees and/or partner's personnel use each other's
- □ facilities or work at each other's sites on an ad hoc or as-needed basis.
- **Internships:** NRT trainees work in the partner's facilities specifically as interns.
- **Financial Arrangement:** the arrangement with the partner involves exchange of
- funds. {*Skip Ref A*}

2.7.2.2.1.4 Funding arrangement

{Skip if A is unchecked} Mark all that apply. Required [Copied]

Subaward to partner

NRT project provides subaward to the partner for the purposes of providing NRT traineeship stipends to trainees.

□ NRT project provides subaward to the partner for the purposes of providing services or support to NRT trainees.

Partner provides funding

- The partner provides funding to the NRT project specifically for NRT trainees in any way (e.g., internships, travel, training).
- The partner provides funding to the NRT project for research, curriculum, or other project activities but not directly for trainees.

Other

Other {*Skip Ref B*}

2.7.2.2.1.5 Please specify:

{Skip if B is unchecked}

2.7.2.3 Add / Edit Government Partner

2.7.2.3.1.1 Organization name

Limit 200 characters [Copied]

2.7.2.3.1.2 Type of government agency

Please select the one you feel is the best option. Required [Copied]

- U.S. Federal agency or department
- U.S. Federal laboratory or research facility
- **Foreign institution or foreign government/agency {Skip Ref A}**

2.7.2.3.1.3 If foreign, please indicate country:

[Copied] {Skip if A is unchecked} Searchable dropdown containing all countries

2.7.2.3.1.4 Activities

Mark all that apply. Required [Copied]

- **Facilities:** NRT trainees use the partner's facilities for project activities.
- Collaborative Research/Teaching: The partner's personnel work with NRT project staff on collaborative research/teaching.
- Personnel Exchange: NRT trainees and/or partner's personnel use each other's facilities or work at each other's sites on an ad hoc or as-needed basis.
- **Internships:** NRT trainees work in a partner's facilities specifically as interns.
- □ **Financial Arrangement:** the arrangement with the partner involves exchange of funds. *{Skip Ref B}*

2.7.2.3.1.5 Funding arrangement

{Skip if B is unchecked} Mark all that apply. Required [Copied]

Subaward to collaborator/partner

- □ NRT project provides subaward to partner for the purposes of providing NRT traineeship stipends to trainees.
- □ NRT project provides subaward to partner for the purposes of providing services or support to NRT trainees.

Partner Provides Funding

- The partner provides funding to the NRT project specifically for NRT trainees in any way (e.g., internships, travel, training).
- The partner provides funding to the NRT project for research, curriculum, or other project activities but not directly for trainees.

Other

Other {*Skip Ref C*}

2.7.2.3.1.6 If other, please specify:

{Skip if C is unchecked}

2.7.2.4 Add / Edit Corporate or Industrial Partner

2.7.2.4.1.1 Business name

[Copied] Limit 200 characters

2.7.2.4.1.2 Corporate headquarters

[Copied] Select one.

Required U.S.-based company

☐ Foreign-based company

2.7.2.4.1.3 Please select the sector that best describes the business of your corporate partner

Select one. Required [Copied]
Goods Producing
Agriculture, forestry, fishing and hunting
Construction
Manufacturing
Mining
Service-Providing
Educational services
Financial activity services
Health care and social assistance services
Information services
Leisure and hospitality services
Professional and business services
Public administration
Utilities
Wholesale trade

Retail trade
Transportation and warehousing
Federal government
State and local government
Other services

2.7.2.4.1.4 Activities

Mark all that apply. Required

- **Facilities:** NRT trainees use the partner's facilities for project activities.
- Collaborative Research/Teaching: The partner's personnel work with NRT project staff on collaborative research/teaching.
- Personnel Exchange: NRT trainees and/or partner's personnel use each other's facilities or work at each other's sites on an ad hoc or as-needed basis.
- **Internships:** NRT trainees work in a partner's facilities specifically as interns.
- □ **Financial Arrangement:** the arrangement with the partner involves exchange of funds. *{Skip Ref A}*

2.7.2.4.1.5 Funding arrangement

{Skip if A is unchecked} Mark all that apply. Required [Copied]

Subaward to partner

- NRT project provides subaward to the partner for the purposes of providing NRT traineeship stipends to trainees.
- □ NRT project provides subaward to the partner for the purposes of providing services or support to NRT trainees.

Partner Provides Funding

- The partner provides funding to the NRT project specifically for NRT trainees in any way (e.g., internships, travel, training).
- The partner provides funding to the NRT project for research, curriculum, or other project activities but not directly for trainees.

Other

Other {*Skip ref B*}

2.7.2.4.1.6 If other, please specify:

{Skip if B is unchecked}

2.7.2.5 Add / Edit Other Partner

2.7.2.5.1.1 Organization name

Limit 200 characters [Copied]

2.7.2.5.1.2 Activities

Mark all that apply. Required

- **Facilities:** NRT trainees use the partner's facilities for project activities.
- Collaborative Research/Teaching: The partner's personnel work with NRT project staff on collaborative research/teaching.

Personnel Exchange: NRT trainees and/or the partner's personnel use each other's facilities or work at each other's sites on an ad hoc or as-

- each other's facilities or work at each other's sites on an ad hoc or asneeded basis.
- □ Internships: NRT trainees work in the partner's facilities specifically as interns.
- □ **Financial Arrangement:** the arrangement with the partner involves exchange of funds. *{Skip Ref A}*

2.7.2.5.1.3 Funding arrangement

{Skip if A is unchecked} Mark all that apply. Required

[Copied]

Subaward to partner

- NRT project provides subaward to the partner for the purposes of providing NRT traineeship stipends to trainees.
- NRT project provides subaward to the partner for the purposes of providing services
or support to NRT trainees.

Partner Provides Funding

- The partner provides funding to the NRT project specifically for NRT trainees in any way (e.g., internships, travel, training).
- The partner provides funding to the NRT project for research, curriculum, or other project activities but not directly for trainees.

Other

Other {*Skip Ref B*}

2.7.2.5.1.4 If other, please specify:

{Skip if B is unchecked}

2.8 Accomplishments and Impacts

Note: For the final system, there will be short, generalized examples included.

2.8.1.1.1.1 Do you have any accomplishments and impacts to report?

Select one. Required {Skip Ref A} □ Yes □ No

{Skip if A is "No" Begin}

2.8.1.1.1.2 Please describe any accomplishments and impacts that :

- Demonstrate how your NRT project has been effective in attaining the interdisciplinary research goals you originally set out to achieve.
- Illustrate exceptional added value to the trainees' educational experiences.
- Involved either a single trainee or a group of trainees and was made possible through the participation of trainees in your NRT project.

If appropriate, include evidence from the evaluation that supports these outcomes.

While we do not limit the number of responses that you can enter, we expect to see 1-3 Accomplishments and Impacts in a typical reporting period.

Respondents can enter as many Accomplishments and Impacts as they wish.

- Accomplishment and Impact 1 [Edit], [Delete]
- Accomplishment and Impact 2 [Edit], [Delete]

[Add Accomplishment and Impact]

{Skip A End}

2.8.1.2 Add Accomplishment and Impact

2.8.1.2.1.1 Accomplishment and Impact

Required Limit 1000 characters

2.8.1.2.1.2 Aspects

Mark all that apply.

- This accomplishment / impact has been effective in attaining theinterdisciplinary research goals you originally set out to achieve
- This accomplishment / impact illustrates exceptional added value to
the trainees' educational experiences

This accomplishment / impact involved either a single trainee or a

group of trainees and was made possible through the participation of trainees in your NRT project

2.8.1.2.1.3 If this accomplishment / impact resulted from one or more international experiences, please indicate those that are applicable.

Mark all that apply.

List is generated from the list of international experiences in the current reporting period

- International experience 1
- International experience 2
- 2.8.1.2.1.4 I approve making this Accomplishment and Impact available for use on the <u>www.nrtprogram.org</u> website, viewable by the general public, as it is written. Prior to display on this website, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.9 **Products**

Only products published or completed during the reporting period should be included; planned or in-press products should be reported in a subsequent report, after publication. Enter all products into the reporting system; do not upload as a pdf file. Published journal or conference papers are to be deposited in the NSF Public Access Repository (NSF-PAR). Products should be included for both NRT funded and non-NRT funded trainees. All products resulting from the project should acknowledge federal support.

2.9.1 Journal or Juried Conference Paper

2.9.1.1.1.1 Did your NRT project publish any Journal or Juried Conference Papers?

Select one. Required {Skip Ref A} □ Yes □ No

{Skip if A is "No" Begin}

2.9.1.1.1.2 List of Journal or Juried Conference Papers

- Journal or Juried Conference Paper 1 [Edit], [Delete]
- Journal or Juried Conference Paper 2 [Edit], [Delete]
- Journal or Juried Conference Paper 3 [Edit], [Delete]

[Add Journal or Juried Conference Paper]

2.9.1.2 Add Journal or Juried Conference Paper

2.9.1.2.1.1 Publication status

Select one. Required [Copied] Published Accepted Awaiting publication Submitted Under review Other

2.9.1.2.1.2 Citation

Required Limit 1000 characters

2.9.1.2.1.3 Title

Required Limit 1000 characters

2.9.1.2.1.4 Abstract

Required Limit 1000 characters

2.9.1.2.1.5 Author(s)

2.9.1.2.1.6 Publication date

mm/dd/yyyy

Date Picker

2.9.1.2.1.7 NSF PAR ID

2.9.1.2.1.8 Journal Name

2.9.1.2.1.9 Volume

2.9.1.2.1.10 Issue

2.9.1.2.1.11 Page range or eLocation ID

2.9.1.2.1.12 ISSN

2.9.1.2.1.13 Publisher

2.9.2 Book

2.9.2.1.1.1 Did your NRT project publish any Books?

Select one. Required {Skip Ref A}

🛛 Yes 🗍 No

{Skip if A is "No" Begin}

2.9.2.1.1.2 List of Books

- Book 1 [Edit], [Delete]
- Book 2 [Edit], [Delete]
- Book 3 [Edit], [Delete]

[Add Book]

2.9.2.2 Add Book

2.9.2.2.1.1 Publication status

Select one. Required Published Accepted

Awaiting publication

Submitted

Under review

Other

2.9.2.2.1.2 Author(s)

Required Limit 1000 characters

2.9.2.2.1.3 Title

Required Limit 1000 characters

2.9.2.2.1.4 Book Edition

2.9.2.2.1.5 Book Volume

2.9.2.2.1.6 Book Publisher

2.9.2.2.1.7 Publication Location

2.9.2.2.1.8 Year

<u>уууу</u> Date Picker

2.9.2.2.1.9 Publication Identifier

2.9.2.2.1.10	Acknowledgement of Federal Support
Select one. Required	
🛛 Yes 🗌	No
2.9.2.2.1.11	Peer Reviewed
Select one.	
🛛 Yes 🗌	No

2.9.3 Book Chapter

2.9.3.1.1.1 Did your NRT project publish any Book Chapters?

Select one. Required {Skip Ref A}] Yes]

{Skip if A is "No" Begin}

2.9.3.1.1.2 List of Book Chapters

No

- Book Chapter 1 [Edit], [Delete]
- Book Chapter 2 [Edit], [Delete]
- Book Chapter 3 [Edit], [Delete]

[Add Book Chapter]

2.9.3.2 Add Book Chapter

2.9.3.2.1.1 Publication status

Select one. Required Published Accepted Awaiting publication Submitted

Under review

Other

2.9.3.2.1.2 Chapter Title

Required Limit 1000 characters

2.9.3.2.1.3 First Page Number or eLocation ID

Limit 1000 characters

2.9.3.2.1.4 Author(s)

Required Limit 1000 characters

2.9.3.2.1.5 Book Title

2.9.3.2.1.6 Book Edition

2.9.3.2.1.7 Book Volume

2.9.3.2.1.8 Book Publisher

2.9.3.2.1.9 Publication Location

2.9.3.2.1.10 Year

<u>уууу</u> Date Picker

2.9.3.2.1.11 Publication Identifier

2.9.3.2.1.12 Publication Identifier Type

Select one.	
DOI	
ISBN	
ISSN	
Other	

2.9.3.2.1.13 Acknowledgement of Federal Support

Select one. Required

🗌 Yes 🗌 No

2.9.3.2.1.14 Peer Reviewed

Select one.

🗌 Yes 🗌 No

2.9.4 Invention

2.9.4.1.1.1 Did your NRT project create any Inventions?

Select one. Required {Skip Ref A}

🛛 Yes 🗍 No

{Skip if A is "No" Begin}

2.9.4.1.1.2 List of Inventions

- Invention 1 [Edit], [Delete]
- Invention 2 [Edit], [Delete]
- Invention 3 [Edit], [Delete]

[Add Invention]

2.9.4.2 Add Invention

2.9.4.2.1.1 Invention Title

Required

2.9.4.2.1.2 Invention Description

Required Limit 1000 characters

2.9.4.2.1.3 Inventors

2.9.5 License

2.9.5.1.1.1 Did your NRT project develop any Licenses?

Select one. Required {Skip Ref A}

🛛 Yes 🗍 No

{Skip if A is "No" Begin}

2.9.5.1.1.2 List of Licenses

- License 1 [Edit], [Delete]
- License 2 [Edit], [Delete]
- License 3 [Edit], [Delete]

[Add License]

2.9.5.2 Add License

2.9.5.2.1.1 License Status

Select one. Required	
Licensed	
Pending	
None	

2.9.5.2.1.2 License Title

Required

2.9.5.2.1.3 Application Date

Required	
mm/dd/yyyy	
Date Picker	

2.9.5.2.1.4 Date Issued

mm/dd/yyyy Date Picker

2.9.5.2.1.5 License Assignees

Limit 1000 characters

2.9.6 Other Conference Presentation / Paper

2.9.6.1.1.1	Did y	our NRT	project	complete or	publish any	Other	Conferer	nce Prese	entations /
	Papel	rs?							
Select one. Required {Skip Ref A	}								
🛛 Yes		No							
{Skip if A is	"No"	Begin}							

2.9.6.1.1.2 List of Other Conference Presentations / Papers

- Other Conference Presentation / Paper 1 [Edit], [Delete]
- Other Conference Presentation / Paper 2 [Edit], [Delete]
- Other Conference Presentation / Paper 3 [Edit], [Delete]

[Add Other Conference Presentation / Paper]

2.9.6.2 Add Other Conference Presentation/Paper

2.9.6.2.1.1 Publication status

Select one. Required	_
Published	
Accepted	
Awaiting publication	
Submitted	
Under review	
Other	

2.9.6.2.1.2 Paper Title

Required Limit 1000 characters

2.9.6.2.1.3 Conference Name

Required Limit 1000 characters

2.9.6.2.1.4 Conference Location

2.9.6.2.1.5 Year

yyyy Date Picker

2.9.6.2.1.6 Author(s)

2.9.6.2.1.7 Acknowledgement of Federal Support

Select one. Required

🛛 Yes 🗌 No

2.9.7 Other Product

2.9.7.1.1.1 Did your NRT project develop any Other Products?

Select one. Required {Skip Ref A} □ Yes □ No

{Skip if A is "No" Begin}

2.9.7.1.1.2 List of Other Products

- Other Product 1 [Edit], [Delete]
- Other Product 2 [Edit], [Delete]
- Other Product 3 [Edit], [Delete]

[Add Other Product]

2.9.7.2 Add Other Product

2.9.7.2.1.1 Product Type

Select one. Required Databases Physical Collections Audio or Visual Products Software or Netware Models Education aids or Curricula Instruments or Equipment Data and Research Materials (e.g. Cell Lines, DNA Probes, Animal Models) Evaluation Instruments Survey Instruments Protocols Other {Skip Ref A}

2.9.7.2.1.2 If Other, please specify:

{*Skip if A unchecked*}

2.9.7.2.1.3 Describe the product and how it is being shared:

2.9.8 Other Publication

2.9.8.1.1.1 Did your NRT project publish any Other Publications?

Select one. Required {Skip Ref A} □ Yes □ No

{Skip if A is "No" Begin}

2.9.8.1.1.2 List of Other Publication

- Other Publication 1 [Edit], [Delete]
- Other Publication 2 [Edit], [Delete]
- Other Publication 3 [Edit], [Delete]

[Add Other Publication]

2.9.8.2 Add Other Publication

2.9.8.2.1.1 Publication status

Select one. Required Published Accepted Awaiting publication Submitted

Under review

Other

2.9.8.2.1.2 Title

Required Limit 1000 <u>characters</u>

2.9.8.2.1.3 Description

Required Limit 1000 characters

2.9.8.2.1.4 Year

уууу Date Picker

2.9.8.2.1.5 Author(s)

2.9.8.2.1.6 Acknowledgement of Federal Support

Select one. Required

🛛 Yes 🗌 No

2.9.9 Patent Application

2.9.9.1.1.1 Did your NRT project develop any Patent Applications?

Select one. Required {Skip Ref A} Yes No

{Skip if A is "No" Begin}

2.9.9.1.1.2 List of Patent Applications

- Patent Application 1 [Edit], [Delete]
- Patent Application 2 [Edit], [Delete]
- Patent Application 3 [Edit], [Delete]

[Add Patent Application]

2.9.9.2 Add Patent

2.9.9.2.1.1 Publication status

Select one. Required	
Submitted	
Pending	
Granted	

2.9.9.2.1.2 Patent Abstract

Required Limit 1000 characters

2.9.9.2.1.3 Patent Title

Required

2.9.9.2.1.4 Patent Number

2.9.9.2.1.5 Country

Select one. Required Searchable list of all countries

2.9.9.2.1.6 Application Date

Required		
mm/dd/yyyy		
Date Picker		

2.9.9.2.1.7 Date Issued

mm/dd/yyyy

Date Picker

2.9.10 Technology and Technique

2.9.10.1.1.1 Did your NRT project develop any Technologies or Techniques?

Select one. Required {Skip Ref A}

🛛 Yes 🗍 No

{Skip if A is "No" Begin}

2.9.10.1.1.2 List of Technologies or Techniques

- Technology and Technique 1 [Edit], [Delete]
- Technology and Technique 2 [Edit], [Delete]
- Technology and Technique 3 [Edit], [Delete]

[Add Technology and Technique]

2.9.10.2 Add Technology and Technique

2.9.10.2.1.1 Description

2.9.11 Thesis / Dissertation

2.9.11.1.1.1 Did your NRT project trainees complete any Theses / Dissertations?

Select one. Required {<mark>Skip Ref A</mark>}

🛛 Yes 🗍 No

{Skip if A is "No" Begin}

2.9.11.1.1.2 List of Theses / Dissertations

- Thesis / Dissertation 1 [Edit], [Delete]
- Thesis / Dissertation 2 [Edit], [Delete]
- Thesis / Dissertation 3 [Edit], [Delete]

[Add Thesis / Dissertation]

2.9.11.2 Add Thesis/Dissertation

2.9.11.2.1.1 Title

Required Limit 1000 characters

2.9.11.2.1.2 Author(s)

Required Limit 1000 characters

2.9.11.2.1.3 Institution

Required

2.9.11.2.1.4 Year

Required		
<u> </u>		
Date Picker		

2.9.11.2.1.5 Acknowledgement of Federal Support

Select one. Required

🗌 Yes 🗌 No

2.9.12 Website or Other Internet Site

2.9.12.1.1.1 Did your NRT project create any Websites or Other Internet Sites?

Select one. Required {<mark>Skip Ref A</mark>}

🛛 Yes 🗍 No

{Skip if A is "No" Begin}

2.9.12.1.1.2 List of Websites or Other Internet Sites

- Website or Other Internet Site 1 [Edit], [Delete]
- Website or Other Internet Site 2 [Edit], [Delete]
- Website or Other Internet Site 3 [Edit], [Delete]

[Add Website or Other Internet Site]

2.9.12.2 Add Website

2.9.12.2.1.1 Title

2.9.12.2.1.2 URL

Required

2.9.12.2.1.3 Description of the website

Limit 1000 characters

2.10 Professional Skill Development Activities

2.10.1.1.1.1 Do you have any professional skill development activities to report?

Select one. Required {Skip Ref A}] Yes] No

{Skip if A is "No" Begin}

- 2.10.1.1.2 Please describe the components of the adopted traineeship model that have been developed and implemented for broad, transferrable professional skill development (not content area courses). If both M.S. and Ph.D. students are involved, please describe the shared and unique professional development and training elements for each group. For training in communications. Describe the rubrics/instruments for measuring proficiency and progress in communication skills, as well as opportunities for trainees to receive regular, structured feedback on their communication skills.
 - Activity 1 [Edit], [Delete]
 - Activity 2 [Edit], [Delete]

[Add Professional Skill Development Activity]

{Skip A End}

2.10.2 Add Professional Skill Development Activity

2.10.2.1.1.1 Activity description:

Limit 2000 characters

2.10.2.1.1.2 What was the target audience of this activity?

Mark all that apply. Required

- □ Trainees
- ☐ Faculty

2.10.2.1.1.3 Was this activity required or optional for NRT faculty?

Select one. Required

□ Required □ Optional

2.10.2.1.1.4 Was this activity required or optional for NRT trainees?

Select one. Required

RequiredOptional

2.10.2.1.1.5 What was the focus of this professional development activity?

Mark all that apply. Required

- Trainee preparation in interdisciplinary/convergence research
- Trainee preparation in professional skills
- Trainee preparation for STEM careers
- Faculty Professional Development
- Other {*Skip Ref A*}

2.10.2.1.1.6 If Other, please specify:

{Skip if A unchecked} Limit 5 items Multi Add 2.10.2.1.1.7 What specific skills were addressed in this activity?

Mark all that apply. Required

- Deroject Management
- Leadership
- Teaching
- Entrepreneurship
- Conflict resolution
- Mentorship
- Communication
- Teamwork
- Ethics
- Other {*Skip Ref B*}

2.10.2.1.1.8 If Other, please specify:

Multi Add		
Limit 5 items		
{Skip if B unchecked}		

2.10.2.1.1.9 Describe method of delivery (e.g., single day workshop, virtual or in person, monthly seminar etc.):

Limit 100 characters

2.10.2.1.1.10 Describe length and frequency of activity (e.g., weekly course Fall 2021 for total of 12 hours):

Limit 100 characters

2.10.2.1.1.11 What stakeholders were served by this activity?

Mark all that apply. Required

- NRT Funded Trainees {Skip Ref C}
- Non-NRT Funded Trainees {*Skip Ref D*}

- Non-trainee graduate students *{Skip Ref E}*
- Faculty {Skip Ref F}
- Other {*Skip Ref G*}

2.10.2.1.1.12 If Other, please specify:

{Skip if G unchecked} Limit 5 items

Multi Add

2.10.2.1.1.13 Approximate total number of participants:

Required Integer

2.10.2.1.1.14 Number of NRT-funded trainees:

{Skip if C unchecked} Positive Integer

2.10.2.1.1.15 Number of non-NRT funded trainees:

{Skip if D unchecked} Positive Integer

2.10.2.1.1.16 Number of non-trainee graduate students:

{Skip if E unchecked} Positive Integer

2.10.2.1.1.17 Number of faculty:

{Skip if F unchecked} Positive Integer

2.11 Trainee Preparation

2.11.1 Career Sectors

2.11.1.1.1 What career sectors were trainees exposed to during their training?

Mark all that apply. Required

- Government
- □ Industry/Business
- Academia/Research
- □ Academia/Teaching
- Other Education
- Other {*Skip Ref A*}

2.11.1.1.1.2 If other, please specify:

{Skip if A unchecked} Limit 5 items

Multi Add

2.11.2 Trainee Preparation in Interdisciplinary/Convergence Research

2.11.2.1.1.1 Did you provide Trainees with preparation in Interdisciplinary / Convergence Research?

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

{Skip if A is "No" - Begin}

2.11.2.1.1.2 Mark the following components of interdisciplinary/convergence research preparation that apply to the <u>majority</u> of NRT trainees involved in your project.

Mark all that apply.

Required

- Trainees undertook formal coursework/training in research methods, practices,
- and/or instrumentation in their primary discipline equivalent to traditional graduate students.
- Trainees had practical (i.e., hands-on laboratory and/or field experience) in conducting research across the breadth of disciplines in the NRT program.
- Trainees undertook formal coursework/training across the breadth of disciplines encompassed by the NRT project.

Trainees undertook formal coursework/training in both the ethical and responsible

- Conduct of research and ethical conduct related to the themes encompassed by your NRT project.
- Other preparation to conduct high-quality research (e.g., short course). {*Skip Ref B*}

2.11.2.1.1.3 If other preparation, please specify:

{Skip if B unchecked}	
Limit 5 items	
Multi Add	

2.11.2.1.1.4 Briefly describe the promising practices for preparing NRT trainees to conduct collaborative research that transcends traditional disciplinary boundaries. If both M.S. and Ph.D. students are involved, please describe the shared and unique elements for each group. While we do not limit the number of responses that you can enter, we expect to see 1-3 promising practices in a typical reporting period.

At least one response is required.

Respondents can enter as many Practices and Measures as they wish.

• Practice and Measure 1 [Edit], [Delete]

• Practice and Measure 2 [Edit], [Delete]

[Add Practice and Measure]

{End Skip A}

2.11.2.2 Add Practice and Measure

2.11.2.2.1.1 Practice

Required Limit 1000 characters

2.11.2.2.1.2 Measures

Mark all that apply. Required

- **Formal Evaluation**
- □ Informal Surveys
- Group Feedback
- **Quantitative Measure**
- Other {*Skip Ref A*}

2.11.2.2.1.3 If other measure, please specify:

{Skip if A unchecked} Limit 100 characters

 2.11.2.2.1.4 I approve making the First Trainee Preparation in Interdisciplinary/Convergence Research Practice and Measure available for use on <u>www.nrtprogram.org</u>, viewable by the general public, as it is written. Prior to display on <u>www.nrtprogram.org</u>, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.11.3 Trainee Preparation in Professional Skills

2.11.3.1.1.1 Did you provide Trainees with preparation in Professional Skills?

Select one. Required <mark>{Skip Ref A}</mark>

🗌 Yes 🗌 No

{Skip if A is "No" - Begin}

2.11.3.1.1.2 Mark the components of professional skills development that apply to the <u>majority</u> of NRT trainees involved in your project.

Mark all that apply. Required

- Trainees undertook coursework/training that included regular faculty critique of and feedback on professional writing.
- Trainees authored, submitted, or published research papers in refereed journals.
- Trainees undertook coursework/training (e.g., brown bags, seminars) that included regular critique of and feedback on professional speaking/presentation skills.
- Trainees made presentations at academic/scientific professional conferences or meetings.
- Trainees presented results from their NRT project to professional, nonacademic audiences (e.g., industry, government).
- Trainees undertook coursework/training to develop media-based or information technology-based communication skills.
- Trainees produced multimedia materials, Web sites, or other cyber-enabled tools to communicate the results of their NRT activities to external audiences.
- Trainees used multimedia materials, Web sites, or other cyber-enabled tools as part of their interdisciplinary scientific training and collaboration.
- Trainees received training in team building and project management skills.
- Trainees received training in effective time and task management.
- Trainees participated as members of teams engaged in joint research, education, and/or outreach efforts.

- Trainees led teams engaged in research, education, and/or outreach efforts.
- Other preparation in professional skills development. *[Skip Ref B]*

2.11.3.1.1.3 If Other, please specify:

{Skip if B unchecked}	
Limit 5 items	
Multi Add	

2.11.3.1.1.4 Briefly describe the formal training activities (e.g., coursework, workshop, professional speaker) for preparing NRT trainees to effectively communicate scientific endeavors to general audiences. Describe the rubrics/instruments for measuring proficiency and progress in communication skills, as well as opportunities for trainees to receive regular, structured feedback on their communication skills. If both M.S. and Ph.D. students are involved, please describe the shared and unique professional development and training elements for each group. While we do not limit the number of responses that you can enter, we expect to see 1-3 formal training activities in a typical reporting period.

At least one response is required.

Respondents can enter as many Training Activities as they wish.

- Training Activity 1 [Edit], [Delete]
- Training Activity 2 [Edit], [Delete]

[Add Training Activity]

{End Skip A}

2.11.3.2 Add Training Activity

2.11.3.2.1.1 Activity

One Response Required Limit 1000 characters

2.11.3.2.1.2 I approve making the First Trainee Preparation in Professional Skills Activity available for use on <u>www.nrtprogram.org</u>, viewable by the general public, as it is written. Prior to display on <u>www.nrtprogram.org</u>, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.11.4 Trainee Preparation for STEM Careers

2.11.4.1.1.1 Did you provide Trainees with preparation for STEM Careers?

Select one. Required {<mark>Skip Ref A</mark>}

🗌 Yes 🗌 No

{Skip if A is "No" - Begin}

2.11.4.1.1.2 Mark the components that apply to the <u>majority</u> of NRT trainees involved in your project.

Mark all that apply.

Required

- Trainees received training or instruction (e.g., courses, workshops) in effective teaching practices and student mentoring.
- Trainees developed and presented course and/or curriculum materials.
- Trainees served as mentors to others (e.g., graduate students, undergraduates, laboratory technicians).
- Trainees received training/mentoring in grant proposal preparation.
- Trainees authored/coauthored and submitted grant proposals.
- Trainees received training/instruction on the interaction between academic research and industrial technical requirements.
- Trainees received training/instruction for applying their research to address public policy concerns or issues.
- Trainees had internships (off-campus, research, educational, and/or work experiences) in nonacademic settings (e.g., industry, government).
 - Trainees had professional interactions other than internships with nonacademic
- employers (e.g., industry, government) in order to learn about career opportunities and requirements.
- \Box Trainees communicated, worked, or collaborated with scientists of other nationalities.
- Other preparation for careers in academia. *[Skip Ref B]*

2.11.4.1.1.3 If Other, please specify:

{Skip if B unchecked} Limit 5 items

Multi Add

Other preparation for nonacademic careers (e.g., industry, government) {*Skip Ref C*}

2.11.4.1.1.4 If Other, please specify:

{Skip if C unchecked} Limit 5 items Multi Add

{End Skip A}

2.12 Strategies for Broadening Participation

One purpose of NRT is to create a program strategy and a plan for recruiting, mentoring, retaining, and graduating U.S. graduate students that includes efforts aimed at members of groups underrepresented in science and engineering. With these goals in mind, please respond to the following questions.

2.12.1.1.1.1 Do you have an overall active plan with a specific set of goals and timelines for the recruitment and retention of trainees, including specifics for broadening participation of groups underrepresented in science and engineering?

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

2.12.1.1.1.2 If no, please explain:

{Skip if A is "Yes"} Limit 1000 characters

2.12.2 Recruitment

Please describe your activities to recruit U.S. graduate students, including efforts 2.12.2.1.1.1 aimed at members of groups underrepresented in science and engineering. Please support the discussion in this section with aggregate demographic data, placing your current program demographics within your institutional and participating unit contexts and projecting forward to your stated target levels. This should be a narrative-style response; no tables or charts are needed or expected.

Required *Limit 1000 characters*

2.12.2.1.1.2 Which of the following practices are you using to recruit trainees in general?

Mark all that apply. Required

- Relationships with NSF programs that can provide an undergraduate pool of Π potential NRT trainees (e.g., REUs).
- Π Relationships with faculty and programs at other academic institutions.
- New opportunities for research/education/training developed by faculty. Π
- Use of recruiting resources on your campus (e.g., career service office, graduate studies office).
- Π Collaboration with other NRT projects on recruitment.
- Use of professional meetings, conferences, and associations to communicate with, reach out to, and market to potential NRT trainees.

Interaction with professional associations, organizations, or committees serving underrepresented communities (e.g., National Action Council for Minorities in

- Engineering, Society of Women Engineers, committees in professional societies focused on women).
- Bridge programs for entering graduate students. Π
- Π Other {Skip ref A}

2.12.2.1.1.3 If Other, please specify:

{*Skip if A unchecked*} Limit 5 items

Multi Add

2.12.2.1.1.4 Were any recruiting practices (including those described above) focused on recruiting members of the following groups?

Mark all that apply. Required

- [] Members of racial/ethnic minorities <u>underrepresented in STEM {Skip ref B}</u>
- □ Women {*Skip ref C*}
- Individuals with disabilities {*Skip ref D*}
- □ Veterans {*Skip ref E*}

{Skip if B unchecked}

2.12.2.1.1.5 Which of the following practices are you using to recruit trainees from members of racial/ethnic minorities who are <u>underrepresented in STEM</u>?

Mark all that apply.

Required

Relationships with NSF programs that specifically focus on broadening participation

- (e.g., Louis Stokes Alliances for Minority Participation, Alliances for Graduate Education and the Professoriate, Tribal Colleges and Universities Program).
- Image: Mentoring or advising arrangements that pair trainees with underrepresented
minority faculty or graduate students on campus.

Relationships with faculty and programs at minority-serving academic institutions

- (e.g., historically black colleges and universities, Hispanic-serving institutions, or tribal colleges).
- Other {*Skip ref F*}

2.12.2.1.1.6 If Other, please specify:

Multi Add	
Limit 5 items	
{Skip if F unchecked}	

{End Skip B}

{Skip if C unchecked}

2.12.2.1.1.7 Which of the following practices are you using to recruit trainees who are women?

Mark all that apply.

Required

Relationships with NSF programs that specifically focus on broadening participation

- of women in STEM (e.g., ADVANCE: Organizational Change for Gender Equity in STEM Academic Professions).
- Use of resources on your campus (e.g., academic advancement programs, offices for campus diversity, or women's student groups).
- Interaction with professional associations, organizations, or committees servingwomen (e.g., Society of Women Engineers, committees in professional societies
- focused on women). Mentoring or advising arrangements that pair trainees with women fac
- A Mentoring or advising arrangements that pair trainees with women faculty or graduate students on campus.
- Other {*Skip ref G*}

2.12.2.1.1.8 If Other, please specify:

{<mark>Skip if G unchecked</mark>} Limit 5 items

Multi Add

{End Skip C}

{Skip if D unchecked}

2.12.2.1.1.9 Which of the following practices are you using to recruit trainees with <u>disabilities</u>?

Mark all that apply.

Required

Relationships with NSF programs that specifically focus on broadening participation of individuals with disabilities working in STEM (e.g., Persons with Disabilities –

- STEM Engagement and Access, Facilitation Awards for Scientists and Engineers with Disabilities).
- Use of resources on your campus (e.g., academic advancement programs, offices for campus diversity, or disabled student groups).
- Interaction with professional associations, organizations, or committees serving individuals with disabilities (e.g., The Foundation for Science and Disability,
- committees in professional societies focused on individuals with disabilities).
- A Mentoring or advising arrangements that pair trainees with disabled faculty or graduate students on campus.
- Ensure promotional materials, including websites, are available in accessible formats
- $^{
 m ar{}}$ and include information on how individuals can request accommodations
- Other {*Skip ref H*}

2.12.2.1.1.10 If Other, please specify:

{Skip if H unchecked} Limit 5 items

Multi Add

{End Skip D}

{Skip if E unchecked}

2.12.2.1.1.11 Which of the following practices are you using to recruit <u>veterans</u>?

Mark all that apply.

Required

- Relationships with NSF programs that specifically focus on broadening participation
of veterans in STEM (e.g., Veterans Research Supplement).
- Use of resources on your campus (e.g., academic advancement programs, offices for campus diversity, or veteran student groups).
- Interaction with professional associations, organizations, or committees serving veterans (e.g., committees in professional societies focused on veterans).
- A Mentoring or advising arrangements that pair trainees with faculty or graduate students on campus that are veterans.
- Other {*Skip ref I*}

2.12.2.1.1.12 If Other, please specify:

{Skip if I unchecked} Limit 5 items Multi Add

{End Skip E}

2.12.2.1.1.13 Do you have any promising strategies and/or results for recruiting qualified trainees to your NRT project?

Select one. Required {<mark>Skip Ref A</mark>}

🗌 Yes 🗌 No

{Skip if A is No - Begin}

2.12.2.1.1.14 Please describe promising strategies and results for <u>recruiting</u> qualified trainees to your NRT project, including efforts aimed at members of groups underrepresented in science and engineering. This should be a narrative-style response; no tables or charts are needed or expected. While we do not limit the number of responses you can enter, we expect to see 1-3 strategies and their results in a typical reporting period.

At least one response is required.

Respondents can enter as many Recruitment Strategies and Results as they wish.

- Recruitment strategy and result 1 [Edit], [Delete]
- Recruitment strategy and result 2 [Edit], [Delete]

[Add Recruitment Strategy and Result]

{Skip A End}

2.12.2.2 Add Recruitment Strategy and Result

2.12.2.2.1.1 Strategy:

Required Limit 1000 characters

2.12.2.2.1.2 Result:

Required Limit 1000 characters

2.12.2.1.3 I approve making this Strategy and Result for Recruitment in broadening Participation Practices available for use on <u>www.nrtprogram.org</u>, viewable by the general public, as it is written. Prior to display on <u>www.nrtprogram.org</u>, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.12.3 Retention

2.12.3.1.1.1 Please describe your activities to <u>retain</u> U.S. graduate students, including efforts aimed at members of groups underrepresented in science and engineering. Please support the discussion in this section with aggregate demographic data, placing your current program demographics within your institutional and participating unit contexts and projecting forward to your stated target levels. This should be a narrative-style response; no tables or charts are needed or expected.

Required Limit 1000 characters

2.12.3.1.1.2 Do you have any promising strategies and/or results for retaining qualified trainees in your NRT project?

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

{Skip if A is No - Begin}

2.12.3.1.1.3 Please describe the promising strategies and results for <u>retaining</u> qualified trainees in your NRT project, including efforts aimed at members of groups underrepresented in science and engineering. This should be a narrative-style response, no tables or charts are needed or expected. While we do not limit the number of responses you can enter, we expect to see 1-3 strategies and their results in a typical reporting period.

Respondents can enter as many Retention Strategies and Results as they wish.

- Retention Strategy and Result 1 [Edit], [Delete]
- Retention Strategy and Result 2 [Edit], [Delete]

[Add Retention Strategy and Result]

{Skip A End}

2.12.3.2 Add Retention Strategy and Result

2.12.3.2.1.1 Strategy:

Required Limit 1000 characters

2.12.3.2.1.2 Result:

Required Limit 1000 characters

2.12.3.2.1.3 I approve making this Strategy and Result for Retention in broadening Participation Practices available for use on <u>www.nrtprogram.org</u>, viewable by the general public, as it is written. Prior to display on <u>www.nrtprogram.org</u>, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.13 Outreach Activities

Please report any outreach activities involving your NRT project. Outreach activities include your NRT project, NRT faculty, and/or NRT trainees being featured in the media (e.g., TV, radio, magazine articles) or talks, presentations, or workshops given to school groups, civic groups, non-scientifically-based professional groups, members of the government, or the general public.

2.13.1.1.1.1 Do you have any Outreach Activities to report?

Sel	ect one.	
Rec	quired	
{Sk	ip Ref A}	
	Yes	No

2.13.1.1.1.2 List of Outreach Activities

{Skip if A is "No"}

Respondents can enter as many Outreach Activities as they wish.

- Outreach Activity 1 [Edit], [Delete]
- Outreach Activity 2 [Edit], [Delete]

[Add Outreach Activity]

2.13.1.2 Add Outreach Activity

2.13.1.2.1.1 Please provide a short title for this activity.

Required Limit 50 characters

2.13.1.2.1.2 Please provide the name of the media outlet or organization for which outreach was done.

Required Limit 50 characters

2.13.1.2.1.3 Date of the activity

Required		
(mm/үүүү)		
Date picker		

2.13.1.2.1.4 Type of activity

Required	
Auseum	
Media	
K-12	
Jndergraduate	
Government	
nformal Science	
Other {Skip ref A}	

2.13.1.2.1.5 If Other, please specify:

{Skip if A is not Other}		
Limit 5 items		
Multi Add		

2.13.1.2.1.6 Briefly describe this activity.

Required Limit 1000 characters

2.14 Project Evaluation and Advisory Committee

2.14.1 Advisory Committee

2.14.1.1.1.1 Describe the advisory committee's methods and activities.

Required Limit 1000 characters

2.14.1.1.2 Describe the interactions with the advisory committee and how the advisory activities and associated outcomes/findings have informed the project. This section should be completed in collaboration with the evaluator.

Required Limit 1000 characters

2.14.1.1.1.3 Upload Supporting Document, e.g. Advisory Committee Report (PDF):

[Upl

[Upload]

2.14.2 Project Evaluation

2.14.2.1.1.1 Describe the evaluation's methods and activities.

Required Limit 1000 characters

2.14.2.1.1.2 Describe the evaluation findings and how the evaluation and associated outcomes/findings have informed the project. This section should be completed in collaboration with the evaluator.

Required

Limit 1000 characters

2.14.2.1.1.3 What do you plan to do during the <u>next</u> reporting period? Report evaluator, advisory board, and any other relevant recommendations that came out of your project during the <u>current reporting period</u> and how you plan to use that information to improve the training model and/or project. This section should be completed in collaboration with the evaluator.

Required Limit 1000 characters

2.14.2.1.1.4 Have the results been disseminated?

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

2.14.2.1.1.5 Please describe how the project results, including the outcomes of any training, have been disseminated.

Limit 1000 characters {Skip if A is "No"}

2.14.2.1.1.6	Upload Supporting Document, e.g. Full Evaluation or Executive Summary (PDF):		
		[Upload]	

2.15 Institutional Impacts

2.15.1.1.1.1 Please indicate any changes and/or impacts that have occurred in your institution as a result of your NRT project.

Mark all that apply. Required

The institution(s) involved in your NRT project has/have been successful in obtaining large-scale Federal grants (e.g., Science and Technology

- Centers, Engineering Research Centers, Materials Research Science and Engineering Centers).
- □ Interdisciplinary/multidisciplinary courses have been developed for NRT trainees and associates.
- □ Interdisciplinary/multidisciplinary courses are being delivered to NRT trainees and associates.
- □ Interdisciplinary/multidisciplinary courses that have been developed for NRT are being delivered to non-NRT students.
- Interdisciplinary/multidisciplinary courses that have been developed for
NRT have been institutionalized in the course offerings on the NRT campus
- □ New certificate or degree programs have been developed and are available on the NRT campus(es).
- Department curriculum or policy changes took place to emphasize or
 require interdisciplinary/multidisciplinary preparation for all graduate students.

Institutional changes that support and encourage team

- multidisciplinary/interdisciplinary course development and teaching have occurred.
- □ Institutional changes that support and encourage team-based graduate student learning and assessment have occurred.
- □ Institutional changes that support and encourage graduate students to gain laboratory and research experiences across disciplines have occurred.
- Institutional changes incorporating improved recruitment and retentionpolicies and practices for underrepresented groups and women based on

NRT have occurred.

Other institutional actions/work. {*Skip Ref A*}

2.15.1.1.1.2 If Other, please specify:

{Skip if A is unchecked} Limit 5 items Multi Add

2.15.1.1.1.3 Please describe a demonstrable change (if any) in institutional practice or policy that has occurred due to NRT. Include any improvements to recruitment and retention policies and practices for underrepresented groups and women.

Required

Limit 1000 characters

2.15.1.1.4 [] I approve making the contents of the text box above on demonstrable institutional changes available for use on <u>www.nrtprogram.org</u>, viewable by the general public, as it is written. Prior to display on <u>www.nrtprogram.org</u>, materials will undergo an internal review process. Staff may reach out to PIs if there are any concerns or changes required.

2.16 Changes/Problems

2.16.1.1.1.1 Did your NRT project encounter any changes or problems?

Select one. Required {Skip Ref A}

🗌 Yes 🗌 No

{Skip A Begin}

2.16.1.1.2 Please identify and describe the key changes/problems (e.g., programmatic, institutional) you have encountered in the process of implementing your NRT project, including barriers to institutionalizing effective training elements. For each change/problem identified, briefly describe how your project has responded.

At least one response is required.

Respondents can enter as many Changes/Problems as they wish.

- Change/Problem 1 [Edit], [Delete]
- Change/Problem 2 [Edit], [Delete]

[Add Change/Problem]

{Skip A End}

2.16.1.2 Add Change/Problem

2.16.1.2.1.1 Change/Problem

Required Limit 1000 characters

2.16.1.2.1.2 Response

Required Limit 1000 characters

2.17 Final Submission to NSF

Final Data are ready to submit.

This section provides the link for PIs to submit their completed surveys. Final submission is possible once the required sections for your award are completed and trainees have completed their portion of the NRT survey.

You have chosen to notify NSF that your data are final. Are you sure you are ready to finalize the data for the <u>current reporting period</u>? After submission, the NRT Data Reporting System will revert to a **read-only** version of your data. You will be able to view your final results but not update them.

To submit your final data, click on **Send Final Submission** below. Click on **Cancel** to return to the Main Menu without submitting your data. Note: If you click **Cancel**, your data will be saved, and you will still be able to report or revise your data. If you are confident that you have finished reporting your data, respond to the burden question below and click **Send Final Submission**.

2.17.1.1.1 Approximately how many person hours were required to prepare data and complete the NRT online survey?

Required

I certify that all of the information that I entered in the annual report is correct to the best of my knowledge.

[Send Final Submission] [Cancel]