# Guidelines for MRSEC Annual Progress Reports and Continuation Request

NSF has transitioned to a new reporting system through research.gov, which requires NSF to comply with guidance about report content and specifies what information can be collected by the agency. This information is specified in the Research Performance Progress Report (RPPR) resulted from an initiative of the Research Business Models (RBM) Subcommittee of the Committee on Science (CoS), a committee of the National Science and Technology Council (NSTC).

Based on that guidance, MRSEC reports will remain identical in **format** in the PDF files submitted to NSF. <u>Please remember that all diversity information collected must be based entirely on voluntary self-reporting and that all budgetary information in the report must be attested to by the university AOR (Authorized Organizational Representative, often the <u>Sponsored Research Office)</u>.</u>

To implement item 1, we are establishing a web-based interface on MRSEC.ORG for individuals to voluntarily self-report Demographic data. <u>Do not collect Demographic information from any other source or by any others means.</u>

The **Annual Progress Report** contains specific information including, but not limited to, the following:

- a. A summary description of the Center; description of scientific and engineering accomplishments and plans; progress and plans in the area of education and human resources; progress and plans in outreach and knowledge transfer to industry and other sectors and groups; shared experimental facilities; Center administration and management; and a data base of indicators of activity and progress, as required by the Government Performance and Results Act (GPRA).
- b. Personnel and financial reports containing the following information: a statement of funds estimated to remain unobligated as of the anniversary date; a current year budget based on actual funds spent and a continuation request budget for the ensuing year in accordance with NSF Form 1030; estimated budgets for the current and ensuing year by area of activity according to the Summary Table of Requested NSF Support; names of senior personnel by interdisciplinary research group; current information about other support of senior personnel and a statement of institutional and other support for the Center.
- c. An updated long-range plan, including projected activities, long-range budget expectations, and priorities through the expiration of this Agreement.

**Note:** The Guidelines for the Final report are identical as the final report is effectively the last annual report.

These guidelines spell out the format for Annual Progress Report for the Materials Research Science and Engineering Centers (MRSECs). Annual progress reports are due approximately six weeks before the continuation date of the MRSEC award. Annual progress reports are due: (a) May 15 for continuation dates between July 1 and October 1; or (b) 3 weeks prior to a scheduled Site Visit.

Please prepare the report using the headings, instructions, and the table templates provided, in the order indicated in the following guide. *The narrative sections are to be written in third person*. The report must be submitted through the annual report option of Research.gov (Note, that annual report due dates in the Research.gov system are based on the initial award date and may not coincide with the continuation date of the award). Please submit the entire report as a single pdf file including the budget pages and tables. If the pdf file exceeds the research.gov pdf file size limit, the file may be broken into several pdfs. In addition, report only those publications/patents that explicitly acknowledge the appropriate MRSEC support (DMR-14XXXXX or DMR-11YYYYYY) in the acknowledgement section; these publications should be (a) listed in section 14 of the annual report, and (b) counted in Appendix E. It is further encouraged that the NSF MRSEC Program and the local Center name be acknowledged as well.

Research.gov questions should be referred to the Help Desk (1-800-381-1532).

#### **Checklist for MRSEC Annual Progress Reports**

- □ Ensure that you are working from the current Guidelines.
- ☐ Ensure that you comply with the page limitations (when stated) in a given section
- Annual progress reports are due at NSF six weeks before the continuation date of the MRSEC award. Annual progress reports are due May 1 for continuation dates between July 1 and October 1.
- Prepare the PDF file as normal per the Annual Progress Report Guidelines.
- □ For Research.gov: insert the following text into all Annual Project Report module sections: "See attached PDF of Annual Report". Do not upload or enter any publications in the Products Module.
- □ Submit the entire PDF report, including the narrative sections; budget pages and tables, as a single PDF file via the file upload function in the Accomplishments module on Research.gov.
- □ Submit the Breakout Budget Excel spreadsheets via e-mail to <a href="mailto:mrsec@nsf.gov">mrsec@nsf.gov</a>; also include a PDF these spreadsheets in the budget section of the annual report (see section 17 below).
- □ The Sponsored Project Office needs to submit Certification of Cost Sharing documented on an annual and cumulative basis via Research.gov, if applicable.
- Send all Highlights in PowerPoint format to <a href="mailto:mrsec@nsf.gov">mrsec@nsf.gov</a>. One Highlight per file, using the following filename: 'University' MRSEC 'cooperative agreement number' 'IRG-#' 'author name' 'Highlight title.' For example, a Highlight on patterned proteins by Mary Smith from the Epsilon MRSEC would read: Epsilon MRSEC 1420565 IRG-1 Smith Patterned proteins. Please ensure that Highlights created on an Apple computer open properly on a Windows machine before transmitting them to NSF.

- Post <u>two</u> of the above Highlights (the best two) on the mrsec.org website before or coincident with the submission of this annual report. This can be done directly or by sending the Highlights to <u>webmaster@mrsec.org</u>.
- □ Update your MRSEC website at least annually
- □ All narrative sections are to be written in the third person.
- Describe both accomplishments/progress and plans in narrative sections 4-9.
- □ Address diversity at **all** academic levels in the Diversity Strategic Plan.
- Double check the numbers in budget pages:
  - o For each budget page, Line L should reflect the numbers entered in lines A-K.
  - o The total MRSEC budget should be the sum of the five breakout budgets.
- □ Use a consistent list of Center participants at the faculty level in Narrative Section 2(i) and in Appendix A.
- □ The numbers entered in Appendix G should be consistent with those in the budget pages.
- ☐ The numbers entered in Appendix H should be consistent with those in appendices D and G.
- Round numbers in the Appendices to thousands.
- □ Feel free to submit a memory stick including copies of the publications reported in Section 14 of the Annual Report. Please mail it to MRSEC Program Director, Division of Materials Research, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230-0002

# MRSEC PROGRAM ANNUAL PROGRESS REPORT GUIDELINES REPORTING PERIOD: XX/2016 - YY/2017

#### CONTENTS

#### **Narrative Sections:**

1. Executive Summary (Limit 5 pages in length; You may wish to divide the page limit as indicated below)

This is a high level report to NSF of major accomplishments, activities, and plans of the MRSEC

- 1a. Vision and Overview (2 or fewer pages recommended)
- State the vision of the Center and how the Center is organized into IRGs and Seeds.
- Provide a Director's overview of the Center, including education activities, the Center diversity effort, industrial outreach, international collaborations, shared facilities, and Center management.
- **1b.** Center Accomplishments for Current Reporting Period
- Provide a narrative of the **past year's Key Accomplishments**, addressing the NSF criteria on Intellectual Merit and Broader Impacts in distinct sections.
- Discuss the Center's response to any site visits and external advisory committee recommendations.
- Briefly describe progress made with supplemental funding, if applicable.
- Finally, comment on any long-range plans, change in priorities, or other unusual circumstances that are pertinent for the continuations of this award.
- 2. List of Center Participants (faculty rank or equivalent) by academic departments in the three categories, below; names in categories (i) and (ii) should sum to the number of participants reported in Appendix B. For Center participants from industry or National Laboratories list the "equivalent" academic department.
  - (i) Lead Participant: Receiving MRSEC support (not necessarily *salary* support). Please state full names. Support is from NSF provided funds.
  - (ii) Non-Lead Participant: supported from other sources
  - (iii) Affiliated: not receiving Center support.
  - (iv) User of shared Center facilities.

#### 3. List of Center Collaborators.

Alphabetized list of names of collaborators during this reporting period (not including those listed as Center Participants), their institutional affiliation, email address, area of expertise, and reference to the appropriate IRG and Seed and/or the use of shared facilities. This provides more detailed information than the numbers entered in Appendix F.

Collaborator	Institution	e-mail	Area of	IRG #	User of
			expertise	or seed	Shared
				association	Facilities
John Doe	Biomet	jdoe@biomet.com	polymers	2	Yes
Jane Smith	State	jsmith@state.edu	structural	1	No
	University		mechanic		
			S		
James	Private	jwalker@pi.org	Metals	NA	Yes
Walker	Institution				

#### 4. Strategic Plan (Limit 2 pages).

Restate the vision of the integrated Center. In separate paragraphs, identify the research, education, and diversity goals of the MRSEC. Describe activities used to develop a Center's vision and mission, which is shared by center participants. In addition, describe how the MRSEC plans to achieve the goals, what process is used to monitor progress, and what mechanisms of assessment or metrics are used. If no changes please state "same as original proposal or previous year"

**5.** Research Accomplishments and <u>Plans</u> (Limit 5 pages per IRG, 1 page per Seed project, 2 for a Super Seed)

A synthesis of scientific <u>accomplishments</u> and challenges **for this reporting period only**, and plans for the upcoming years. <u>List faculty and senior participants by full name, and include the numbers of students and postdocs involved in the work before the narrative for each IRG and Seed.</u>

#### **6. Education and Human Resources** (Limit 5 pages)

(a) Describe the current **reporting period** and planned activities. Provide a detailed narrative of REU and RET activities, including the student selection process, names of students and teachers with titles of their projects. (b) Describe efforts to measure the impact of the education and outreach activities.

#### 7. Post-doc Mentoring Plan (Limit 1 page) and Data Management Plan (Limit 2 pages)

For MRSECs that support Postdoctoral Researchers, describe the current Center-wide Postdoctoral mentoring activities and planned activities for future years, see NSF Proposal & Award Policies & Procedures Guide (PAPPG), NSF 15-1. If no changes, simply state "same as in original proposal" or "same as previous year". Repeat for the Data Management Plan

#### 8. Center Diversity - Progress and Plans

MRSEC Diversity Strategic Plan: (Recommended 3 page limit)

(a) **Current status and progress** since the last reporting period. How effective was the MRSEC's plan to increase the diversity of the Center's leadership, faculty, undergraduate, graduate students, and postdoctoral associates, as well as the REU and RET programs associated with the Center?

(b) Plans for the next reporting period. Describe goals and intended actions to increase the diversity of the Center's leadership, faculty, undergraduate, graduate students, and postdoctoral associates, as well as the REU and RET programs associated with the Center. The updated Diversity Strategic Plan should highlight key deficiencies identified in the previous year's plan and new strategies to rectify them. The focus of these diversity efforts will be on achieving a demonstrated impact by benchmarking vs. national science and engineering averages\* for the involvement of underrepresented groups in STEM.

#### 9. Knowledge Transfer to Industry and Other Sectors (Recommended 2 page limit)

Describe current and planned collaboration and interaction with industry and national labs; workshops; and, others as appropriate.

#### 10. International Activities (Recommended 2 page limit)

Describe current and planned international activities such as collaborations, faculty / student exchanges, workshops, use of user facilities, etc.

#### 11. Shared Experimental/Computational Facilities (Recommended 2 page limit)

Describe what they are, their use and accessibility, supervision, cost recovery, and planned acquisitions. If the Center is a member of the Materials Research Facilities Network, describe the progress and plan.

#### 12. Administration and Management (Recommended 2 page limit)

Organization chart, list membership of Center internal and external committees.

- **13. List Ph.D. students** graduated with MRSEC support over the past year, with placement, if known. Also, list postdocs who left during the past year, with placement if known. Please state full names. Indicate underrepresented minorities and women.
- **14. List (and number) of MRSEC-supported publications** <u>and</u> <u>patents</u> covering the current award period. List published papers by IRG and Seeds, alphabetically by first faculty participant author. List papers only once, even if they report research results of more than one IRG. Use **bold face** to designate each **author** that is a Center faculty participant or faculty equivalent if from industry or a national laboratory; for this purpose, faculty participants are those listed in Section 2(i). Only include papers actually published since the last annual report. **DO NOT INCLUDE SUBMITTED, IN-PRESS, OR ACCEPTED ENTRIES.** Use the categories below:

#### IRG-1

- a. Primary MRSEC support that acknowledge the MRSEC award approximately 50% or more support from MRSEC. Feel free to note publications with 100% MRSEC support.
- b. Partial MRSEC support that acknowledge the MRSEC award less than 50% of support from MRSEC

<sup>\*</sup> In compliance with the requirements of federal law, no university receiving federal funds will employ quotas or set-asides based on gender, race, or ethnicity.

c. Publications resulting from IRG research, but do not acknowledge the MRSEC award. These cannot be included in the Table of Appendix E.

#### IRG-2 (etc.)

- a. Primary MRSEC support that acknowledge the MRSEC award. Feel free to note publications with 100% MRSEC support.
- b. Partial MRSEC support that acknowledge the MRSEC award
- c. Publications resulting from IRG research, but do not acknowledge the MRSEC award.

Suggested acknowledgement text for primary (partially) supported publications: "This research was primarily (partially) supported by NSF through the University of Epsilon Materials Research Science and Engineering Center DMR-14XXYYZ"

#### Seeds / Initiatives

- a. Primary MRSEC support that acknowledge the MRSEC award. Feel free to highlight publications with 100% MRSEC support
- b. Partial MRSEC support that acknowledge the MRSEC award
- c. Publications resulting from Seed research, but do not acknowledge the MRSEC award.

#### **Shared facilities**

 no direct MRSEC support but research and subsequent publication directly impacted by use of shared facilities.

Suggested acknowledgement text for research performed using MRSEC supported facilities (instrumentation or computation): "The authors acknowledge the use of facilities and instrumentation supported by NSF through the University of Epsilon Materials Research Science and Engineering Center DMR-14XXYYZ"

**Patents** - List patents using the following categories:

- a. Patents granted during the current period
- b. Patent applications (excluding provisional applications) during the current period.
- c. Patents and Patent Applications Licensed during the current period.
- **15. Brief biographical information for each** new investigator (faculty member or equivalent) maximum 1 page.
- **16. Honors and Awards** List and briefly describe **significant** honors and awards given to Center participants during the funding period.
- **17. HIGHLIGHTS:** Research and Education Highlights are a crisp one-page summary of a recent *significant* result with an interesting and informative image highlighting your NSF funded work. Include a title, list of authors with affiliation(s), an appropriate color image (avoid graphs), and an acknowledgement of support with award number(s) for each highlight. We plan to use these highlights to illustrate the work that MRSEC supports. They might be used

in NSF documents and presentations or posted on NSF and MRSEC.org web pages, for example. The text and graphics should capture the essence of the activity you wish to highlight. The graphics are particularly important and can include images or photographs. The text and graphics should be at the level of a press release, explaining briefly and *in non-technical* language what has been accomplished and why it is significant. Please include a technical description of the work in the notes section of the PowerPoint slide.

MRSEC Highlights will be made available to the public on the Division of Materials Research website and in CD format. By sending us a Highlight you grant NSF the right to reproduce and disseminate your images for various possible uses. If you are planning to patent your work it is your responsibility to consult with the appropriate person at your institution to ensure that sending us the requested material does not jeopardize your intellectual property rights.

Observe the following guidelines:

- Provide no more than two science Highlights per IRG.
- Provide no more than two Seed related Highlights.
- Provide no more than two Education related Highlights.
- Provide no more than two other Highlights on shared facilities and/or partnerships (industry, national lab, international, etc.).

**Send all Highlights in PowerPoint format to mrsec@nsf.gov.** One Highlight per file, using the following file name: 'University' MRSEC 'cooperative agreement number' 'IRG#' 'contact last name' 'Highlight title.' For example, a Highlight on patterned proteins from IRG-1 by Mary Smith from Epsilon University would read: Epsilon MRSEC 0520565 IRG-1 Smith Patterned proteins.

Please post at least <u>two</u> of the above Highlights on the mrsec.org website before or coincident with the submission of this annual report. This can be done directly or by sending the Highlights to <u>webmaster@mrsec.org</u>.

Note: The annual report will not be approved until Highlights are received at NSF and are posted on the mrsec.org website.

#### **Fiscal Sections and Appendices:**

**18. Statement of Unobligated Funds** for this award. Provide a \$ figure, not a percentage of the total.

#### 19. Budget

#### **Closing Year Budgets:**

A. Closing year budget on NSF Form 1030 reporting actual \$s spent from the last reporting period to present.

B. Budget Explanation Page based on A. Include the following information:

- Section A continuation of faculty receiving salary support
- Section D Equipment purchased (itemized per GPG)
- Section F Foreign travel including destination country(s) and purpose (International Conference, Workshops, Research outside US, education outside US, etc.)
- Section G explanation for subawards and other additional information as necessary
- C. No subaward or supplement budgets are necessary.
- D. One page PDF of completed MRSEC Breakout Budget Excel spreadsheet for the closing year using **actual** amounts reported on Form 1030. The columns in the spreadsheet show how MRSEC funds are distributed by:
  - 1. Research (IRGs and Seeds), Section 5 of the narrative.
  - 2. Education Activities and Human Resources, Sections 6 and 7 of the Narrative.
  - 3. Outreach and Knowledge Transfer, Section 8 of the narrative.
  - 4. Shared Equipment and Computational Facilities, Section 9 of the narrative
  - 5. Administration, Section 10 of the narrative.
  - 6. Automatic sum of Columns 1-5. The totals will equal those reported on Form 1030.

This data will be used in Appendix G.

#### **CONTINUATION REQUEST**

- A. Total requested MRSEC budget on NSF Form 1030.
- B. Budget Explanation Page for requested MRSEC budget.
  - Section A continuation of faculty receiving salary support.
  - Section D Equipment to be purchased (itemized)
  - Section F Foreign travel including destination country(s) and purpose (International Conference, Workshops, Research outside US, education outside US, etc).
  - Section G explanation for subawards and other additional information as necessary.
- C. Subaward budgets on NSF Form 1030, as needed.
- D. One page PDF of completed MRSEC Breakout Budget Excel spreadsheet for the requested year **increment.** The columns in the spreadsheet show how MRSEC funds are distributed by:
  - 1. Research (IRGs and Seeds)
  - 2. Education Activities and Human Resources
  - 3. Outreach and Knowledge Transfer
  - 4. Shared Equipment and Computational Facilities
  - 5. Administration
- 6. Automatic sum of Columns 1-5. The totals will equal those reported on Form 1030. This data will be used in Appendix G.

Please send completed MRSEC Breakout Budget Excel spreadsheets to mrsec@nsf.gov.

18. APPENDICES - Please complete the Templates that follow.

#### **APPENDIX A**

Summary Table of faculty support (annual basis) showing person-months (MRSEC, other NSF, other federal, other non-university) for each MRSEC faculty member, by academic department (current year). NOTE: (1) The total dollar support columns (\$k) should include salary of faculty member and share of faculty member's support for students, postdocs, materials/supplies, etc., including overhead. (2) The names listed in this table should be consistent with the List of Center Participants at the beginning of the annual report.

TEMPLATE: Support of NSF-MRSEC Faculty (or equivalent for nonacademic participants) for the Current Award Period. Please list faculty names by academic department (or equivalent)

		Person-Months of Support (Academic Year and Summer)				
	NSF MRSEC Funds (\$K)	NSF MRSEC	Other NSF	Other Fed. Gov.	Other Non- University	
Dept.						
Chemistry						
Electrical Engineering						
Materials Science						
Physics						
		1				

**APPENDIX B:** Number of faculty (or equivalent for nonacademic participants), the participants' departmental affiliation, postdocs, graduate students, undergraduates, and support staff in the MRSEC, showing number of women and members of underrepresented minority groups (URMs). For information on which ethnic and minority groups constitute URMs, see for example: <a href="http://www.nsf.gov/mps/broadening\_participation/index.jsp">http://www.nsf.gov/mps/broadening\_participation/index.jsp</a>. <a href="http://www.nsf.gov/mps/broadening\_participation/index.jsp">NOTE</a>: (1) The salaried faculty participants are those who receive faculty <a href="salary">salary</a> support. (2) The sum of faculty participants by department will be the same as the sum faculty participants in the top of the table and listed at the beginning of the annual report. Pick one department affiliation for faculty with multiple affiliations. (3) MRSEC support refers to NSF awarded funds.

#### **TEMPLATE: CENTER PARTICIPANTS**

Center:	<b>Current Year Period</b>	
<b>G</b> CI.(CI.	ourrent rear remou	

Designation	Total	Female	Disability	URM
Lead Participants(tenure track) (a)+(b)				
(a) Receiving MRSEC salary support				
(b) Receiving MRSEC support (not salary)				
(c) Non-Lead Participants: other than MRSEC				
(d) Affiliated, no MRSEC support				
Participants(non-tenure track)				
- (e) Receiving salary support from MRSEC funds				
Participants by Department (tenure & non-				
tenure track) (a+b+c+d+e); use only integers				
Physics				
Materials Science				
Chemistry				
Biological Sciences				
Mathematics				
Electrical Engineering				
Chemical Engineering				
Mechanical Engineering				
Other Engineering				
Other Science				
Postdocs				
rostaocs				
Graduate Students (do not include PREM)				
Undergraduate Students (not REU or PREM)				
Technical Support Staff – Shared Facilities				
Technical Support Staff – non Shared Facilities				
IRG Leaders				
Education Staff not reported elsewhere				
Administrative Support Staff				

#### **APPENDIX C:** Education and Outreach

Use the Template provided below to list the total number of REU students and RET teachers supported by the MRSEC. Also, list the total number of K-12 students, and pre-college teachers and faculty from predominantly undergraduate institutions. Provide information for two groups of K-12 students: (1) *Active* participants that generally receive financial support (stipends, not materials and supplies) from MRSEC, and (2) the wider group of *impacted* participants (museum attendees, classroom students, etc). Breakout MRSEC financial support (\$K) for: K-12, MRSEC REU, other undergraduate programs, RET, Informal Science, The total of these five categories must equal what is reported on the Education Breakout Budget. List additional NSF REU and RET *Site* support (separate NSF award) which is affiliated with the MRSEC, and REU and RET Supplements. List the total MRSEC support of underrepresented minority programs.

### TEMPLATE: EDUCATION OUTREACH

Center:	Current Year Period:	

Designation	Number of Active Participants	Number funded by NSF MRSEC
REU Students total		
Female		
underrepresented minority		
disability		
RET Teachers total		
Female		
underrepresented minority		
disability		
,		
Other Pre-College Teachers total		
Female		
underrepresented minority		
disability		
Undergraduate Faculty total		
Female		
underrepresented minority		
disability		
	Number of K-12 students receiving MRSEC funds for stipend (not supplies)	Number of K-12 students Impacted Participants
K-12 Students total		
Female		
underrepresented minority		
disability		
		\$K
Breakout of MRSEC Educational Funds (do not		
include supplements) K-12		
MRSEC REU support Other Undergraduate support		
RET support, not supplement		
Informal Science		
Total Education Outreach (same as Total as		
MRSEC Education Budget column)		
TANCE Education Budget Column)		
REU and RET Site support (separate NSF award)		
REU and RET supplements		

#### APPENDIX D

Center:\_

**Total** Cost Contributions

Summary Table of annual dollar levels of support (or dollar equivalent):

**Cost contributions**; i.e. complementary support for MRSEC activities not listed on line M in the budget. The MRSEC effort can be augmented by other sources, which may include cash contributions, sponsored projects to the Center, equipment donations, laboratory renovations, etc. Note: *Do not include* sponsored projects to the individual faculty members, even if they are related to the core mission.

#### **TEMPLATE**

#### **COST CONTRIBUTIONS**

	Current Year	Proposed Year	
Reporting Period			
Designation	\$K	\$K	
Cost Contributions (support not on line M)			
Other NSF (include supplements to the MRSEC)			
Other Federal			
State			
Local			
Foundation			
Industry			
University			
International			
Other			

**Cost contribution explanation page**: Please attach a brief list of cost contributions (i.e., how cost funds were spent: faculty salary, student support, equipment, etc). Do not include buildings.

### **APPENDIX E**

**Output** - Provide numerical data on Publications, Patents and Center graduates. Only count those publications that reference MRSEC support.

	OUTPUT
Center:	Current Year Period:

Designation	Number Current Year	Cumulative Totals for the Award
Publications from IRGs and Seeds		
Primary Publications that explicitly acknowledge MRSEC DMR-14YYYYY Support		
Partial Publications that explicitly acknowledge MRSEC DMR- 14YYYYY Support		
Number of Primary and Partial Publications that acknowledge explicitly MRSEC DMR-14YYYYY Support coauthored by 2 or more Lead participants as defined in Section 2(i)		
Number of Primary and Partial Publications that explicitly acknowledge MRSEC DMR-14YYYYY support not previously reported		
Publications that explicitly acknowledge the use of Shared Facilities		
Patents		
Awarded		
Pending		
Licensed		

	Terminal Masters Students Graduated		Ph.D. Stude	nts Graduated	Post-doctors Completed Study	
Next position	Number	Cumulative	Number	Cumulative	Number	Cumulative
	Current	Totals for this	Current	Totals for this	Current	Totals for this
	Year	Award	Year	Award	Year	Award
Academic Inst.						
National Labs						
Industry						
Non-science						
No data/no job						
Total						
Women						
URM (All) *						
URM (US) *						

\* URM = Under-Represented Minorities in Science Technology Engineering and Mathematics (STEM). Please report two numbers for graduate students and post-docs: all URM and those that are US citizens or Permanent Resident Aliens. For information on which ethnic and minority groups constitute URMs, see for example:

http://www.nsf.gov/mps/broadening\_participation/index.jsp

**APPENDIX F: Collaborations** - see Item 3 in the Guidelines.

#### **TEMPLATE**

#### **COLLABORATIONS**

Center:	Current Year Period :
Center	Cultelle real Fellou .

	N. 1
Designation	Numbers
Collaborators (in addition to Center participants)	
Academic Institutions	
Academic collaborators	
National Labs	
National Lab collaborators	
Industry (# of companies)	
Industry collaborators (# of individuals)	
Users of Shared Facilities (in addition to Center participants, incl	uding those supported
by the Materials Research Facilities Network or MRFN)	
Academic Institutions	
Academic collaborators	
National Labs	
National Lab collaborators	
Industry (# of companies)	
Industry collaborators (# of individuals)	
Users of Shared Facilities supported by MRFN	
Academic Institutions	
Academic collaborators	
National Labs	
National Lab collaborators	

Industry (# of companies)	
Industry collaborators (# of individuals)	

#### **APPENDIX G**

NSF MRSEC support by IRG and other activities for both the current and the requested award period. **Note:** For each entry in the Table, include indirect costs. Subtotals for Research, Education Activities and Human Resources, Outreach and Knowledge Transfer, Shared Equipment and Computational Facilities, and Administration should be the same as those reported in the breakout budget Excel Spreadsheet. Include major capital equipment under shared experimental facilities. Support for graduate students should normally be included under research, not under education and human resources.

#### **TEMPLATE**

#### MRSEC SUPPORT

Center:
---------

Designation	\$K Current award period	% of total budget	\$K Requested award period	% of total budget
IRG 1				
IRG 2				
IRG 3				
Additional IRGs as appropriate				
Total all IRGs				
Seeds and Emerging Areas				
Total Research (IRG's + Seed's)				
Education Activities and Human Resources				
Knowledge Transfer (industry and others)				
Shared Experimental and Computational Facilities				
MRSEC Administration				
Total		100		100
Shared equipment facilities				
Other equipment				
Total equipment				
SEF Technical staff supported by Center				

#### **APPENDIX H**

Additional support that leverages NSF MRSEC support and how this additional support is spent in the Center on an annual basis (Total MRSEC award / 6). This additional support consists of cost sharing and cost contributions as defined in Appendix D Appendices D1 and D2. The numbers provided in this table should be consistent with those in appendices D and G.

# TEMPLATE MRSEC Leveraged SUPPORT (current award period)

Center:	<b>Current Year Period</b>	
	•	

	_		
Designation	<b>NSF MRSEC</b> (Same as in Appendix G)	Cost contributions (same total amount as in Appendix D)	Total all sources of Support (sum of 3 columns)
	\$K	\$K	\$K
IRG 1			
IRG 2			
IRG 3			
Additional IRGs as appropriate			
Total all IRGs			
Seeds and Emerging Areas			
<b>Total</b> Research (IRGs + Seeds)			
Education Activities and Human Resources			
Shared			
Knowledge Transfer (industry and others)			
Shared Experimental and Computational			
Facilities			
MRSEC Administration			
Total			
Shared facilities equipment			
Other equipment			
Total equipment			
Total equipment			
SEF Technical staff supported by Center			

#### **APPENDIX I:** Partnering Institutions

Many MRSECs have associations with a number of universities in the US and abroad, as well as with other types of research, education, and industrial organizations. These partnerships may or may not involve financial arrangements between the Center and the partner. Partnerships generally imply **significant** participation in the planning and execution of activities of the Center. They can include minority-serving institutions that have substantial research and / or educational interactions with the Center. <u>DO NOT INCLUDE ONE-ON-ONE COLLABORATIONS</u>.

Partnering institutions may be associated with NSF awardees under the programs designed to enhance minority participation such as the Louis Stokes Alliances for Minority Participation (LSAMP), Alliances for Graduate Education Program (AGEP), Centers for Research Excellence in Science and Technology (CREST), and the Tribal Colleges and Universities Program (TCUP). List for each of these programs the lead institution of each awardee with which the Center has formal relationships.

The table distinguishes between partnerships with academic institutions and non-academic institutions. Academic partners generally include domestic and foreign universities/colleges. Generally, K-12 institutions are not included in this list unless they have significant input into the education outreach activities of the Center. Non-academic partners include those from industry, National Laboratories or other federal government agencies, State supported institutions, Museums, etc.

<b>APPENDIX I: TEMPLATE: Partnering Institution</b>	<b>ns</b> (with examples shown)
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Center:	_ Current Year Period	
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Indicate nature of financial support and type of partnering institution (more than one box may be checked)

		Receives	Contribute	Minority	Female	National	Industry	Museum	International
		Financial	s financial	Serving	Serving	Lab/	Partner	Partner	Partner
		Support	support to	institutio	Institutio	other			
	Name of	from MRSEC	the	n	n	govt			
	Institution		MRSEC	Partner	Partner	Partner			
I. Academic Partnering									
Institutions	University A								
	University B	X		Х					
	University C								Х
Total Number Academic									
Partners	3	1		1					1
II. Non-academic Partnering									
Institutions	Company D		Х				X		
	National Lab E					Х			
	Museum F	X						Х	
	Company G						Х		Х
Total Number Non-academic									
Partners	4	1	1	1		1	2	1	1
Total Number of academic and	7								

non-academic partners					
Hon-academic partiers					

## Appendix J

The NSF seeks to support transformative research, http://www.nsf.gov/pubs/2007/in130/in130.jsp. The MRSEC Seed program should in particular pursue high impact, high risk projects.

Please list the titles of all Seed projects since the start of the current award. Indicate the expectations for the seed at the time of award, the result of this investment, and whether or not the work can be categorized as transformative. If transformative, add a footnote describing why.

**TEMPLATE:** SEEDS (with examples shown)

Title of Seed Projects			Expectation(s)				Outco	mes				
	Date started (mm/yy)	Date ended (mm/yy)	Integrate into IRG	Nucleate new IRG	Bring new faculty into the center	Other (Specify)	Transformative	Integrated into IRG	Nucleated new IRG	Attracted external funds	Discontinued	Other (Specify)
			х				х					
				х			Х		х			
						Х						
Totals			1	1	0	1	2	0	1	0		0

# Appendix K

Please list the name of all start-up companies based on MRSEC research from this and previous MRSEC, MRL, and MRG award periods.

Company Name	Year of establishment	Brief Name of IRG or SEED where research originated	City, State, Zip	Website