

## **Guidelines for 2017 PREM Annual Report**

These guidelines were developed to provide a uniform reporting structure for the Partnerships in Research and Education in Materials (PREM) annual reports and to provide the NSF with useful data to monitor the health and success of the program.

The purpose of the Annual Report is to communicate the advances made in science as well as the number of underrepresented groups trained in materials research. Please focus on the accomplishments in the research, the development of students, numbers of students graduating, and new opportunities for both students and faculty. Be as quantitative as possible. Annual Reports covers the period from the last annual report to present, and includes some cumulative information.

Please prepare the report using the headings, instructions, and the table templates provided, in the order indicated in the following guide. The Report must be submitted through NSF FastLane.

Please submit the entire report as a single pdf file including the budget pages and tables. If the pdf file exceeds the file size limit, the file may be broken into several pdfs. In addition, report only those publications/patents that acknowledge PREM support in the acknowledgement section and that were published during the period cover by the Report.

### **Checklist for PREM Annual Reports**

1. Executive Summary
2. List of Participants
3. Research Accomplishments
4. Education and Outreach Accomplishments
5. Postdoctoral Mentoring
6. List of students (K-12, undergraduate, graduate, and Post-Docs)
7. List of Publications and Patents
8. List of Presentations
9. Output Tables
10. Highlights
11. Budget Allocations
12. Successful Proposals as a Direct Result of PREM Funding
13. Number of Submitted Individual Investigator Proposals
14. Miscellaneous

# PREM Program

## Annual Progress Report Guidelines

1. **Executive Summary** (maximum 2 pages)
  - Vision statement (1-2 sentences)
  - Key Accomplishments achieved during this reporting period in terms of
    - A) Intellectual Merit
    - B) Broader Impacts
  - Building and Sustaining the Pipeline: Please describe this year's effort to further broaden participation and enhance diversity in materials research and education. Include details on the PREM student demographics in relation to the PREM institutional setting as well as recruitment and retention efforts.
  - Describe the PREM's response to any site visit and external advisory committee recommendations.
  - Finally, comment on any long-range plans, change in priorities or key personnel, new scientific or outreach directions, or other unusual circumstances that are pertinent for the continuations of this award.
2. **Lists of Current PREM Participants including their names and academic department in the following categories** (Note, do not include people that recently left the PREM. They are reported in the 'graduated' section of the report):
  - Faculty receiving support (Support includes faculty salary, **and/or** funding for students or post-docs)
  - Faculty affiliated (participating in PREM, but not receiving support)
  - Faculty at Partner Institution receiving support
  - Faculty affiliated at Partner Institution
  - Post-docs receiving support
  - Post-docs affiliated
  - Graduate students receiving support
  - Graduate students affiliated
  - Undergraduates receiving support
  - Undergraduates affiliated
  - Others receiving support, please specify
  - Others affiliated

Indicate at the end of each participant list the total number of women, and underrepresented minorities in science in the following categories: Hispanic, African American, Native American, and Pacific Islanders. (MSI – Minority serving Institution.) To protect the privacy of individuals we collect aggregate data on underrepresented minorities (URM). *Please do not indicate the gender or minority status of individuals.*

## PREM PARTICIPANTS

<i>Designation</i>	<i>Total Number</i>		<i>Female</i>	<i>Underrepresented minority</i>		<i>Disabled</i>
	<i>Supported</i>	<i>Affiliated</i>		<i>US Citizen</i>	<i>Non US Citizen</i>	
<i>PREM Faculty participants at MSI</i>						
PREM Faculty at MSI receiving salary support from PREM						
Partner Faculty participants						
Partner Faculty participant(s) receiving salary from PREM						
<i>MSI Faculty Participant's Affiliation</i>						
Chemistry						
Biological sciences						
Geological sciences						
Mathematics						
Materials Science						
Physics						
Electrical Engineering						
Chemical Engineering						
Materials Science Engineering						
Mechanical Engineering						
other engineering						
other science						
<i>Post-docs</i>						
<i>Graduate Students</i>						
<i>Undergraduate Students</i>						
<i>Undergraduate Summer Research Students (at your PREM)</i>						
REU Students (sent to partner inst.)						
<i>Technical Support Staff</i>						
<i>Education Staff</i>						
<i>Administrative Support Staff</i>						

For information on which ethnic and minority groups constitute URMs, see for example:

[http://www.nsf.gov/od/broadeningparticipation/nsf\\_frameworkforaction\\_0808.pdf](http://www.nsf.gov/od/broadeningparticipation/nsf_frameworkforaction_0808.pdf)

**NOTE:** (1) Participants are those who receive support from the PREM (salary, students, post-docs, etc.). (2) Affiliates are those that participate with the PREM without support from the PREM award. (3) Salaried faculty participants are those who receive faculty salary support from the PREM award. (4) The sum of faculty participants in the departments should be the same as the faculty participants near the top of the table for both supported and affiliated. Pick one department affiliation for faculty with multiple affiliations.

3. **Research Accomplishments and Plans** (limit 5 pages)

Discuss the results of ongoing research projects. Organize the projects under the major tasks or research thrusts originally proposed. Include:

- a statement of the objective of the research project
- the names of the faculty and students involved in each project
- a description of the role of the partner institution
- a description of the research performed and the most significant results obtained
- research plans for the coming year.

4. **Education and Outreach Accomplishments** (limit 5 pages)

Discuss the education projects (course development, REU, etc.). Include:

- a statement of the objective of the education project
- the names of the faculty and students involved in each project
- a description of the role of the partner institution
- a description of the significant results obtained
- education plans for the coming year

List of Summer Research Projects at PREM. Include the student name, mentor name, project title, and if work resulted in a publication.

List of Research Experience for Undergraduates (REUs) Projects at the partner institution. Include the student name, mentor name, project title, and if work resulted in a publication.

5. **Postdoctoral Mentoring** (limit 1 page)

For PREMs that support Postdoctoral Researchers, describe the current PREM-wide Postdoctoral mentoring activities and planned activities for future years, see NSF Proposal & Award Policies & Procedures Guide (PAPPG), NSF 10-1.

[http://www.nsf.gov/pubs/policydocs/pappguide/nsf10\\_1/nsf10\\_1.pdf](http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/nsf10_1.pdf)

6. **Tables of PREM Graduates**

Please provide cumulative Tables of students that have ‘graduated’ from the PREM program with the format below. Create one Table for each academic level of your PREM program (undergraduate, graduate student, post-doc), as appropriate. Order entries by the year of graduation with the latest year at the top. Indicate graduates in this reporting period in **bold face** and graduates in previous reporting periods in regular type. Update the career path of graduates from previous years if known.

**Cumulative Table of Undergraduates who were part of the PREM award**

Year Graduated	Name	Major/ Department	Number of years in PREM	Graduated (Yes/No)	Part of PREM when they Graduated (Yes/No?)	Research Experience/Vis it the Partner Institution (Yes/No?)	Where are they today?
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2009	Anne Student	Chemistry	2				Graduate School, ChemE, Univ. of Wisconsin - Madison
2009	John Grad	Physics	1				industry
2008	Joan Teacher	Chemical Eng	1				High School Teacher
2007	Tom Smith	Physics	1				Graduate School, Mech. Eng., Carnegie Mellon

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Cumulative Table of **Graduate Students** who have left the PREM

Cumulative Table of **Post-docs** who have graduated from PREM

Cumulative Table of **Undergraduate Students** who participated **ONLY** in NSF REU at the Partner Institution or conducted summer research at the PREM during the PREM award

Name	Major/Depart.	Number of REU Experiences	Number of summers conducting research	Graduated (Yes/No?)	Where are they today?
Anne Student	Chemistry	2	0	Yes	Graduate School, ChemE, Univ. of Wisconsin - Madison
John Grad	Physics	0	2	Yes	Industry
Joan Teacher	Physics	0	1	No	High School Teacher
Tom Smith	Materials Science & Eng	1	1	Yes	Grad School, Mech. Eng., Carnegie Mellon

Complete the following two **Diversity Statistics Tables**. Indicate the total number of graduates in this reporting period and cumulatively, regardless of race or ethnicity. Also indicate the total number that are women, that are from under represented minority groups in science, and those that are disabled. Please report two numbers for post-docs and graduate students: All URM and US URM as defined in Item 2 above.

**Diversity Statistics for those students and post-docs that have graduated during the Current Reporting Period.**

	Total	Women	Disabled	<u>All</u> Under represented Minorities (US and Non-Us Citizenship)					<u>US Citizens and Permanent Residents only</u> Under represented Minorities					
				AA	His	NA	PI	O	AA	His	NA	PI	O	
Post-docs														
Grad Students														
Undergraduates														
K-12 students														
K-12 teachers														

**Codes:**

- AA: African American
- His: Hispanic
- NA: Native American
- PI: Pacific Islander
- O: Other

**Cumulative Diversity Statistics for all students and post-docs that have graduated from the PREM.**

	Total	Women	Disabled	<u>All</u> Under represented Minorities (US and Non-Us Citizenship)					<u>US Citizens and Permanent Residents only</u> Under represented Minorities					
				AA	His	NA	PI	O	AA	His	NA	PI	O	
Post-docs														
Grad Students														
Undergraduates														
K-12 students														
K-12 teachers														

**Codes:**

- AA: African American
- His: Hispanic
- NA: Native American
- PI: Pacific Islander
- O: Other

**7. List of Publications**

List work actually published in this reporting period resulting from PREM support. Publications that do not acknowledge PREM support should not be listed. Those publications acknowledging multiple sources of funding should state the contribution of the PREM funding to the published work. Do not include submitted or accepted papers. Indicate PREM faculty in **bold face** and post-docs, graduate students, and undergraduate students in underline. List patents, if appropriate, and indicate whether a patent is pending, granted or licensed.

**Note:** Report only those publications/patents that acknowledge PREM support in the acknowledgement section and should be (a) listed in section 7 of the annual report, and (b) counted in the Output Table of section 9. We accept PREM acknowledgements in the form of DMR-1234567 (where the actual number is that of the PREM solicitation under which the award was made). It is encouraged that the NSF PREM Program, and DMR partner name (MRSEC, Facility, etc.) be acknowledged as well.

**8. List of Presentations**

List of oral presentation and posters resulting from PREM support. Indicate PREM faculty in **bold face** and post-docs, graduate students, and undergraduate students in underline.

**9. Output Tables**

Complete the following table showing the numbers of Publications, Presentations and Patents (**if any**).

**OUTPUT TABLE**

<i>Designation</i>	<i>Number Current Year</i>	<i>Cumulative Totals for this Award</i>
<b>All Publications from PREM support</b>		
Publications with students/postdocs as co-authors		
Publications with 2 or more PREM faculty (at MSI) as co-authors		
Publications with faculty from Partner Institution as co-authors		
<b>All Presentations from PREM support</b>		
Presentations with students/postdocs as co-authors		
<b>Patents</b>		
Awarded		
Pending		
Licensed		

## 10. 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 PREM 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.

PREM 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. Examples of Highlights may be found at <http://www.nsf.gov/mps/dmr/highlights.jsp>.

- Prepare **all** highlights in **MS PowerPoint** format and send them to **prem@nsf.gov**. One highlight per file, using the following file name: ‘University’ PREM ‘award number’ ‘highlight title.’
- Please post **two** of the above highlights (the best two) on the prem-mrsec.org website coincident with the submission of this annual report. This should be done directly or by contacting the webmaster at webmaster@mrsec.org.
- Add Highlights to your website.

## 11. Budget

- a. Statement of anticipated unobligated funds at the end of the current fiscal year. If the unobligated funds are greater than 20% of the annual increment, please provide a justification of why previously received funds have not been spent.
- b. Prepare two sets of NSF Budgets (Form 1030), the first for the current fiscal year (show both budgeted and funds spent) and the second for the coming fiscal year.
- c. Complete the following table showing the allocation of funds. **Note: Funds to support students/postdocs conducting research are reported as 100% in the Research Category.**

<b>Designation</b>	<b>\$K Current award period</b>	<b>% of total budget</b>	<b>\$K Next award period</b>	<b>% of total budget</b>



Research (students receiving support engaged in research are accounted for here.)				
Education Activities				
Equipment				
PREM Administration				
<b>Total</b>		<b>100</b>		<b>100</b>

**12. Successful Proposals as a Direct Result of PREM Funding (> \$50K/year).**

<i>PI Name, Proposal Title</i>	<i>Agency or Organization (incl. NSF)</i>	<i>Award Duration</i>	<i>Award Start Date</i>	<i>\$K Total award amount</i>

**13. Number of Submitted Individual Investigator Proposals to DMR (Ceramics, Biomaterials Program, etc.), NSF, DOE, and other government agencies.**

Faculty Name	Total Number		
	DMR	Other NSF	Other agencies
<b>SUM</b>			

**14. Miscellaneous**

- Include any significant additional information that isn't captured in the sections above.  
Honors and Awards  
Assessments or Reports  
Etc.