FY12 NCAR Directorate Diversity Fund  
Proposal Template

Requests for FY12 NCAR Directorate Diversity Funds should be submitted to the Diversity Committee using this template. Please enter your text into the form fields built into the template, use your Tab and Shift+Tab keys to move forward or backward between the fields. Refer to the UCAR Diversity Fund Guidelines when preparing your request. Please contact Helen Moshak moshak@ucar.edu, ext. 1112 if you have any questions on the process. Raj Pandya, pandya@ucar.edu, ext. 2650 and Bob Roesch, broesch@ucar.edu, ext. 8703 are available to answer questions on proposal topics and contents.

All templates and guidelines are available at the NCAR Diversity Committee URL
https://ncar.ucar.edu/directorate/diversity-committee/ncar-diversity-proposals-program

ANTICIPATED TOTAL FY12 FUNDING: $120,000

SUBMISSION DEADLINES: Close of business, November 7, 2011

PROJECT DURATION: 12-24 months from award date. The project must begin in the current fiscal year and may extend into the following fiscal year if required.

MAXIMUM REQUEST PER PROPOSAL: $50,000 (total for entire period of performance)

CO-SPONSORSHIP: Preferred and evaluated in the review process. Please note that regular staff salary may not be counted toward co-sponsorship.

FUNDING LIMITS PER PROJECT: Typically, a project is limited to no more than 2 rounds of funding.

INTER-LAB COLLABORATION, AND COLLABORATION WITH EXTERNAL PARTNERS: Encouraged but not required.

NO-COST EXTENSIONS: subject to approval of NCAR Executive Committee and may not exceed six (6) months beyond the 24 month duration period.

General Guidance:

1) No benefit, including hiring for employment or allocation of Diversity Funds, will be allocated to an individual based upon that individual's race, color, religion, national origin, gender, sexual orientation, age, disability, marital status, veteran status, or any other characteristic protected by law. Individuals must be selected and/or hired without regard to these factors.

2) Proposals that initiate new efforts to support diversity across NCAR and the U.S. (NOTE: in this document “U.S.” includes Puerto Rico and other US commonwealths and territories) scientific community or support broad/multiple outreach that impact groups of people are preferred.

3) Eligible proposals generally cover one year but can extend to two years.

4) Inter-divisional collaboration, though encouraged, is not required and will not be part of the review criteria. University collaboration is also encouraged.

5) Participation from UCP and EO is encouraged but an NCAR staff member must serve as the NCAR PI. Funding will remain in NCAR.

6) Diversity Funds may be requested and used to pay for:
   a) an entire diversity project or effort, or
b) any portion of a project that meets the goals of the fund, including travel expenses, participant support costs, materials and supplies and advertising expenses

c) that portion of an individual’s salary for work that directly supports a diversity effort/function.

7) In order for Graduate and Postdoctoral Fellows to be eligible as PIs or to receive funds, the period of performance of the project should not extend beyond the Graduate and Postdoctoral Fellow’s term date. Exception requests must be approved by the appropriate NCAR Associate Director and another NCAR staff member must serve as the Co-PI.

8) The goal of the NCAR Directorate Diversity Fund is to provide start up funding for programs. Projects that increase the long term diversity of the UCAR/NCAR/UOP staff and contribute to enhancing diversity in the geosciences and meet one or more of the following objectives:

a) Increase or improve efforts within NCAR to reach and recruit applicants and students from groups that have historically been under-represented in the U.S. geosciences workforce and academic programs.

b) Provide education and outreach about academic or job opportunities and increase knowledge of the geosciences in general and interest in NCAR in particular with under-represented populations in the United States.

c) Support the initial establishment of long-term scientific, technical or education/outreach partnerships with collaborators at U.S. institutions serving underrepresented populations.

d) Increase diversity sensitivity at NCAR. For example, you might host or participate in diversity conferences/workshops (e.g. focusing on institutional practices and policies, leadership models, or strategies and approaches for increasing diversity).

e) Support staff or student retention efforts designed to provide professional development opportunities in improving the communication, collaboration and mentoring skills of, and resources for, all employees.

f) Welcome and nurture new students and employees and create a long-term caring community for all employees. For example, one might host workplace activities, including social activities, designed to increase the comfort level of, and inclusion of new recruits.

**Proposal Submission Process, Deadlines and Reporting**

Deadline for proposal submission is close of business on November 7. Please mail the following completed and approved documents to Cindy Worster/NCAR DIR ML:

1. A signed hard copy version of the completed Proposal Template
2. A completed Budget spreadsheet using the provided template.

Proposals shall be reviewed by a review panel convened by the NCAR Diversity Committee and made up of committee members with no conflict of interest. The review panel will provide proposal review and ranking recommendations to the NCAR Executive Committee. The NCAR Executive Committee will make the final award decisions.
If a proposal is awarded, the host program will set up a unique account key for the term of the project for tracking and reporting purposes. All unspent funds will be returned to the Director’s Office at the conclusion of the project.

**Schedule:**

**Close of Business, Monday November 7, 2011** Proposals due to Cindy Worster, NCAR Director’s Office.

November 8-18, 2011: Review Panel proposal review & recommendation period

November 21-30, 2011: Review and approval by NCAR Executive Committee (NCAR Executive Meeting is November 29)

December 2011: Transfer of funds by NCAR Budget and Planning Office

**Reporting:** A narrative final report (2 page minimum) and financial reports are required at the end of the project period. Send them to the attention of Cindy Worster.

- Include a standard DW-ART “Account Budget Summary” report for the project account number for each FY within the project period.
- In your final report, include 2-3 photos of the activities or outcomes. (Be sure to obtain a UCAR photo release form at www.eol.ucar.edu/dir_off/photorelease.pdf for any outside participants). These photos will be uploaded to the Diversity Committee website.
- The purpose of the report is to share the experience and knowledge gained with other programs.
- The report will describe the outcomes, the measure of progress and success, the extent of any internal collaborations or university interactions (for reporting purposes only, not a requirement), and the value of the activity and recommended changes, and next steps, if any.
- If the funds are not spent within the approved project period, they must be returned to the NCAR Directorate.
- All reports will be posted to the NCAR Diversity Committee URL.
FY12 NCAR Directorate Diversity Fund Proposal

Please enter your text into the form fields below, use your Tab and Shift+Tab keys to move forward or backward between the fields.

**Diversity Project title:** Enhancing Engagement of Underrepresented Groups in the Computational Geosciences by Integrating CISL Outreach and Training Efforts

**NCAR PI Name:** Dr. Richard D. Loft  **PI Email:** loft@ucar.edu

**Lab:** CISL  **Division/Program:** TDD

1) Provide a one paragraph executive summary of the project.

Computer modeling and data analysis are key elements of 21st century Earth System research. The opening of the new NCAR-Wyoming Supercomputing Center provides a unique opportunity to engage and excite underrepresented groups in this intellectual adventure. Here we propose to use $48,798 in NCAR Diversity funds over 24 months to do two things to help exploit this opportunity: 1) support the activities of a proposed new, half time Diversity Outreach Coordinator in CISL whose job will be to engage these target groups through outreach activities; and 2) reinforce the personal connections and awareness created by outreach visits with concrete regional training activities designed to attract targeted groups. The half time Diversity Outreach Coordinator is envisioned as a science and diversity evangelist whose duties will include a wide range of outreach activities, such as multi-day trips to targeted regions to advance the diversity goals of this proposal (see section 2 below). The Diversity Outreach Coordinator will also work on-line in diversity-related social media sites, particularly those in sought-after disciplines, and perform diversity related outreach at selected job-fairs, conferences, and workshops. The training activities in this proposal will be strategically located to reinforce and complement the Outreach Coordinator’s activities. They will be put on by experienced CISL training staff and their partners and targeted at venues in under-resourced regions, e.g. in Federally-designated Experimental Project to Stimulate Competitive Research (EPSCoR) states that can draw attendance from multiple nearby Minority Serving Institutions. Locations that we have identified include the South, Appalachia, the Dakotas, and Puerto Rico and the Caribbean region. Combined together, these diversity-focused outreach and training activities will synergistically promote awareness, interest, and trust through personal contact and concrete activities, and will integrate research interest and educational engagement of both students and their advisors. Importantly, these activities include Wyoming participation and support: this scope will serve to inform students and faculty in EPSCoR states of a much broader set of NWSC-related opportunities, including University of Wyoming education and training programs, such as the university’s Math REU. Finally, the proposal contains significant co-sponsorship totaling $108,540. The Diversity Outreach Coordinator salary is the largest cosponsored component, and is
funded from two sources: CISL and our colleagues at the University of Wyoming (see attached letter of support).

2) Describe the diversity objectives of this project and the plan for accomplishing the objectives.

The diversity objectives of this project are to:

- increase the diversity of NCAR’s employees, visitors, and interns;
- increase the diversity of the geoscience workforce via education and training;
- attract students and researchers from underrepresented groups to the computational geosciences through outreach;
- improve the visibility of NCAR, UCAR, the University of Wyoming, and NWSC, and related programs to underrepresented groups;
- make underrepresented groups aware of NCAR/UCAR’s mission and programs;
- inform underrepresented groups of the breadth of career opportunities in the geosciences;
- and, advertise various internship, graduate visitor, and post-doc programs.

3) Answer any of following questions that apply to your proposal:

Describe how your proposal will begin to establish or build toward a long-term scientific relationship(s) between NCAR and a US institution(s) serving underrepresented populations (hereinafter, the “Target Institution(s)”).

Combined together, the proposed outreach and training activities will tend to promote awareness, interest, and trust by forming personal contacts and concrete activities, and will serve to integrate research interest and educational engagement in the computational geosciences for both students and their advisors. We fully expect that this project and the related Diversity Outreach Coordinator position would be expanded to a permanent activity if it can be shown to be successful through diversity impact metrics.

Describe what efforts, if any, will be made to develop and strengthen NCAR’s partnership(s) with the faculty, students or career offices associated with the US Target Institution(s) and how these efforts will increase communication and recruitment opportunities for NCAR long-term; further describe why a long-term partnership with this institution would be beneficial to NCAR.

These efforts provide resources dedicated to strengthening communications and partnerships with universities. Because of the interdisciplinary nature of computational geoscience, our proposal will naturally tend to expand NCAR’s engagement beyond the atmospheric science departments at member universities to multiple departments and colleges: this will deepen and strengthen NCAR’s relationship with Target Universities, and beyond. The training courses will help advance geoscientific research at these universities and will increase opportunities with for research collaborations between NCAR and Target Universities. The Diversity Coordinator’s activities will also strengthen NCAR’s partnership with university career centers, adding important informational points of contact.
Describe any project work or PI commitments that are likely to increase knowledge regarding the geosciences in general and an interest in NCAR in particular among students at the US Target Institution(s) and how progress toward this long-term objective will be measured.

The integration of CISL training and outreach activities at Target Institutions, particularly those in under-developed EPSCoR areas, will increase awareness and interest in the computational geosciences within underrepresented groups and at the Target Institutions. Impact of these activities will be measured by tracking the numbers and demographic trends of inquiries at career web-portals, applicants to the SIParCS internship program, and attendee lists of training classes.

Describe any proposal activities or commitments that have been designed to promote awareness among students and faculty at the US Target Institution(s) regarding available academic opportunities and job opportunities in the geosciences and at NCAR and how progress toward this long-term objective will be measured.

The Diversity Coordinator is an outreach/communications position. The Diversity Outreach Coordinator will distribute job links and information regarding career opportunities at NCAR/UCAR during on-site visits. The Outreach Coordinator will also distribute information at diversity and professional conferences such as the Richard Tapia Conference, AMS, AGU, and Supercomputing (SC); and will participate in information exchanges via online social networks such as LinkedIn, Twitter, and Facebook. For example, the Outreach Coordinator would routinely contribute to the Anita Borg Institute for Women and Technology on LinkedIn. Impact of these activities will be measured by tracking the numbers and trends in institutional demographics of inquiries at career web-portals, applicants to the SIParCS internship program, and attendee of CISL training classes. The Coordinator’s duties will explicitly not include HR processes such as hiring, performance evaluation, or determining compensation.

4) Provide the names of co-investigators and/or collaborators (internal and external), including name and affiliation:

William Gern, Vice President of Research and Economic Research, University of Wyoming

5) Describe the expected program/activity outcomes:

The expected outcomes of the proposed diversity activities include:
- increased diversity of NCAR’s employees, visitors, and interns;
- increased diversity of the geoscience workforce via education and training;
- increased numbers of students and researchers from underrepresented groups entering the computational geosciences;
• increased visibility of NCAR, UCAR, the University of Wyoming, and NWSC, and related programs, by underrepresented groups;
• improved awareness by underrepresented groups of NCAR/UCAR’s mission and programs.

6) Define how the program/activity success will be measured:

Program activity levels will be measured in terms of numbers of individuals contacted during outreach visits, number of students from Target Universities trained, and number of diversity-related social network followers and friends. Success will be measured in terms of number of training workshop attendees and internship applicants and interns attracted from Target Institutions; and number of undergraduate; graduate and faculty visitors and staff hires from Target Institutions.

7) Identify the timeframe for the activity. Please include projected begin and end dates. The project must begin in the current fiscal year and may extend into the following fiscal year if required.

This will be a two-year activity. Upon award, we will begin the search for the Diversity Outreach Coordinator and plan to have the Outreach Coordinator onboard as a casual employee or as a contractor by March 2012. The Outreach Coordinator would thus work the last 6 months of FY12 and 12 months of FY13. Since the recruiting season begins with the fall semester, this timing will allow two complete recruiting seasons to be performed. The training classes will be performed throughout both years.

Proposal Budget Request

8) Complete and attach a budget using the Excel document, NCAR Diversity Funds Request Template available at https://www.ncar.ucar.edu/ncardir/internal/diversity/RFP.php

See attached budget template form: 2012 NCAR Diversity budget - CISL LOFT.xlsx

9) In the field below, please provide a brief budget justification, similar to the NSPIRES or Fastlane requirement and no more than two (2) paragraphs.

The budget is calculated based on a benefits rate of .507 and an indirect rate of .505, per the budget template.

The budget justification for this proposal requests support from the NCAR Diversity funds for four principle line items:

Diversity Outreach Coordinator Salary A salary survey of corporate and academic diversity Outreach Coordinator positions suggests that a full-time salary of $52,000 per
year with benefits is appropriate and competitive. Because of the seasonal nature of outreach, the position will likely require flexibility regarding hours worked per pay period. We believe that the work arrangement will likely to be highly dependent on realities of the candidate pool and the specific candidate selected. In the budget spreadsheet we have chosen to represent the position as a half time employee with full benefits, although a casual position, or even contractor arrangement at a higher salary but fewer – or no – benefits is possible. Through the two year period of performance of the proposal we expect the position to be online only the last 18 months due to the hiring lead-time required. We request in the budget that 0.125 FTE of this position be paid through NCAR Diversity funds in year two, with the rest coming from co-sponsorship from various sources (see co-sponsorship section below).

**Travel funds** The annual outreach travel costs for the Diversity Outreach Coordinator is calculated as 12 trips per year x $1500 per trip, or $18,000 per year, plus indirect costs. Of this total, $8,000 per year in travel funds, plus indirect costs, are requested from NCAR Diversity funds. These travel funds will be matched by $10,000 per year in travel funds, plus indirect costs, from CISL. The per-trip amount is calculated from the PI’s experience that each trip will involve visits to multiple institutions in a given region during a multi-day swing. A key element of our training class strategy will be enabling the attendance of students from Target Institutions by paying their travel costs. We have budgeted $1,000 per trainer for two trainers, and $500 per trip per attendee: our budgeted $7,000 per year, plus indirect costs, will allow two trainers and 10 students per year to attend the planned courses with travel support. Of this, we request $3,000 per year, plus indirect costs, from NCAR Diversity funds, with the rest co-sponsored.

**Regional training workshops** The budget assumes two, three to four day training workshops are held each year. Workshops will be held on topics such as data analysis, data mining techniques, and high-performance systems programming and use. The workshops will be coordinated with the Outreach Coordinator’s travel or be in regions previously visited by the Diversity Outreach Coordinator. CISL is already engaged in discussions with Kantave Greene, an instructor in the Jackson State University Meteorology Dept, and Dr. Wilbur Walters, the department chair, regarding a test run of the training concepts of this proposal. Specifically, Kantave will be teaching a "Computational Data Analysis and Visualization" course in the spring 2012 semester. This will be a required course for JSU sophomores in that program, but they hope to extend it to other departments in future semesters. The first half of the course will be C/Fortran, and the second half will cover analysis and visualization tools like NCL, IDL, Matlab, and GrADS. Kantave is not an expert in all of these tools, and has contacted NCAR to see if we can teach the NCL portion. Jackson State already has a Linux lab set up for this course, which holds 25-30 people. This training would occur in spring 2012. We would use the funds in this proposal to draw, through outreach, attendees to
this week of the course from other HBCU’s and regional universities. We are also in discussions with a regional data expert, Dr. Sara Graves at the University of Alabama Huntsville to create a partnership to expand our teaching of NCL-based data analysis and visualization tools to include data mining modules. Of course, if funded, the NCAR Diversity funds could be used to hold other similar training sessions in under-resources region across the country, drawing students from regional Target Institutions, as discussed previously.

**Materials and supplies** We request $500 per year of material and supplies funds to pay for informational flyers and educational materials required by the Outreach Coordinator’s outreach efforts on behalf of the laboratory. We request another $500 per year of materials and supplies to pay for training course supplies. CISL will co-sponsor in equivalent amounts.

**Co-sponsorship Summary** Our proposed outside co-sponsorship is $108,540: over two-to-one relative to the requested amount. The largest co-sponsorship component is the salary for the part time Diversity Outreach Coordinator. The PI, as TDD Director, will supply 0.125 FTE support in FY12 via TDD Directorate reserves. He has also obtained support for 0.125 FTE commitments in FY13 from the CISL Director (Al Kellie), via his Director’s Reserve. The University of Wyoming VP of Research and Economic Development, William Gern, has agreed to provide .125 FTE in FY12 and .125 FTE in FY13. As noted above, CISL is also co-sponsoring $15,000 per year for travel and material supply funds, plus indirect costs.

10) **Proposal Budget Total:** $48,798

*Co-sponsorship is preferred and evaluated in the review process. Please note that regular staff salary may not be counted toward co-sponsorship.*
Proposal Submission Approval

Diversity Project title: Enhancing Engagement of Underrepresented Groups in the Computational Geosciences by Integrating CISL Outreach and Training Efforts

NCAR PI Name: Dr. Richard D. Loft

Submitted by: [Signature] Date 7 Nov 2011

Approved by: [Signature] Date 7 Nov 2011
FY12 NCAR Diversity Proposal Budget Template

**NCAR Lab/Division:** CISL

**Project Title:** Enhancing Engagement of Underrepresentative Groups in the Computational Geosciences by Integrating CISL Outreach & Training Efforts

**NCAR PI(s):** Loft, Rich

**Period of Performance:** 12/1/2011 - 9/30/2013

**Note:** PoP is 12-24 months from award date. The project must begin in the current FY and may extend into the following FY.

### SALARIES & BENEFITS

<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Regular Salaries</th>
<th>Recruiter .5 FTE</th>
<th>TBD</th>
<th>$52,000</th>
<th>86%</th>
<th>25%</th>
<th>50%</th>
<th>$ -</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regular Benefits</td>
<td>@ 0.507</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Participants:**
- Recruiter

**Regular Salaries**
- Regular Salaries: 0 5,590 5,590 5,590 11,180 5,590 5,590 27,950 33,540
- Regular Benefits: 0 2,834 2,834 2,834 5,668 2,834 2,834 14,170 17,004

**Number of Days**
- Total Salaries: 0 5,590 5,590 5,590 11,180 5,590 5,590 27,950 33,540

**Note:** Regular staff salary may not be counted toward co-sponsorship.

### MATERIALS & SUPPLIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training materials</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Outreach materials</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

**SUBTOTAL**
- 1,000 1,000 0 1,000 1,000 0 2,000 2,000 4,000

### PURCHASED SERVICES

<table>
<thead>
<tr>
<th>Item</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**SUBTOTAL**
- 0 0 0 0 0 0 0

### TRAVEL

<table>
<thead>
<tr>
<th>Item</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>8,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Training Workshops</td>
<td>3,000</td>
<td>4,000</td>
</tr>
</tbody>
</table>

**SUBTOTAL**
- 11,000 14,000 0 11,000 14,000 0 22,000 28,000 50,000

### NCAR INDIRECT COSTS (IC) @ 0.505

**SUBTOTAL Modified Total Direct Costs (MTDC)**
- 12,000 23,424 8,424 20,424 31,848 8,424 32,424 72,120 104,544

### TOTAL MTDC + Applied IC

**TOTAL Funding**
- 18,060 35,253 12,678 30,738 47,931 12,678 48,798 108,540 157,338

**TOTAL Funding**
- 18,060 35,253 12,678 30,738 47,931 12,678 48,798 108,540 157,338
Nov. 7, 2011

Dr. Rick Loft
Director of Technology Development
Computational and Information Systems laboratory
National Center for Atmospheric Research
Boulder, Colorado

Dear Rich:

This letter verifies the intent of the University of Wyoming to become involved in the hiring of specific support personnel (as of yet untitled) to support the diversity and educational missions of the NCAR-Wyoming Supercomputing Center. We have been asked to provide 25% of the funding necessary for this position and will do so.

Such a position will be of great assistance to the NWSC, NCAR and UW as we develop a strong cadre of education, outreach and diversity programs.

Thank you for asking us to participate

William A. Gern
Vice President for Research and Economic Development
University of Wyoming

Cc: Bryan Shader
    Janice Kauvar