FY12 NCAR Directorate Diversity Fund Proposal

**Diversity Project title:**  Teaching at University of New Mexico, a Hispanic Serving Institution, and collaborative research with Indian Health Services on climate and health issues facing the Navajo Nation

**NCAR PI Name:** Chris Davis  **PI Email:** cdavis@ucar.edu

**Lab:** DIR  **Division/Program:** ASP

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

*In the present proposal, Sean Moore, an NCAR/CDC postdoctoral fellow, will teach one semester at University of New Mexico at Albuquerque (UNM’s main campus). The plan is for him to teach an interdisciplinary 300 level class, “Global Climate Change” in the fall of 2012. During his stay at UNM, Sean will receive salary and a living allowance (to offset his ongoing expenses in Boulder). In addition to teaching a course at UNM, Sean will collaborate with Indian Health Services and the New Mexico Department of Health to research environmental health issues on the Navajo reservation in Arizona and New Mexico. These agencies have previously worked with the U.S. Centers for Disease Control and Prevention (CDC) in Fort Collins to develop spatial risk models of bubonic plague on the Navajo reservation and throughout the southwestern United States. The goal of the proposed research is to use climate and other environmental data to improve the understanding of other environmental health concerns, including other infectious diseases such as Hantavirus, on the reservation. The purpose of this proposed project is for Sean to acquire some teaching experience before entering a faculty position, to augment the teaching effort at University of New Mexico, to begin collaboration between UNM and NCAR, and to engage the students at University of New Mexico and local tribal colleges in Sean and NCAR’s research.*

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

*The University of New Mexico is a Hispanic Serving Institution and therefore this effort is viewed as opening the door to collaborations that will engage minority students in NCAR research and advance their education. Previously, ASP postdocs have taught courses at Howard and Hampton Universities and helped increase the collaboration between NCAR and these universities by having graduate students visit the ASP postdoc(s). We envision a similar possible result. We emphasize the value of the interaction Sean will have with the students while he is at UNM, consistent with the outcome of previous postdoc teaching visits Sean will also work with Indian Health Services to involve students from Dine College (the local Navajo tribal college) or other nearby universities, including the University of New Mexico, in his research project. This will include a visit to Dine College to talk about the research project and the link between climate and health issues.*
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)”).

As mentioned in (2), the proposed visit will establish a scientific relation where none exists currently between NCAR and a Hispanic Serving Institution. Students at UNM will become aware of the research at NCAR and Sean’s visit would dramatically increase the chances of one or more UNM students visiting NCAR. The project would also involve Navajo students from Dine College and raise awareness of NCAR in the Native American community.

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.

As mentioned above, the results of a previous effort similar to the current proposed effort were a graduate student visit to NCAR and the interaction of the postdoctoral instructor with the students (and faculty) for a full semester. We anticipate a similar result here.

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 purpose of the visit is to increase knowledge in the geosciences through teaching and mentoring students at the University of New Mexico and neighboring tribal colleges. Dr. Moore will give one or more seminars on his work while he is visiting UNM. He will work with the UNM faculty to promote students’ interest in NCAR and potential student visits to NCAR. Visits may be funded through the ASP Graduate Visitor Program (GVP) or the SOARS program in the future (not part of the current proposal). We also anticipate inviting one or two NCAR postdocs as guest lecturers during the semester (expenses not included in this proposal). In addition to providing their expert knowledge on certain course topics, the guest lecturers will also help introduce the students to the breadth of research occurring at NCAR.

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.

Dr. Moore will represent NCAR and by his presence and interaction with students will increase their knowledge of NCAR. He will also share his research experience which augments that of the UNM faculty. Finally, he will share his perspectives as a relatively recent Ph. D. recipient. Progress may be measured by future applications of UNM or tribal college students to UCAR/NCAR visitor programs, future visits of UNM faculty to NCAR, or visits of NCAR staff to UNM.
4) Provide the names of co-investigators and/or collaborators (internal and external), including name and affiliation:

Sean Moore, RAL (NCAR/CDC postdoctoral fellow)
Adrian Brearley, Chair of UNM Dept. of Earth and Planetary Sciences
Tom Stephens and James Cheek, Indian Health Services officers

5) Describe the expected program/activity outcomes:

Dr. Moore will teach a full semester at UNM. This will provide him with valuable experience about teaching for future job considerations. He will engage the students and faculty in his research interests and this may lead to student (or faculty) visits to NCAR in the future. He will also work with Indian Health Services to understand how climate and climate change affects health issues on the Navajo reservation.

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

Success will be measured first by Dr. Moore completing his teaching semester. Second it will be measured by feedback from Dr. Moore and Dr. Brearley about his experience and feedback from students. Third, there will be continued interactions with UNM, either further teaching by postdocs, research collaboration or visits of UNM graduate students to NCAR through, for instance, the ASP Graduate Visitor Program. It should be noted that the lasting connections to UNM will obviously be measured long after the project completes. We also anticipate that the research with Indian Health Services will results in several coauthored research publications.

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.

The project will begin with a spring 2012 visit to New Mexico by Dr. Moore (start date of 1 April, 2012). It will end on December 31, 2012 after the conclusion of the fall semester.

Teaching Plan

352 Global Climate Change
Fall 2012

Description: Comparison of natural and anthropogenic causes of large-scale climate change and factors influencing development of mitigation and adaptation policies. Emphasis on the potential impacts of climate change, including implications for agriculture, water resources, and environmental and human health.
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

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 requested for this activity is to cover salary, benefits, and overhead for Sean’s time at UNM (4 months). All Travel costs will be supported by the ASP Diversity Fund or other ASP funds. The budget has to parts:
1. We are seeking permission to use the funds allocated to ASP for Alexandra Jahn to go to Howard to teach. That activity fell through on Howard’s end. This was for two months of Alex’s salary/benefits/overhead.
2. We are seeking with this proposal two additional months of salary to add with the previous award to cover Sean’s entire four-month semester at UNM.

10) Proposal Budget Total: $20,310

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: Teaching at University of New Mexico, an Hispanic Serving Institution, and collaborative research with Indian Health Services on climate and health issues facing the Navajo Nation

NCAR PI Name: Chris Davis

Submitted by: [Signature] Date 11/03/2011

PI Signature

Approved by: [Signature] Date 11/03/2011

NCAR Associate Director(s) Signature(s) Signature
## FY12 NCAR Diversity Proposal Budget Template

**NCAR Lab/Division:** ASP  
**Project Title:** Teaching at the University of New Mexico - Albuquerque  
**NCAR PI(s):** Chris Davis and Sean Moore  
**Period of Performance:** 8/1/12 - 12/31/12

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

### Part I: Diversity

#### Lab Diversity Funds

<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Annual Salary</th>
<th>Work Time</th>
<th>Spon NSF</th>
<th>Spon NSF -</th>
<th>CSC Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postdoctoral Fellow II Sean Moore</td>
<td>$59,700</td>
<td>90%</td>
<td>$8,955</td>
<td>8,775</td>
<td>17,730</td>
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<tr>
<td><strong>SUBTOTAL Regular Salaries</strong></td>
<td></td>
<td></td>
<td>8,955</td>
<td>0</td>
<td>17,730</td>
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</tbody>
</table>

**Regular Benefits @ 0.507**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.507</td>
<td>4,540</td>
</tr>
</tbody>
</table>

**MATERIALS & SUPPLIES**

**SUBTOTAL**

| 0 | 0 | 0 | 0 |

**PURCHASED SERVICES**

**SUBTOTAL**

| 0 | 0 | 0 | 0 |

**TRAVEL**

- Preliminary Trip: 0 1,000 0 1,000
- Relocation to NM/Living Perdiem: 0 6,750 0 6,750
- Trip back to NCAR mid-semester: 0 750 0 750
- Guest Lecturers from NCAR (3): 0 3,000 0 3,000
- Travel to/from Navajo Reservation: 0 1,500 0 1,500

**SUBTOTAL**

| 0 | 13,000 | 0 | 13,000 |

**SUBTOTAL Modified Total Direct Costs (MTDC)**

| 13,495 | 13,000 | 13,224 | 39,719 |

**NCAR INDIRECT COSTS (IC) @ 0.505**

| 6,815 | 6,565 | 6,678 | 20,058 |

**MTDC Items that include IC**

**TOTAL MTDC + Applied IC**

| 20,310 | 19,565 | 19,902 | 59,777 |

**Exclusions from MTDC**

**Non-NCAR PARTICIPANT SUPPORT COSTS**

**TOTAL Funding**

| 20,310 | 19,565 | 19,902 | 59,777 |

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**“Other Funds”** refers to the Diversity Proposal awarded in FY11 to ASP for Alexandra Jahn to teach for two months at Howard University. That appointment fell through on Howard’s end. With the Diversity Committee’s approval, we propose to apply those funds towards Sean’s four month teaching appointment. Any shortfalls due to raises and rate changes will be made up by ASP.