NSF EPSCoR Water Workshop
Vermont EPSCoR
November 2008 Workshop Evaluation Report
April 10, 2009

In November 2008, Vermont EPSCoR hosted a workshop entitled *Water Dynamics.* The workshop brought together 149 scientists across all EPSCoR jurisdictions to share information, explore collaborations and learn about opportunities for research on water through NSF. Vermont EPSCoR anticipated achieving the following outcomes through the workshop:

- Increased collaborations among NSF EPSCoR jurisdictions
- Identification of opportunities for water research funding across the directorates at NSF
- Creation of resources for the Water Research Community such as templates to succinctly describe research, television episode highlighting the workshop
- Follow-up workshop hosted by Alaska EPSCoR

In large part these outcomes have been achieved. Alaska EPSCoR will host the follow-up workshop, *Social Dynamics on Understanding the Human-Hydrologic System* in May 2009. In addition, Vermont EPSCoR produced an episode in its public television series *Emerging Science* based on the *Water Dynamics* workshop, including interviews with scientists from around the country attending the workshop. The episode aired on Vermont Public Television February 24, 2009 and is available on-line for viewing at anytime. In addition, EPSCoR hosts a website which provides all the posters and presentations for viewing. Finally, there is a hardcopy book of all the presentation abstracts.

In order to assess collaborations, as well as the quality of the workshop, participants were asked to complete an evaluation at the end of the three day program. The following report summarizes results from the 44 responses received, representing 30% of the participants.

Workshop Content

The first set of evaluation questions asked participants to rate the overall content of the workshop. The vast majority of participants highly rated the workshop content (see Table 1), particularly the workshop organization, level of interest, and provision of new knowledge. About 25% of participants were less positive about the amount of information and pace of the workshop. Of those who didn't like the workshop pace, half felt it was too slow and half felt it was too fast.

Table 1: Participants' Ratings of Workshop Content

Overall Content	Mean	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
The workshop was well organized.	3.67	0	0	14	29
The workshop was interesting.	3.63	0	2	12	29
The workshop provided me with new knowledge about the subject matter.	3.60	0	0	17	26
Announcements for this conference accurately reflected the material covered.	3.49	0	1	16	18
Workshop objectives were clearly stated at the start of the session.	3.47	0	3	17	23
The amount of information presented felt comfortable.	3.16	2	9	12	20
The workshop pace was just right.	3.15	0	11	13	17
This workshop taught me valuable skills that I'll be able to use.	3.05	0	9	23	11

Workshop Structure

Next, participants were asked a set of questions about the way in which the workshop was structured. Again, ratings were generally quite high, particularly with regard to the presentations from NSF visitors (see Table 2). About 20% of participants did *not* feel there was "ample opportunity to ask questions."

Table 2: Participants' Rating of Workshop Structure

Workshop Structure	Mean	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
The presentations from NSF visitors were helpful	3.56	1	0	16	26
The theme format with co-chairs and panelists was useful	3.40	0	2	21	19
The breakout session with individual program officers were useful	3.37	0	3	18	17
Most of my questions were answered.	3.35	0	2	22	16
The length of the workshop was about right.	3.20	0	6	21	14
The format of the workshop was appropriate for the content.	3.19	1	5	21	15
There was ample opportunity to ask questions.	3.14	0	9	20	15

Supporting Materials

The evaluation survey asked two questions about supporting materials (see Table 3). Most often participants felt the materials were helpful and effective, and would be useful for reference after the conference.

Table 3: Participants' Rating of Workshop Supporting Materials

Supporting Materials	Mean	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
The printed materials were helpful and effective.	3.33	1	2	22	18
I will be able to use these materials for reference after this conference.	3.15	1	5	22	13

Overall Experience

The final set of ratings focused on the overall experience of the conference (see Table 4). Ratings were quite high; in particular participants felt the workshop was a valuable use of time.

Table 4: Participants' Rating of Overall Workshop Experience

Overall Experience	Mean	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
Overall, the workshop was a valuable use of my time.	3.55	0	3	14	27
I know how to follow up if I have questions or problems.	3.48	0	1	21	22
I would recommend this workshop to others.	3.33	0	5	19	19
My competence in a particular subject/skill area has increased as a result of this conference.	3.26	0	7	18	18

Workshop Strengths and Needed Improvements

Survey respondents answered four open-ended questions asking for their assessment of the workshop. These questions included:

- *I would like to see more of…*
- *I would have liked to see less of…*
- *The most useful thing I learned was…*
- *Themes or presentations of most interest…*

About 60% of the survey respondents provided answers to these open ended questions.

Participants most frequently cited learning about NSF and EPSCoR activities and opportunities (n=8) as the "most useful." Next, respondents said they found networking most useful: "new people, new opportunities," "networking ideas across disciplines" (n=6). Three respondents found the complex system approach and modeling useful and two cited learning about CUHASI as useful. Other comments included: learning that "the agriculture industry is an underexplored source of stakeholder support and funding;" "ideas and discussion about bringing social scientist onboard;" and, four comments about specific content (i.e., spatial statistics, geostatic, fiber optic temperature sensing, and, nutrient levels in Montana Big Sky).

Three of the four workshop themes were equally interesting to respondents: seven respondents named Theme 1 (*Change Dynamics*), seven respondents Theme 4 (*Water and Society*) and, six choose Theme 2 (*Water Research Tools*) as most interesting. Only two respondents found Theme 3 (*Implications for Management*) most interesting. Four respondents said they thought presentations about NSF of most interest.

Networking was a key concern for respondents in their assessment of the workshop strengths and areas in need of improvement. A key theme emerging from the responses to these two questions was the desire for more time for discussion among participants. Eleven respondents said they wanted to see more time for networking and discussion; and, ten respondents wanted less time for talks, especially leaving meal-time free for networking. Five similar comments were made in the section asking respondents for "any additional comments." Again, participants wanted shorter talks and longer breaks to allow for more interaction. A sampling of these comments includes:

> *Time to talk off-line, in breaks and over lunch/dinner*
> *More unstructured time for networking during the day*
> *More breakout sessions and opportunities to 1-to-1 with other researchers*
> *Too many talks during lunch/dinner that cut into valuable networking time*
> *Too many lunch/dinner time talks and need more breaks for networking*
> *Less time sitting and listening to talks*

Seven respondents wanted to see changes in the poster session. They suggested holding the session in the middle of the day rather than at night, with more scheduled time and structure to promote networking.

Seven respondents had concerns about speakers. Some felt some speakers were "not effective;" others noted that presentations were too long.

Three respondents asked for less discussion of modeling and more "diverse research tools." Indeed, five respondents wanted to see more discussion of water research tools, including "description of cyberinfrastructure" and "analytical methods for multi-scale data in space/time." One respondent noted that presentations on getting models to actual managers provided "GREAT ideas for examples to be used in my teaching."

Four respondents asked for more discussion of EPSCoR funding, including strategies for obtaining and continuing to receive funding.

There were a few specific suggestions for improving the workshop, including:

> *An introductory presentation for every theme that included a primer of vocabulary and concepts for those in the audience who were not specialists in the theme*
>
> *A directory of all participants would be a useful follow-up*
>
> *A database with keywords from each participant to help identify potential collaborators*

Conclusion

Overall, participants rated the workshop as providing useful content in a well structured and organized format. A key outcome anticipated from the workshop was increased collaboration. Indeed, participants highly valued the opportunity to network and called for more time to do so. Future surveys will explore whether or not these contacts have led to increased collaboration. In addition, participants often said learning about NSF and EPSCoR funding opportunities was especially helpful aspect of the workshop.

Additional comments by participants highlight the workshop's overall success:

> *Great conference and put together very well. One of the best I have been to.*
>
> *Thank you for organizing a great and relevant workshop. I was glad to see that 34% of the speakers were women/underrepresented groups. This is much better than recent EPSCoR workshops/meetings I have attended.*
>
> *The workshop has been very helpful to me in knowing about the research being conducted in various EPSCoR states in the areas of water and climate. It has helped me in networking and collaborating with other researchers.*