The evaluation of the 10 workshops was accomplished through end-of-workshop surveys. Summary data tables and verbatim comments to open-ended questions are available as an Excel file.

This report summarizes the end of workshop evaluations received as of June 16, 2010 for the Building Strong Geoscience Department visiting workshops.

**End-of-Workshop Evaluation**

107 participants completed the end-of-workshop survey. Overall participants were very satisfied with the workshop. On a scale of 1 to 10 (10=completely satisfied and 1=very dissatisfied), most indicated high satisfaction with 74 respondents indicating a satisfaction level of 9 or 10 and an average satisfaction level of 8.7 (see graph below). There was one rating of “2” and two ratings of “1” where it appeared the scale might have been reversed as the write-in comments and other scaled questions indicated high satisfaction. One rating of “1” appears to be genuine, as the participant had generally negative responses to the survey questions.

![Overall Satisfaction Rating](image)

Comments:

“I go into tomorrow with a renewed enthusiasm for making us a better department and to make us an integral part of the University and community.”

“Bringing the workshop to the department is a highly valuable vehicle for engaging the entire department, and I really can’t say enough about this model. Kudos to the Building Strong Geoscience Program...”
As of June 16, 2010, **107 participants** submitted online end of workshop evaluations. The breakdown of responses by workshop is shown in Table 1.

**Table 1. Number of responses by workshop**

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Pennsylvania</td>
<td>4</td>
</tr>
<tr>
<td>San Francisco State University</td>
<td>7</td>
</tr>
<tr>
<td>California State University at Bakersfield</td>
<td>3</td>
</tr>
<tr>
<td>Humboldt State University</td>
<td>8</td>
</tr>
<tr>
<td>Earlham College</td>
<td>2</td>
</tr>
<tr>
<td>Juniata College</td>
<td>4</td>
</tr>
<tr>
<td>University of Nevada, Las Vegas</td>
<td>18</td>
</tr>
<tr>
<td>University of Puerto Rico</td>
<td>11</td>
</tr>
<tr>
<td>Utah Valley State University</td>
<td>9</td>
</tr>
<tr>
<td>University of Calgary</td>
<td>36</td>
</tr>
</tbody>
</table>

The end of workshop survey included 10 questions with a 4-point Likert Scale (1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Disagree) as well as Not applicable. Table 2 summarizes the frequency of responses for all workshops. Statements with the highest degree of disagreement were:

- “I gained new understanding of how other departments are managing challenges similar to those out department faces.” (19 of 107 disagreed)
- “The pre-workshop communications gave us the information we needed to learn about and prepare for the workshop” (13 of 107 disagreed)
- “I gained new insights into how to identify and collect the data we need to determine if our program is working.” (10 of 107 disagreed)
- “Our department was successful in developing a plan that will help us move forward” (8 of 107 disagreed)

**Table 2. Extent to which participants agreed with following statements.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree or Strongly Disagree</th>
<th>Agree or Strongly Agree</th>
<th>Not applicable or no response</th>
</tr>
</thead>
<tbody>
<tr>
<td>The pre-workshop communications gave us the information we needed to</td>
<td>13 respondents (2 SF State, 1 U of Penn, 1 CSU Bakersfield, 1 UPR, 3 UNLV, 5 Calgary)</td>
<td>88 respondents</td>
<td>14 respondents</td>
</tr>
<tr>
<td>I gained new understanding of how</td>
<td>19 respondents (UPR, UNLV, 17</td>
<td>85 respondents</td>
<td>3 respondents</td>
</tr>
<tr>
<td>Statement</td>
<td>Calgary</td>
<td>96 respondents</td>
<td>6 respondents</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---------</td>
<td>----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Other departments are managing challenges similar to those our department faces.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I acquired a better understanding of the resources available on <a href="http://serc.carleton.edu">http://serc.carleton.edu</a></td>
<td>1 respondent (Calgary)</td>
<td>96 respondents</td>
<td>6 respondents</td>
</tr>
<tr>
<td>I gained new insights into how to identify and collect the data we need to determine if our program is working.</td>
<td>10 respondents (1 SF State, 1 U of Penn, 2 UNLV, 6 Calgary)</td>
<td>92 respondents</td>
<td>5 respondents</td>
</tr>
<tr>
<td>Our department was successful in developing a plan that will help us move forward.</td>
<td>8 respondents (1 U of Penn, 2 CSUB, 2 UNLV, 2 UPR, 1 Calgary)</td>
<td>93 respondents</td>
<td>6 respondents</td>
</tr>
<tr>
<td>I anticipate the action plan for our department will be successfully implemented.</td>
<td>5 respondents (1 U of Penn, 1 UPR, 1 UNLV, 2 Calgary)</td>
<td>96 respondents</td>
<td>6 respondents</td>
</tr>
<tr>
<td>Action planning helped us to reflect on what we learned and apply it to our department.</td>
<td>5 respondents (1 U Penn, 1 UNLV, 3 Calgary)</td>
<td>96 respondents</td>
<td>6 respondents</td>
</tr>
<tr>
<td>The on-site format of the workshop was useful in adapting the topics to the specific context of our department.</td>
<td>1 respondent (Calgary)</td>
<td>103 respondents</td>
<td>3 respondents</td>
</tr>
<tr>
<td>The on-site format of the workshop was useful in engaging the entire department in a plan to strengthen our program.</td>
<td>2 respondents (1 UPR, 1 UNLV)</td>
<td>105 respondents</td>
<td>0 respondents</td>
</tr>
<tr>
<td>Overall, the workshop sessions were well facilitated.</td>
<td>1 respondents (UNLV)</td>
<td>106 respondents</td>
<td>0 respondents</td>
</tr>
</tbody>
</table>
Themes on overall write-in comments:

- Agenda, at least, should be sent to entire department in advance; for the most part, pre-workshop communications appear to have been between only the leaders and chair, so that department members had no idea what to expect until the workshop began.
- Need pre-workshop communications to go to all participants with adequate time for items that require preparation.
- Essential that facilitators know about specifics situation of department; not clear from comments whether this was a need or a strength (2 participants).
- Onsite nature very helpful.
- Other: more activities and less PowerPoint.
- Heard little about other departments.

Comments:

“... more communication ahead of time and a written document with details about exactly what would take place during the workshop that could have been disseminated to all faculty members (rather than just links to the SERC website) would have helped the department be better prepared to conduct a productive workshop.”

“...I rate the experience and the "captive audience requirement" as much more useful than sending a representative to a workshop.”

Shifts in thinking

Question: We are particularly interested in whether and how your visiting workshop experience has made a difference in how you think about or approach geoscience education at your university. Please describe any shifts you see within your department.

Of the participants who responded, themes included:

- More united, flexible, and engaged department; reached departmental consensus;
- Affirmed commitment to geosciences education;
- Departmental commitment to recruitment, assessment, &/or curricular changes;
- Stronger vision for the future and an action plan for implementing that vision; and
- Better understanding of how their departments’ issues relate to national scene.

Comments:

“we have more consensus on the importance of assessment and recruiting and an idea of what action plans are.”

“...the ability (facilitators) to have the dept. members interact with one another in a fashion we would not have done on our own has led to increased awareness of how I might change my teaching style.”
“We emerged from the workshop feeling confident about what we are doing and the reasons we have adopted the particular curricular structure we are in.”

Top one or two things learned
There was a wide range of items that participants identified as the top things learned in the workshop. These include:

- Restructuring curriculum (matrix approach, skills/competencies) (19)
- SWOT analysis (19)
- Rethinking program and learning objectives (17)
- Importance of planning / better understanding of strategic planning (11)
- Assessment ideas (8)
- Student recruitment ideas (6)
- Need to improve department image or communications with public (website, singing our own praises) (5)
- Importance of engaging alumni (2)
- How best to approach administration (2)
- Need to work within system (2)
- Realization that today’s undergrads are different than faculty were – so important to figure out who “they” are so education can be better delivered to them (2)
- Importance of field school (2)
- Concrete ideas to carry out plan
- Ways of identifying important issues
- Techniques for planning for future activities
- Articulating collective vision
- SERC website as resource
- How much future employment affects students’ choices of majors and how little they understand about geosciences careers
- How students’ cultural background affects their perception of geosciences as a career option

Most valuable
Once again for the participants who chose to respond to this question, there were a range of “most valuable” things. The team approach of “just getting everyone around a table” with a focus on team planning and problem-solving was the most prevalent comment.

- Team approach (24)
- Having broad participation and an external facilitator (13)
- Matrix approach to curriculum analysis/design (11)
- Action planning (9)
- Learning more about how my colleagues think (9)
- Info on how other departments approach similar situations (7)
- SWOT analysis (6)
- How well prepared and well versed facilitators were (4)
- Workshop presenters meeting with students and reporting back (3)
- How multi-faceted a department is and difficulties in finding common ground (3)
- Break out discussions (3)
- Activity for listing goals, values (3)
• Dealing with FTE (enrollment) issues (2)
• SERC website (2)
• The ideal student letter exercise to define our goals/learning outcomes (2)
• Looking at the bigger picture (2)
• Reinforcing positive attitudes
• On being more positive about administration (Randy's talk)
• Assessment exercise
• Field trip
• Workload discussion
• Recognizing the value of gen ed courses
• New ideas for marketing dept

**Things you would not have included**
There were very few respondents that listed items that they would not have included.
Their suggestions:
• Fewer case stories (2)
• Shorter introduction (2)
• Matrix exercise (our dept had already done it) (2)
• Fewer PowerPoints
• Less lecture, more exercises
• Assessment piece was less important given our immediate concerns regarding increasing our value to our institution
• SWOT analysis
• History of curriculum
• Bookends activity
• Group picture

**Things you would improve**
• More time (in general, for discussions, for work in situ) (9)
• More examples from other institutions (5)
• Some kind of follow up mechanism to make them accountable to their action plan (3)
• More explanation of exercises (3)
• Pre-workshop readings (2)
• More time to work on action plans (2)
• Pre-workshop assignment for all faculty which allows for review of Dept handouts & SERC website (2)
• Preparing matrix in advance (listing courses taught)
• Setting to allow entire department participation (U of Penn.)
• More breaks or shorter
• Faculty discussion sooner in process
• Reading material prior to workshop
• Tweak the action planning worksheet. Comments:
  o I wasn’t prepared to fill it out based on the prior workshop activities. It was not clear to me. The concepts were new.
The Action Planning Worksheet has many questions that are poorly worded. For example “Are the grad aspirations met by the current curriculum?” It was not clear to our group whether this question applied to the aspirations of our graduates or to the aspirations of our faculty toward our students.

- Have a working lunch
- Would like more info about outreach to employers
- Have leaders get student perspective
- Specific observations of our weaknesses (from an outside expert) would be helpful to us
- Specific techniques for teaching large classes
- More info on effective pedagogy
- Bigger type on slides
- Address balance between teaching and research
- Less emphasis on employment/more on grad school
- “Book End activity platitude-heavy”
- State constraints on program development (administrative for example)
- More guidance during breakouts

Want to find on the website

- Case studies from other depts. (11)
- Specific examples of what other depts. are doing (8)
- Assessment tools (7)
- Not familiar with the site (7)
- Follow-up reports on how other depts. implemented action plans (4)
- Summary of programs visited and things learned (3)
- Ideas on how to collect and analyze assessment data (3)
- Action planning tools (2)
- Ideas on how to increase FTEs (2)
- Course resources
- Employer and alumni relations
- Geology skills tests
- Pod casts
- PowerPoints presentations from the workshop
- Ideas on student recruitment
- Enrollment stats, references about recruitment