

ANNUAL IN-PERSON MEETING OF THE NHERI USER FORUM COMMITTEE

SAN ANTONIO, TEXAS

June 6, 2018

Meeting Minutes

Attendance: Russell Green, Elaina Sutley, Stephanie Smallegan, Jim Malley, David Johnson, Antonio Bobet. Liesel Ritchie and Kevin Johnson joined remotely for the Item 1 discussion on the survey.

Meeting started at 9:10am. Delayed after technical difficulties in the room.

Item 1: User Satisfaction Survey

Note: The list of survey questions is provided as an attachment at the end of these minutes for easy reference to questions.

Liesel presented the preliminary survey results using the PowerPoint she, Kevin, and the subcommittee prepared.

Liesel emphasized an advantage of this year's survey was the ability to build from last year's survey. Both quantitative and qualitative questions were asked. The survey was distributed online through Qualtrics.

42 to 69 respondents out of approximately 2,000 users (where these 2,000 are those who have accounts with DesignSafe). The UF agreed that this is a low response rate, but on par with last year. The difference between 42 and 69 is due to how the survey tracked people and the ability to skip questions based on the respondent's experience.

Most survey participants (48%) do not plan to submit proposals. The UF discussed this finding. For next year's survey, when people answer "no" to writing proposals, we will consider adding a time component. "Do you plan to write a proposal in the next year? Ever?"

Q5: provides very interesting findings. Each facility is focused on one area: geotechnical, earthquake structures, earthquake, wind, tsunami, for example. Only 7 respondents are using more than one facility. Do we think the participants recognized DesignSafe as a 'facility'? Q6 provided clarity, since proposals are not written *for* DesignSafe. There is still a small amount of ambiguity with these questions since proposers do put that they will store their data on DesignSafe, which could potentially be confused in this question. The committee decided this wasn't very likely, but possible.

Q8 quantitative data on availability of comprehensive information on NHERI Facilities and Resources has 21% disagree, and 31% neutral. The UF discussed, it is good that we can inform the facilities that users aren't finding information readily accessible, and the qualitative comments provide concrete examples of areas for improvement. The large neutral percentages are a good place to focus attention on moving users into agree and strongly agree categories.

Q11 provides positive conclusions that experimental facility staff is doing a satisfactory job in providing useful feedback to users. The UF discussed this question: do the numbers here match up with the number of respondents that plan to submit proposals. 33 respondents said they would not present

proposals. Here, only 11 out of 41 indicated 'Not applicable/Cannot rate'. The detailed analysis will need to double check the reliability of numbers throughout.

Q9 qualitative responses provide context to the neutral and negative responses from Q8.

The UF discussed the qualitative comments shared in Q24: do we want to share direct quotes to the facilities, to the NSF, in the report? The UF definitely wants to convey the message learned from the survey to the facilities. And we want the facilities to act on the comments to make improvements as needed. Publishing the comments may not be the most effective approach because not all negative comments are actionable, and therefore not exactly helpful. The UF noted that the comments are biased to the negative. A suggestion was offered to have a liaison for each facility to watch and measure whether and how the facilities are acting on the feedback. If not, then we could follow up with feedback to the NSF.

Liesel and Kevin received a list of names to do follow up interviews with. Only one interview has been conducted, and only two others responded to schedule an interview in the future (there were scheduling problems up to this point). This is not enough to draw any conclusions from. For now, Liesel and Kevin are not planning to interview those two since this would not provide a powerful enough sample.

Q28 and Q30 are interesting and provide good feedback, especially since many of these items are already available. The UF determined that people find these items and actions important, and so the information and accessibility needs improving.

Q33 provided interesting feedback that 41% of n=49 were not aware of the Science Plan.

Q34 is useful, and should be shared with the Science Plan Committee. Are there other things the Science Plan was intended to do that it isn't doing or that we didn't ask about?

Overall the UF strongly agreed that conducting the survey internally far exceeded the quality of the survey, and quality of feedback and analysis gained as compared to outsourcing in year 1.

Action item: Liesel and Kevin have started on the report. They will update the UF next week with an expected timeline for completion.

Once the report is prepared, and the results are analyzed in detail, the UF will present the findings to the NCO and seek their advice on what we should share with the NSF, facilities, etc. (e.g., do we want to include comments in the report, do we want to only pass comments onto the facilities, etc.?).

Item 2: Meet with NHERI PIs

Forrest Masters (FU), Arindam Chowdhury (FIU), and Jim Ricles (Lehigh) attended the meeting.

Forrest discussed a hidden benefit of NHERI: how well a project is executed in the lab is only a portion of NHERI success. NHERI has done brought together disciplinary groups, and created a community of natural hazards researchers in geotechnical, structural, coastal, earthquake, wind, etc. and is creating lasting collaborations and relationships. Is there a way for the UF to help capture this important and long-lasting outcome?

One of the process goals of the 10 big ideas is the Convergence Goal: NHERI corresponds well with this goal. This goal mentions Science of Team Science; Psychology Safety is a part of team science.

Survey questions could expand to include something like, "Are you more likely to adopt multi-disciplinary and multi-hazard approaches because of NHERI relative to if NHERI did not exist?"

The survey could also ask respondents how many disciplines are involved in their NHERI proposals.

Jim R discussed available funding as a major barrier for the facilities to be utilized to the fullest extent. When PIs get to the site, they are very frugal because their budgetary limits, but that hinders the research.

Another issue is that the NSF program doesn't require the use of NHERI facilities in funding projects. NHERI users are competing for resources across people outside of natural hazards engineering too.

The suggestion to advertise more opportunities for payloads and project expansions, \$100,000 awards for a new PI and their student to join an existing project, as being very beneficial.

The group discussed (1) the number of users, (2) how the UF administered the survey, (3) where the UF got those email addresses, and (4) why only 1 of the 33 PIs responded to the follow-up interview. For (2), the group also discussed how the emails were sent out. This may make a difference in response rate. The UF could also reach out to those they know, and leverage those relationships to get a higher response rate. For (4), it was concluded that people are busy, and probably do not understand the value in providing their feedback when their time is already stretched.

NHERI is not the only distributed network funded by NSF. It was suggested that the UF could look at those other networks to see how they measure users, survey users, and operate.

Item 3: Discussion of Officer and Member Election and Rollover

The UF discussed adding new members, rotating members off, rotating officer positions, and how this aligned with the NHERI timeline. The UF agreed it is important with any change that a balance is maintained across (1) structures and geotech; (2) hazards: coastal, earthquake, wind; (3) tenure: junior and senior faculty; (4) gender; (5) geographically: east coast, west coast, Midwest, southeast; (6) industry and academia. The UF has some members from industry, but slightly more from academia. If new members are added, the UF should consider adding a component to better balance social science researchers which could help assess some of the multi-disciplinarity of NHERI.

The UF discussed that officer rollover has benefits. Whomever might resume positions should move up from the committee to take advantage and leverage the learning and investment that has been made by those people. Elaina and Stephanie both voiced interest in remaining on the committee. Russell and Antonio suggested to elevate Elaina to the chair position. Interest was not surveyed in the room. Rather, the UF decided that decisions did not need to be made right now.

Action item: Russell will send out emails to committee members to learn interest in continuing on the committee, and potentially being elected into officer positions.

It was noted that officer rollover will change NCO representatives, etc.

The UF discussed our presentation at the 11NCEE. The session is 90 minutes with only 4 presentations. Jim M. is reaching out to the session moderator to see if they can give an overview of NHERI at the beginning of the session.

Action item: Elaina will assemble a presentation file for everyone's review that will include (1) intro to the UF, including our charge, membership, timeline, and goals, and (2) results from the annual user satisfaction survey. The presentation will be assembled from the presentation from last year's report to the NSF, and from the presentation prepared by Liesel and Kevin on the preliminary survey results.

Item 4: Meeting with NIAC

John van de Lindt (Colorado State University); William Hansmire (Parsons Brinckerhoff Inc), Catherine Petroff (US Army Corps), Lesley Ewing (California Coastal Commission), and Richard Woods (University of Michigan) joined the meeting from NIAC. Julio Ramirez (NCO) and JoAnn Browning (ECO) also joined.

Julio initiated the meeting as the second joint meeting of the UF and NIAC. Julio introduced the session as informal. The priorities of NHERI this year and going forward is to build community and to become a diverse community of engineers and scientists aimed at improving resilience of communities. This is by nature multi-hazard, either through cascading effects or from the multiple hazards acting together, as well as multi-disciplinary. As we become more active in research and NHERI projects are being completed, it is very important to measure and understand how that research is benefitting the U.S.

Russell provided an overview of the UF, its charge, and a short summary of some of the preliminary findings from the recent survey. A conversation ensued on who the users are, and whether practitioners actually ever use data from research projects. Comments were provided that many researchers and practitioners also serve on codes and standards committees, and often that is how the data and research gets incorporated into practice and used by practitioners. The conversation extended to how data is published and referenced. A suggestion of developing a data re-use index, similar to an H index, would be helpful particularly in understanding the breadth of how data generated from NHERI (and other sources) is used.

John suggested that the NHERI podcast tells NHERI user's stories, which in many ways shares the broader and societal impact of the research for that individual.

The discussion continued with how the UF can expand the 2,000 members registered on DesignSafe. Antonio shared that the NCO is charged with expanding that membership. JoAnn noted that the advertising budget is very small. John suggested that we could publish something on DesignSafe, and/or Civil Engineering Magazine with images from the sites, for example. Russell shared that this is one thing the UF is doing during presentations at conferences, including the 11NCEE this summer. Lesley suggested the webinars available on DesignSafe could be elevated, possibly with advertisement through ASCE, to provide PDHs.

John suggested to increase survey response rates, the UF could have a raffle and multiple laptops set up at conferences.

Item 5: Follow-up discussion from meeting with NIAC

The UF discussed publishing in Civil Engineering Magazine, not as an ad, but as an article that would also provide advertisement.

Action item: Antonio volunteered to reach out to the Civil Engineering Magazine editor to find out how the UF could submit a NHERI article.

Elaina shared the Natural Hazards Center's Research Counts series, and how in the future Jim M. and the technology transfer committee with the ECO could publish through it to reach an audience that isn't primarily civil engineering, or even engineering.

A discussed followed on the charge of NIAC, as there seems to be a bit of overlap with the UF. Antonio shared that if there was ever an issue, the Council would reach out for the NIAC to help sort through the issue. Whereas the UF is specifically charged with measuring user satisfaction, and it is up to the UF to define user and satisfaction.

Discussions followed on hosting booths at conferences with raffle entries for those who fill out the survey. The logistics of this is complicated so that we reach an audience from each NHERI community, and we do it in a tight period of time, and the need for a budget to support setting up a booth at the conferences, as well as a budget to offer a raffle prize.

Coming back to Forrest's comment on broader NHERI success, Antonio suggested more thinking was needed for how we would do this, and suggested we define a series of metrics, get feedback on these metrics, and add those into the survey.

The UF agreed that for the next UF-NIAC meeting, we should prepare an agenda and hold a more formal discussion. The UF discussed that it would be ideal to have survey findings, in detail, to share with the NIAC in person for their detailed feedback and advice on next steps. The timing did not work out for that this year with the in-person meeting being at the beginning of the summer. After the UF has the user satisfaction report, we will meet with the NIAC again to share the detailed findings with them.

Item 6: Discussion on activities for next year and budget needs

Antonio initiated a conversation on whether one survey is all we want to do, as we are not tied to that number. Russell brought up that once we review the DesignSafe survey and Facility exit interviews, we might find a way to leverage those surveys and results to not duplicate questions, and incorporate the results into our report. David suggested that we might also reach out to the EFs to centrally administer the exit interviews/surveys for their users so we can make consistent measurement across the facilities.

The UF discussed targeting participants who have attended NHERI facility workshops, or even CAREER proposal writing workshops. We could team up with the facilities for them to administer the survey as an exit survey during their workshops too.

We discussed whether we should send out multiple links: click here to take the survey if you are only planning to use data, click here if you are planning to write proposals. On the other hand, we can make sure we define users very broadly, but in detail, in our email administering the survey.

A new activity was suggested to form a subcommittee with UF, NCO, ECO and NIAC members to start developing metrics for measuring NHERI success/higher level of satisfaction.

Budget is likely to remain the same for next year: funding for (1) attending the in-person meeting, and (2) conducting the survey, analyzing the results, and developing the report.

As opposed to a booth at conferences with a raffle, the UF could include an incentive with the survey email, where the last page you can opt to include your email address to be entered into the raffle. Possibly the raffle is (5) \$100 gift cards to Amazon, where NHERI Council, UF, NIAC members cannot win. If this route is taken in the future, the UF will have to make sure that this is executed in a way that maintains anonymity of the respondent. Antonio doesn't suspect this needs a proposal to the NSF, but can be handed internally with the existing funding.

Russell motioned to adjourn at 3:35pm.

Attachment 1: User Satisfaction Survey

NHERI User Satisfaction Survey 2018

Question Set

Q3. Which of the following best describes your current position in the proposal process for NHERI Facilities and Resources?

- a. I'm writing my first proposal.
- b. My proposal has been accepted, but I have not begun utilizing the facilities.
- c. I am currently performing experiments/using the SimCenter.
- d. I have completed experiments.
- e. I have completed an experiment(s) and am working on the next proposal.

Q4. How many proposals have you prepared that used NHERI Facilities and Resources?

- Numeric response

Q5. (IF Q2 = b, c, d, e) How many facilities are you using/have you used?

- Numeric response

Q6. (IF Q2 = a) How many facilities are you writing proposals for?

- Numeric response

Q7. Which of the following best describes how you intend to utilize NHERI Experimental Facilities and/or the SimCenter?

- a. I want to access and use data that has already been uploaded.
- b. I intend to produce and upload original data.
- c. I want to access and use data and produce and upload original data (a and b).

Please respond to the following statements about NHERI experimental facilities.

Q8a. Information about NHERI experimental facilities is readily accessible:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q8b. Information about NHERI experimental facilities is comprehensive:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q9. Do you have any additional comments regarding information about NHERI Facilities and Resources?

- Open ended

We would like to ask you questions about NHERI Facilities' and Resources' staff, scheduling, and equipment.

Q11. NHERI experimental facility staff has provided useful feedback on proposed/ongoing/completed tests:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q12. The process for scheduling facilities matches my expectations (hide if 1):

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q13. The available training for the facility's equipment meets my needs:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q14. Technical support for the facility's equipment meets my needs:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q15. Do you have any additional comments about NHERI Facilities' and Resources' staff, scheduling, and equipment?

- Open ended

We have some questions regarding NHERI Facilities' and Resources' support resources.

Q17. Have you participated in any of the proposal writing workshops and/or seminars, or utilized NHERI support resources?

1. No
2. Yes

Q18. Have you requested assistance from NHERI as you write your proposal?

1. No
 2. Yes
- (IF Q18 = 2) Has the assistance you received been helpful?
1. No
 2. Yes
 3. Did not receive assistance

Q20. How many times a month, on average, do you use DesignSafe and other NHERI online resources and tools?

- Numeric response

Next, we would like to ask a few questions about data and data management with NHERI Facilities and Resources.

Q22a. The process of uploading my data is easy to complete:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q22b. The process of adding metadata matches my expectations:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree

5. Strongly Agree
6. Not Applicable/ Cannot Rate

Please respond to the following statements related to data.

Q23a. It's easy to locate the data that I want from my previous tests:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q23b. It's easy to locate the data that I want from others' tests:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q23c. The required format of the archived data is reasonable/logical:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q23d. The metadata quality for the archived experimental data is sufficient/logical:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q23e. The metadata comprehensiveness of the experimental data is sufficient:

1. Strongly agree

2. Disagree
3. Neutral
4. Agree
5. Strongly agree
6. Not Applicable/ Cannot Rate

Q23f. Data is available for download in useful formats:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q24. Do you have any additional comments regarding NHERI data?

- Open ended

Now we have a few questions regarding NHERI online resources and tools.

Q26a. The training available for NHERI's online resources and tools meets my needs:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q26b. The technical support for NHERI's online resources and tools meets my needs:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q27. What is the most important change to NHERI's services, tools, and resources that would improve your experience with them?

- Open ended

Q28. What service, tool, or resource not currently in NHERI should be added? What need is this going to meet?

- Open ended

Q30. Of the following which would you be most interested in participating in or using (please rank from most interested [1] to least interested [5]):

- a. A calendar of events and/or training.
- b. An annual workshop meeting for NHERI researchers.
- c. Video footage of experiments.
- d. A newsletter summarizing NHERI related information (e.g., calls for proposals, tests, seminars, training, etc.).
- e. A social media group featuring NHERI related information and news.
- f. Comments/Other suggestions:

Please respond to the following statements:

Q31. Information regarding NHERI is distributed at a useful rate and quantity:

- 1. Strongly disagree
- 2. Disagree
- 3. Neutral`
- 4. Agree
- 5. Strongly agree
- 6. Not Applicable/ Cannot Rate

Q32. The information regarding NHERI in DesignSafe is useful:

- 1. Strongly Disagree
- 2. Disagree
- 3. Neutral
- 4. Agree
- 5. Strongly Agree
- 6. Not Applicable/ Cannot Rate

Q33. Have you been made aware of the NHERI Science Plan?

- 1. No
- 2. Yes
- (If Q33 = 2) Please indicate all of the ways in which you have used the NHERI Science Plan (select all that apply).
- a. To learn of major research challenges
- b. To expand my current research scope
- c. To reference how my research fits within the Science Plan in my NSF proposals

Q35. Do you have any final comments regarding NHERI services and information?

- Open ended

Q36. Do you have any final comments regarding NHERI Facilities and Resources?

- Open ended