NHERI User Satisfaction Survey of Known NHERI Site Users Results

2023

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NHERI User Satisfaction Research

The National Science Foundation (NSF) requires the Natural Hazards Engineering Research Infrastructure (NHERI) to conduct user satisfaction research on an annual basis. The User Forum User Satisfaction Subcommittee conducted this survey to fulfill this requirement for the program's seventh year.

Year Seven User Satisfaction Survey

The 2023 survey instrument was identical to the 2022 version. Questions featured mixed-response options that captured both qualitative and quantitative data. As in 2022, the user forum's user satisfaction subcommittee opted to send the 2023 survey to a targeted population of 'known NHERI users'. The user satisfaction subcommittee broadly defines 'known NHERI users' as any individual who has utilized any component of the NHERI network in the past year, including facilities, resources, workshops, or tools. Known users represent a broad range of NHERI stakeholders, including graduate students, facility site staff, workshop attendees, PIs, and Co-PIs. NHERI facility PIs and Educational and Community Outreach (ECO) personnel assisted the User Forum in identifying 'known users' for the 2023 annual survey. In addition to assisting the User Forum with the identification of 'known users,' ECO personnel provided substantial support with recruiting participants to take the annual survey via Slack, social media, and an email list of NHERI-affiliated users. NHERI User Forum members directly solicited survey responses in person at the Summer Institute from June 21st to June 23rd, 2023. Additionally, NHERI User Forum representatives attended and presented the user satisfaction survey initiative to the NHERI Graduate Student Council as part of a strategic effort to engage graduate students in the NHERI network.

Using the online survey software Qualtrics, the committee collected data from June 12th, 2023, to September 15th, 2023. The committee adopted a prolonged data collection window to maximize potential survey respondents and increase the sample size from previous years. The initial invitation to participate in the survey and subsequent follow-up reminders were sent via email by NHERI ECO personnel to a broad list of NHERI affiliates. The initial invitation to participate included a language clarifying the target audience of known users and expressing the goal of the survey. The initial invitation also included a request for recipients to share it with Co-PIs, post-doctoral researchers, graduate students, and other researchers whom they knew to have utilized NHERI services, tools, and resources. Two reminder messages were sent following the initial invitation, encouraging known site users to complete the survey if they had not already done so. Seventy-four users began the survey, and seventy-two agreed to participate. Due to the request that known site users share the survey invitation with others known to have utilized NHERI services, tools, and resources, we are unable to calculate a response rate.

Overall Findings Summary

The 2023 survey yielded quantitative and qualitative data on various dimensions of user satisfaction. Responses to demographic questions indicate most NHERI facility users are male, hold graduate student researcher, post-doctoral researcher, or research assistant positions, and identify as early career researchers.

Feedback derived from quantitative data suggests respondents had overall positive experiences with NHERI facilities and resources, and responses to the 'Big 4' questions reflect

users' positive attitudes toward NHERI. In these questions, most respondents agreed that NHERI had helped advance research collaborations within the natural hazards research community (65.63%) and that their research had been enhanced through NHERI resources and/or their connection to the NHERI components (87.51%). Similarly, a majority of respondents indicated they would write a future grant proposal that would involve the use of NHERI resources (68.75%). These responses, combined with the remaining feedback provided by respondents, demonstrate the value of NHERI resources and services to the natural hazards research community.

Regarding interaction with and utilization of NHERI facilities and resources in the proposal process, all respondents were at some point in the proposal and research process. Of the responses received for Question 8, 14.81% were actively performing experiments/using the SimCenter, and 18.52% had either completed experiments or had completed experiments and were working on the next proposal. The remaining 66.67% had yet to begin utilizing facilities or were writing their first proposal.

With regard to the intended utilization of NHERI data, 82.35% of respondents reported wanting to (a) both access and use data and produce and upload original data or (b) produce and upload original data. Only 17.65% of respondents reported intending to exclusively utilize pre-existing data.

Regarding satisfaction with information about NHERI facilities and resources, NHERI staff, scheduling, equipment, support resources, data utilization and interface, and online resources and tools, respondent feedback was largely positive and similar to feedback from previous surveys.

In cases where feedback was less than favorable, respondents took the opportunity to provide constructive feedback in open-ended questions. Several questions from previous user satisfaction surveys were repeated in 2023. However, perhaps due to the respondents' early career and graduate student composition, a sizable proportion of responses to site and component-specific questions on user satisfaction were rated as 'neutral' or 'not applicable/cannot rate' throughout. Even so, on balance, substantive respondent feedback in 2023 on repeated questions was slightly more positive than it was in 2022.

Qualitative data on NHERI facilities, staff, and resources yielded critical feedback that was detailed and constructive. Given the limited number of respondents compared to the number of presumed active users in the NHERI community, the qualitative and quantitative findings presented here should be interpreted cautiously. Instead, these results should be used to consider ways to refine and improve NHERI's offerings. Even so, critical feedback remained generally positive and actionable.

The following sections discuss item-level findings in depth. A copy of the survey instrument and comprehensive qualitative data are attached to this report as Appendices A and B.

Item-Level Data

This section provides detailed, question-level data. The question in the survey that deals with informed consent and agreement to participate is excluded from this section.

Q1-Do you consider yourself an early career researcher? (N=68)
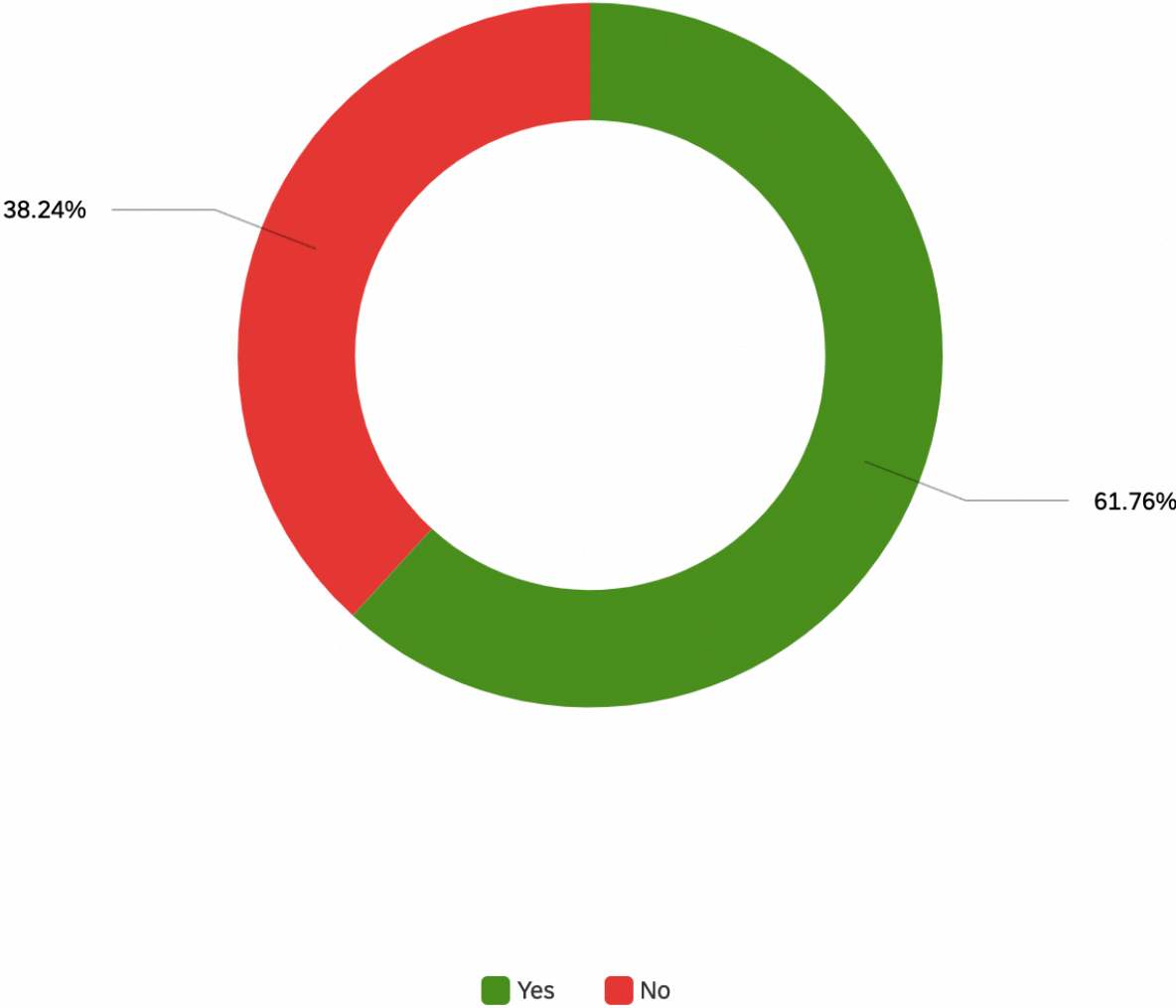
This question was included in the 2023 NHERI user satisfaction survey instrument as part of a trio of questions designed to capture demographic data on user satisfaction survey participants. 61.76% of respondents do consider themselves early career researchers, and the remaining 38.24% of respondents do not consider themselves early career researchers.

Q2-Which of the following best describes your position? (N=68)
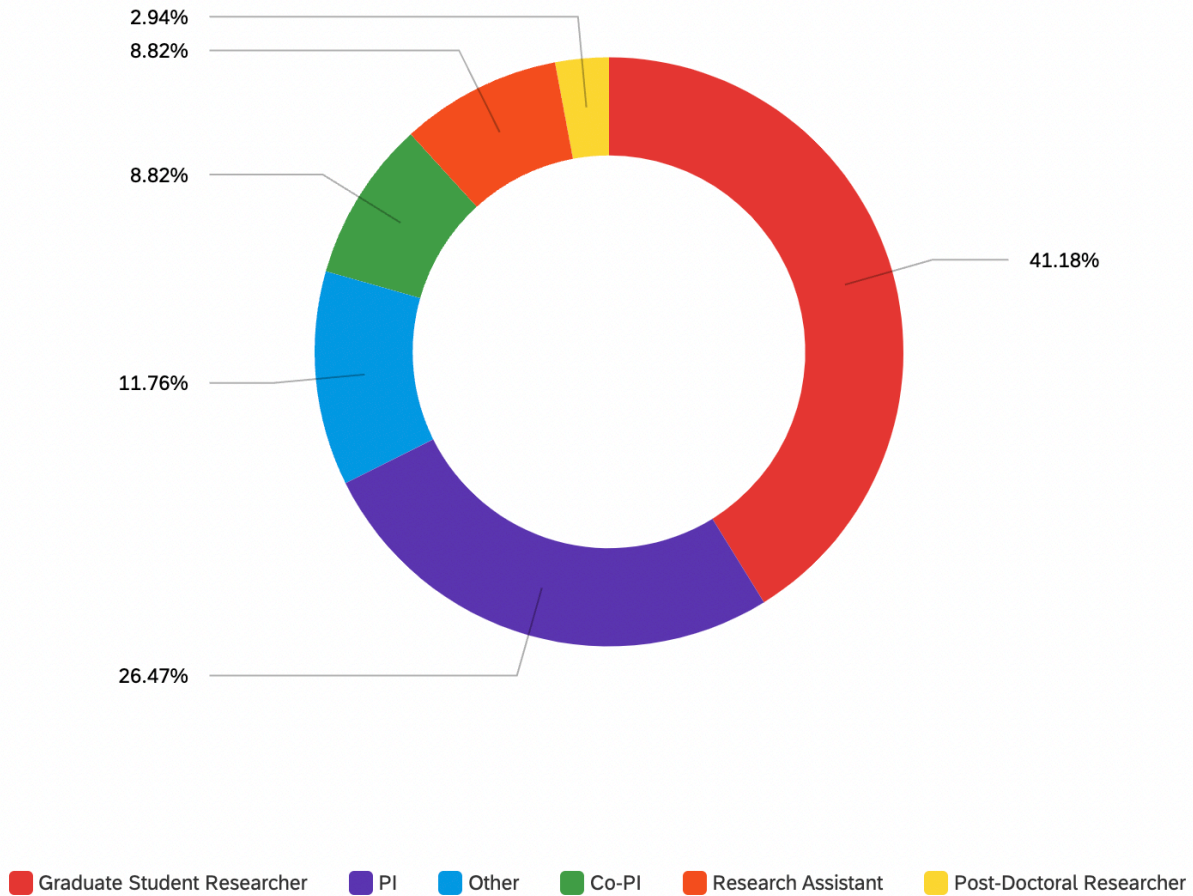
2.94%
8.82%
8.82%
11.76%
26.47%
41.18%

■ Graduate Student Researcher ■ PI ■ Other ■ Co-PI ■ Research Assistant ■ Post-Doctoral Researcher

This question was included in the 2023 NHERI user satisfaction survey instrument as part of a trio of questions designed to capture demographic data on user satisfaction survey participants. Reflective of the proportion of respondents that consider themselves early career researchers, just over half of all respondents indicated they identified as a Graduate Student Researcher (41.18%), Research Assistant (8.82%), or Post-Doctoral Researcher (2.94%) at the time of data collection. A smaller proportion of participants indicated they held positions as PI (26.47%) or Co-PI (8.82%), with all remaining respondents indicating they held 'Other' (11.76%) positions at the time they took the survey. Respondents who indicated they held an 'Other' position were prompted to report their role via text. Verbatim responses include 'Project scientist,' 'Early Career Faculty,' 'Industry,' 'Laboratory Staff,' and 'Facility Ops Manager.'

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Q3-Please select your gender. (N=68)
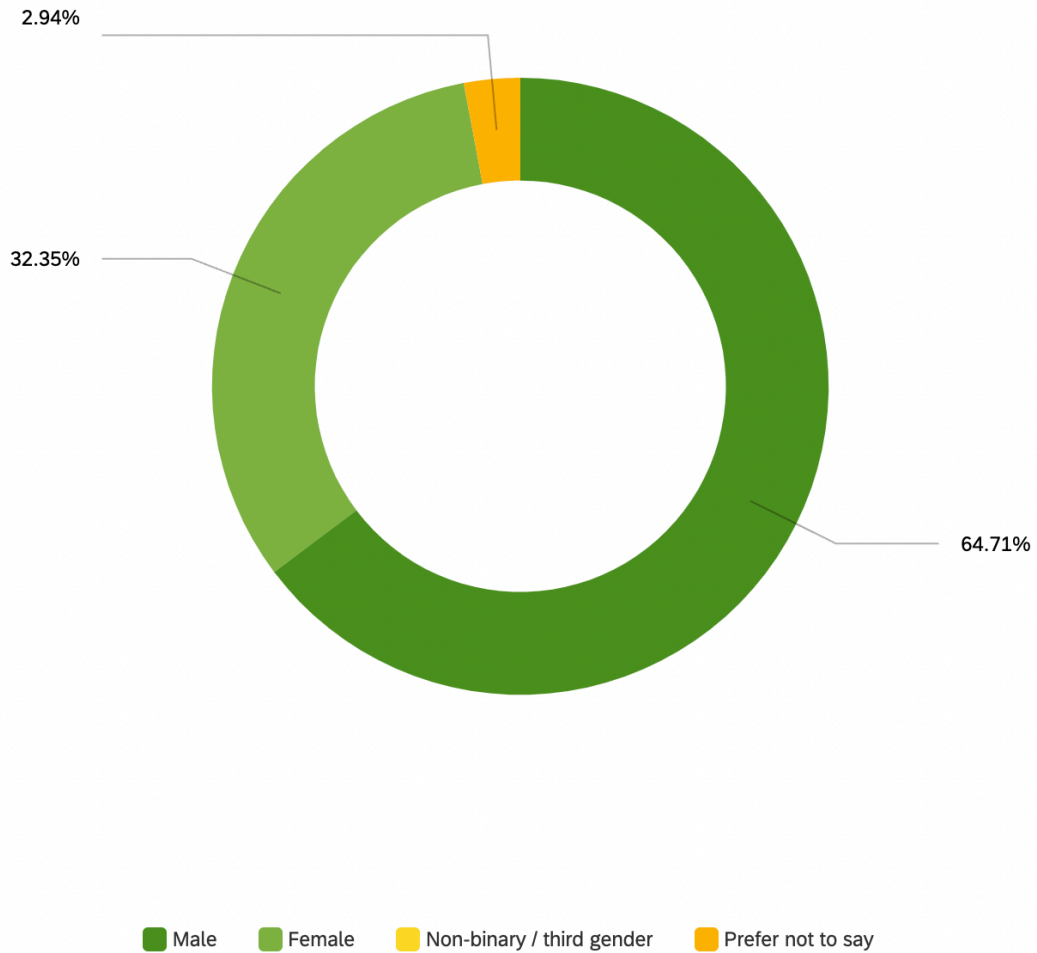
This question was included in the 2023 NHERI user satisfaction survey instrument as part of a trio of questions designed to capture demographic data on user satisfaction survey participants. Based on feedback from previous NHERI user satisfaction survey instruments, responses were presented with the option to select gender identity from three categories: Male, Female, and Non-binary/third gender. Respondents were also given the option to withhold gender identity with the 'Prefer not to say' response category. A majority of respondents indicated they identify as Male (64.71%), with a smaller proportion of participants identifying as Female (32.35%) or indicating that they 'Prefer not to say' (2.94 %).

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Q4-My own research has been enhanced through my use of NHERI resources and/or my connection to the NHERI components. (N=64)
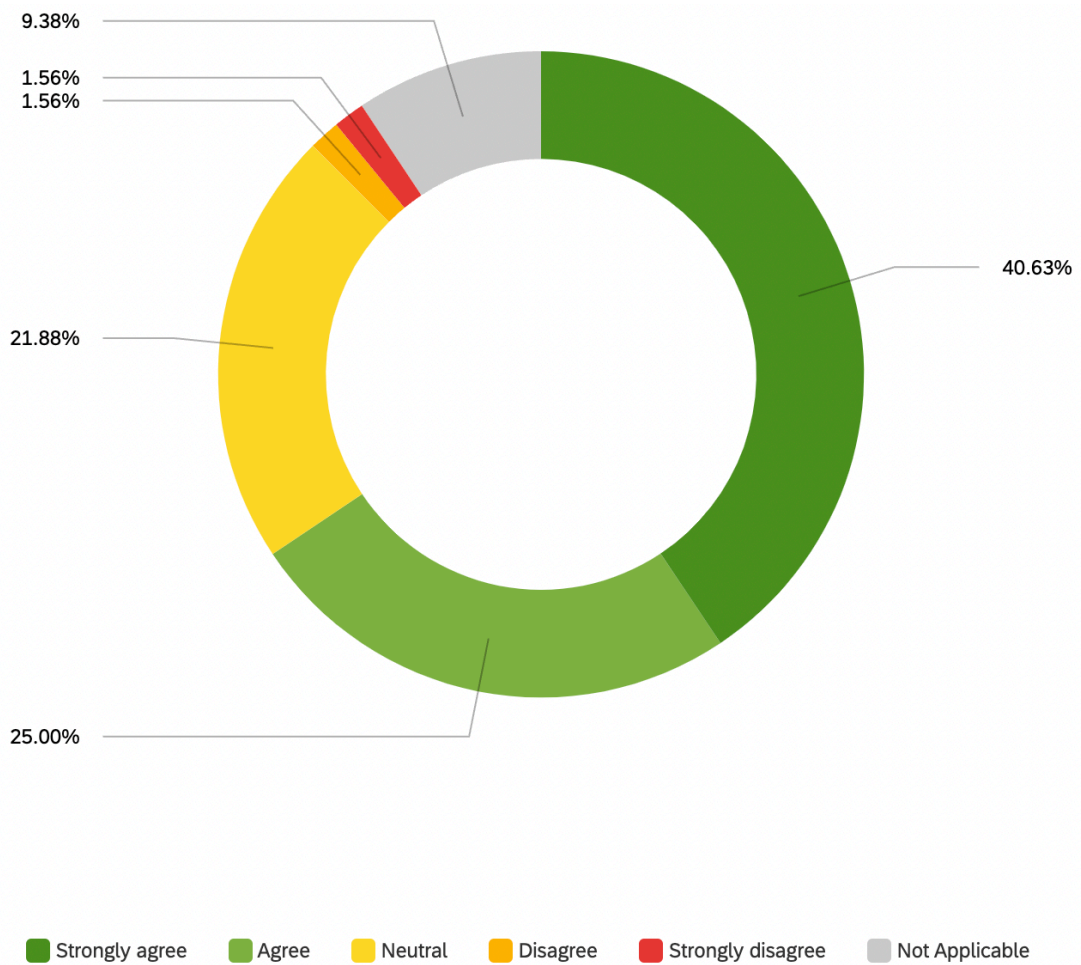
This question was included in the 2023 instrument as part of a transition toward a short-form survey of user satisfaction known as 'the big 4' used in facility and component level assessment of user satisfaction. Most respondents Strongly Agreed (40.63%) or Agreed (25.00%) that their "own research has been enhanced" through their "use of NHERI resources/and or…connections to the NHERI components." Remaining respondents were Neutral (21.88%), found this statement Not Applicable (9.38%). The smallest proportion of respondents Disagreed (1.56%) or Strongly Disagreed (1.56%) with this statement.

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Q5-The creation of NHERI has helped to advance research collaborations in the natural hazards research community. (N=64)
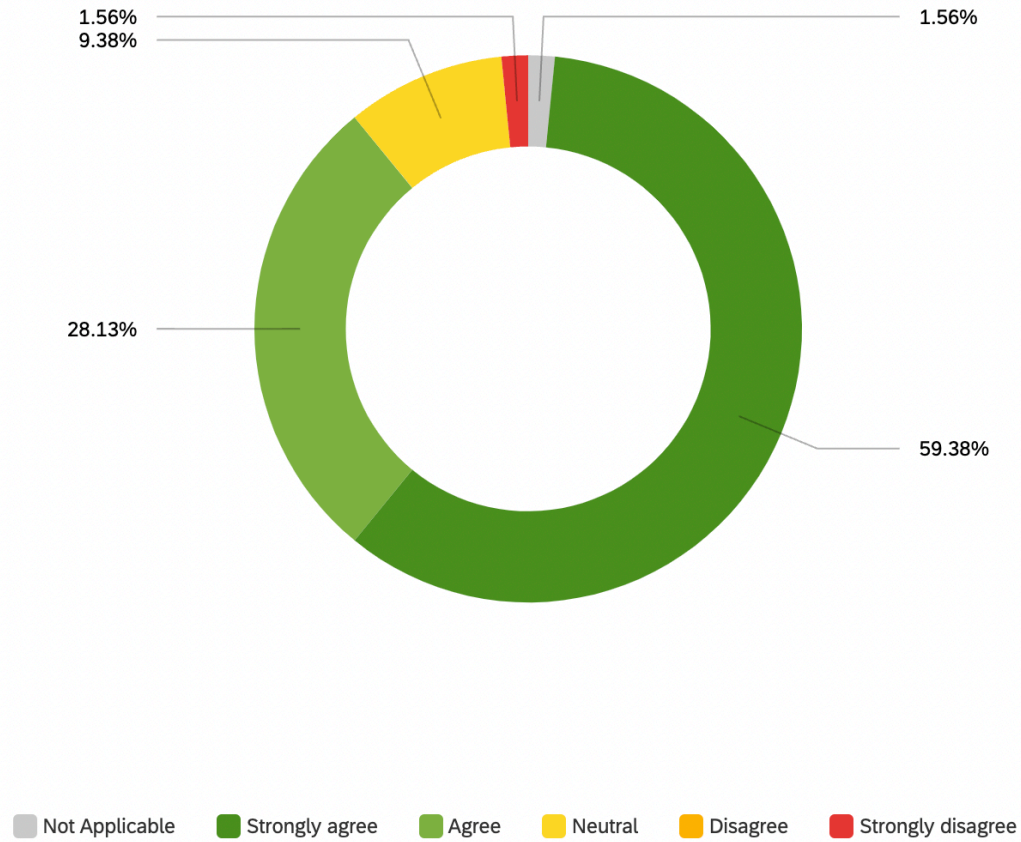
This question was included in the 2023 instrument as part of a transition toward a short-form survey of user satisfaction known as 'the big 4' used in facility and component level assessment of user satisfaction. An overwhelming majority of respondents Strongly Agreed (59.38%) or Agreed (28.13%) that NHERI "has helped to advance research collaborations in the natural hazards research community." Fewer respondents were Neutral (9.38%) to this statement, and the smallest proportion of respondents found it Not Applicable (1.56%), or Strongly Disagreed (1.56%). No respondents Disagreed with this statement.

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Q6-I have reviewed the NHERI Science Plan-Version 1.0 and/or Version 2.0 (N=64)
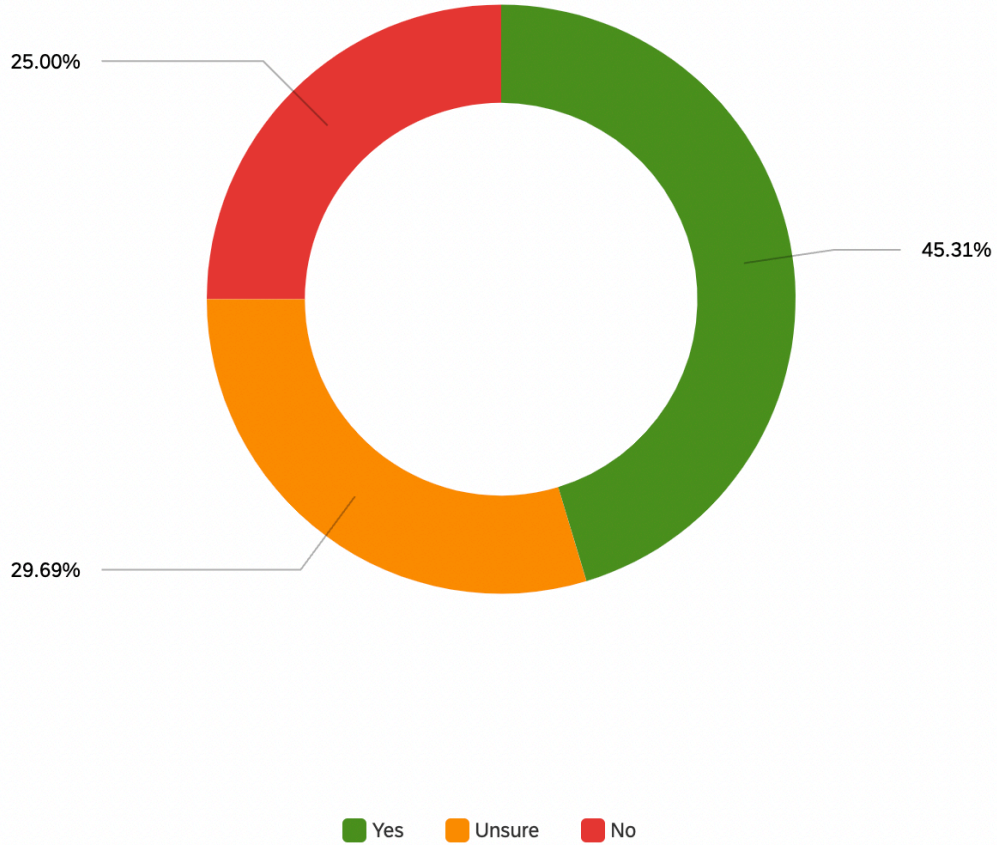
25.00%

45.31%

29.69%

■ Yes ■ Unsure ■ No

This question was included in the 2023 instrument as part of a transition toward a short-form survey of user satisfaction known as 'the big 4' used in facility and component level assessment of user satisfaction. Just under half of all respondents indicated they had reviewed the NHERI Science Plan (45.31%). Remaining respondents indicated they had not reviewed the NHERI Science Plan (25.00%) or were Unsure (29.69%).

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Q7- On a scale of 1 to 5, how likely are you to write future grant proposals that will involve the use of NHERI resources? (N=64)
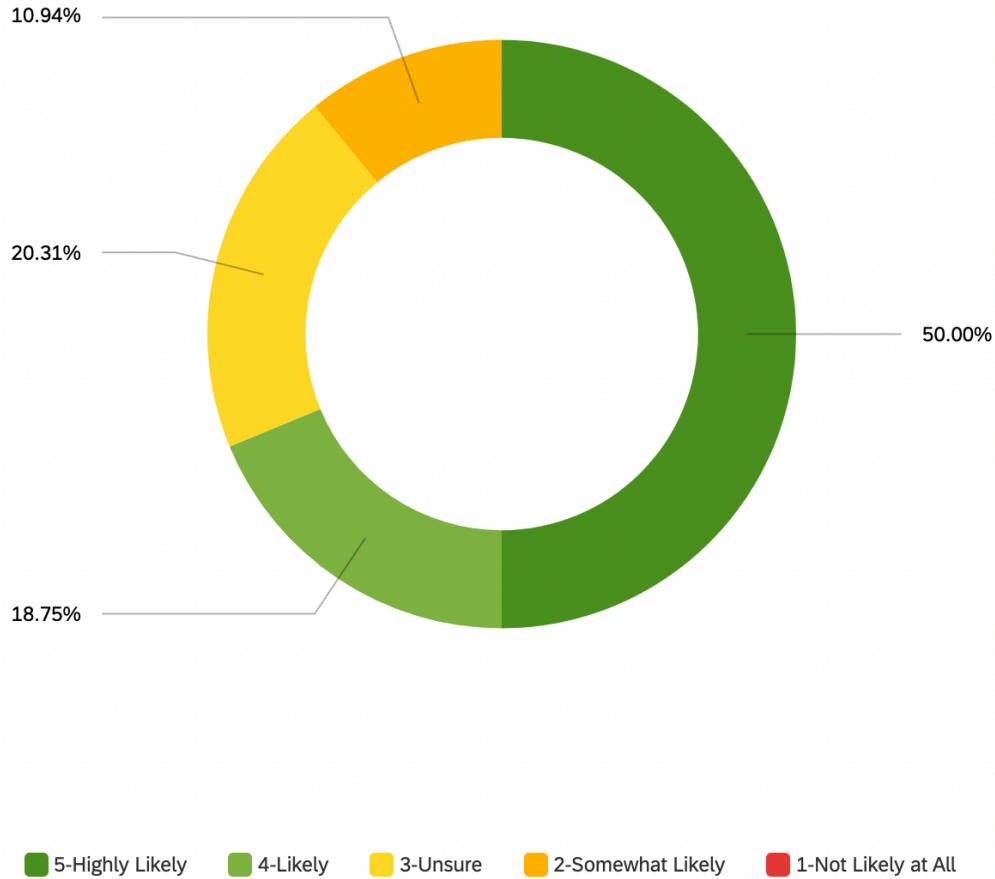

This question was included in the 2023 instrument as part of a transition toward a short-form survey of user satisfaction known as 'the big 4' used in facility and component level assessment of user satisfaction. A majority of respondents indicated they were Highly Likely (50.00%) or Likely (18.75%) to write future grant proposals that will involve the use of NHERI resources. Remaining respondents were Unsure (20.31%), or indicated they were Somewhat Likely (10.94%) to write future grant proposals that will involve the use of NHERI resources. No respondents indicated they were Not Likely at All to write future grant proposals that will involve the use of NHERI resources.

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Q8-Which of the following best describes your current position in the proposal process for NHERI Facilities and Resources? (N=54)
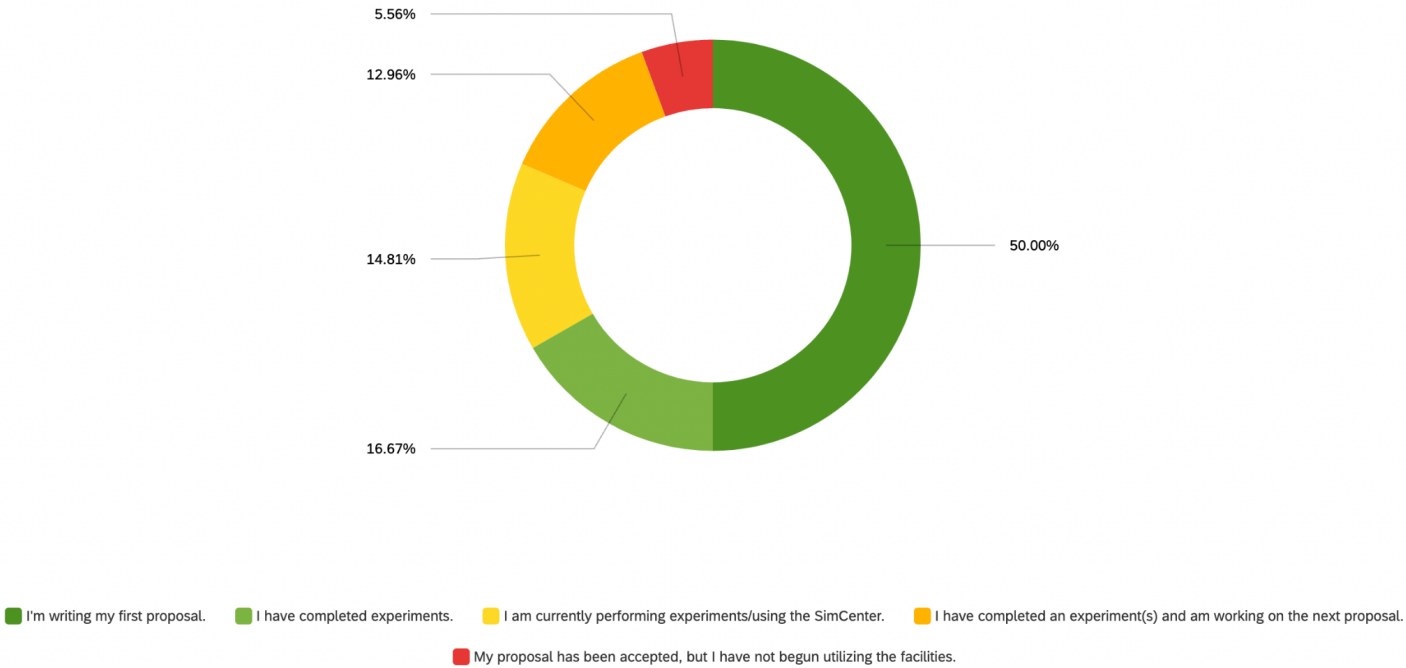
This question was added to the user satisfaction survey in 2018 to provide more details about the NHERI user group's interaction with NHERI through the proposal process. In 2023, most respondents indicated they were writing their first proposal (50.00%) or had completed experiments (16.67%). Remaining respondents indicated they were currently performing experiments or using the SimCenter (14.81%), had completed an experiment(s) and were working on the next proposal (12.96%), or that their proposal had been accepted, but they had not begun utilizing facilities (5.56%).

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Q9- How many proposals have you prepared that used either the NHERI Facilities and Resources? (N=45)
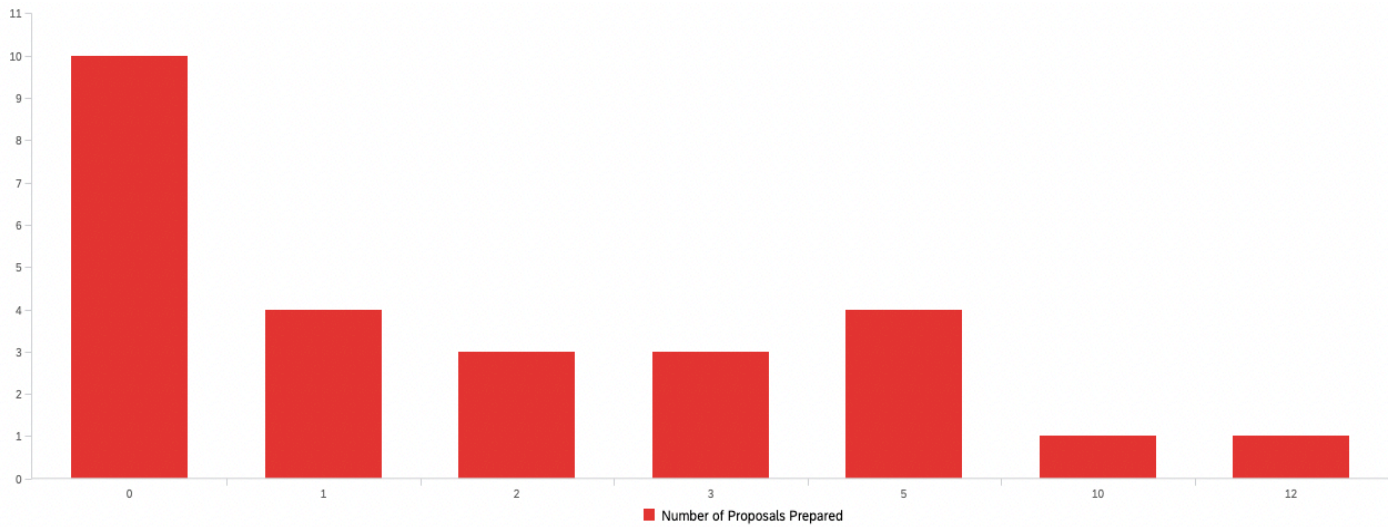
Most respondents indicated they had not yet prepared a proposal that used NHERI facilities and resources, in line with the proportion of respondents that indicated previously they were working on their first proposal. Remaining respondents indicated they prepared 1 to 12 proposals utilizing NHERI Facilities and Resources.

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Q10- How many facilities are you writing proposals for? (N=45)
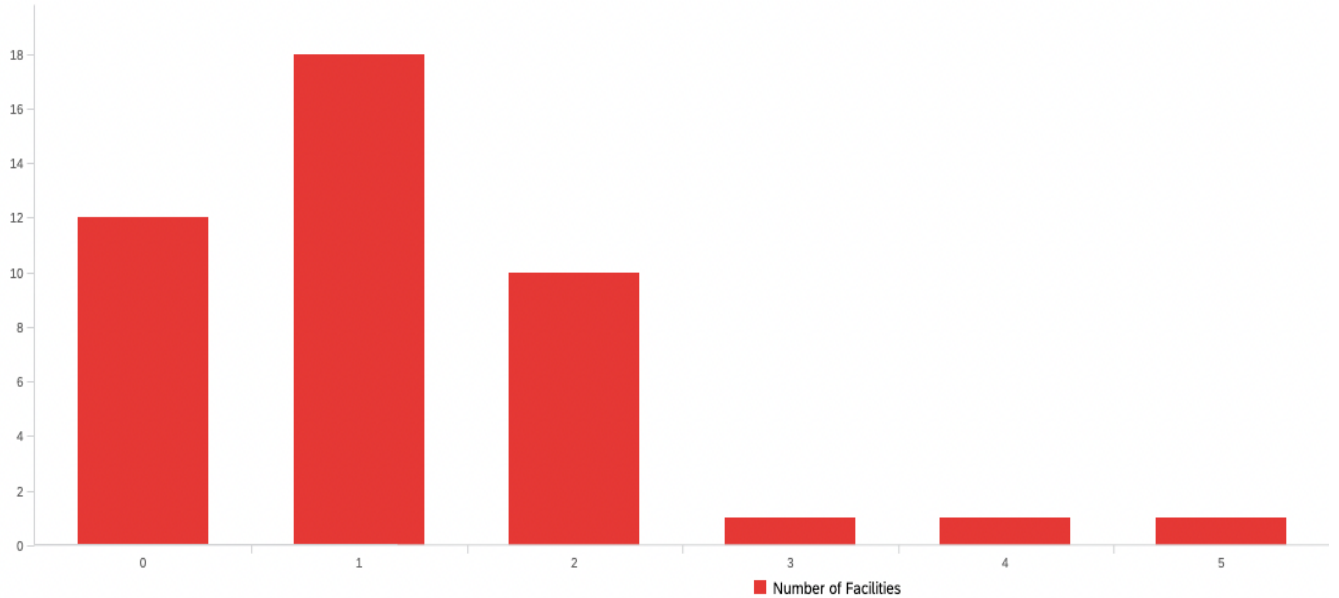
If participants indicated they were currently performing experiments, had completed experiments, or had completed experiments and were working on the next proposal they were asked to report how many facilities they are writing proposals for. Responses to this question ranged from 0 to 5, with most respondents reporting they are planning to use a single NHERI facility or no NHERI facilities.

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Q11-Which of the following best describes how you intend to utilize NHERI Facilities and Resources? (N=51)
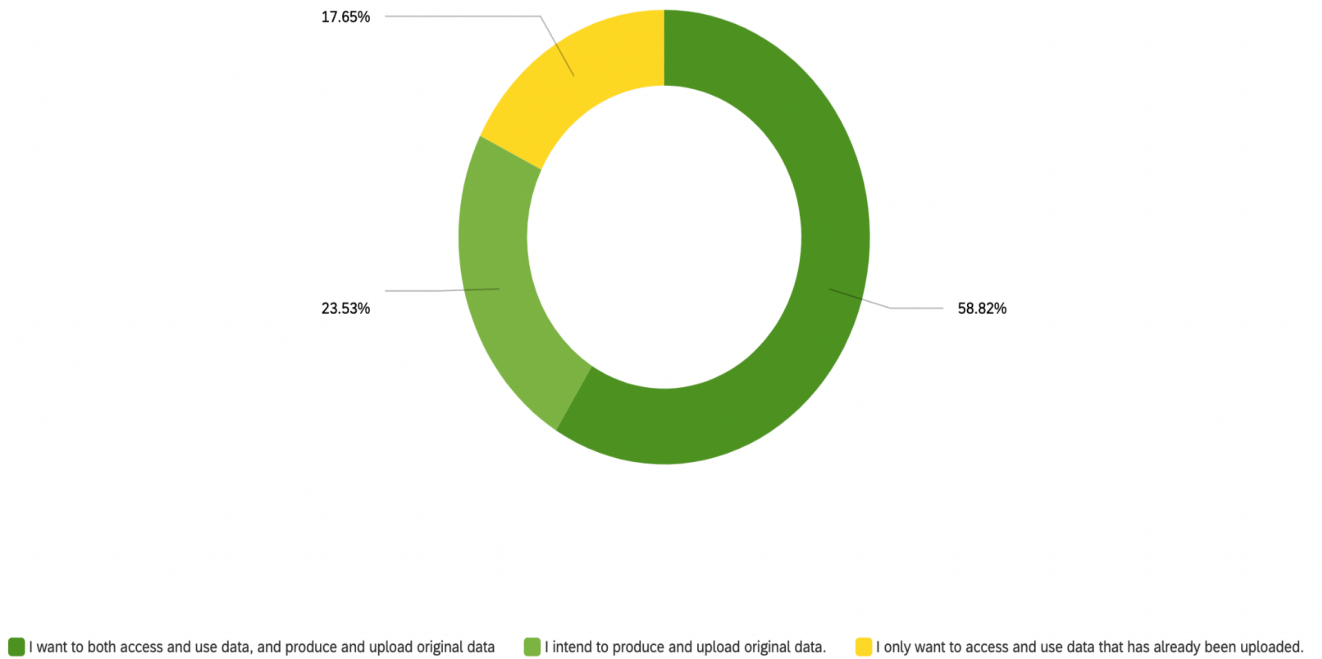
Most respondents (58.82%) reported wanting to both access and use data and produce and upload original data. A smaller proportion of respondents (23.53%) intend to produce and upload original data, and the smallest proportion of respondents (17.65%) reported only wanting to access and use data that has already been uploaded.

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Q12-Regarding NHERI Data: (N=48)

Respondents were asked to respond to six dimensions of satisfaction with NHERI data. Findings here are generally positive and consistent with responses to corresponding questions from previous surveys. However, perhaps reflective of an early career and new to the NHERI network population, a sizable proportion of responses to all six dimensions of satisfaction were reported as 'Not Applicable/Cannot Rate,' or 'Neutral.'

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

16.67%

25.00%

12.50%

4.17%

10.42%

31.25%

Strongly Agree   Agree   Neutral   Disagree   Strongly disagree   Not Applicable/Cannot Rate
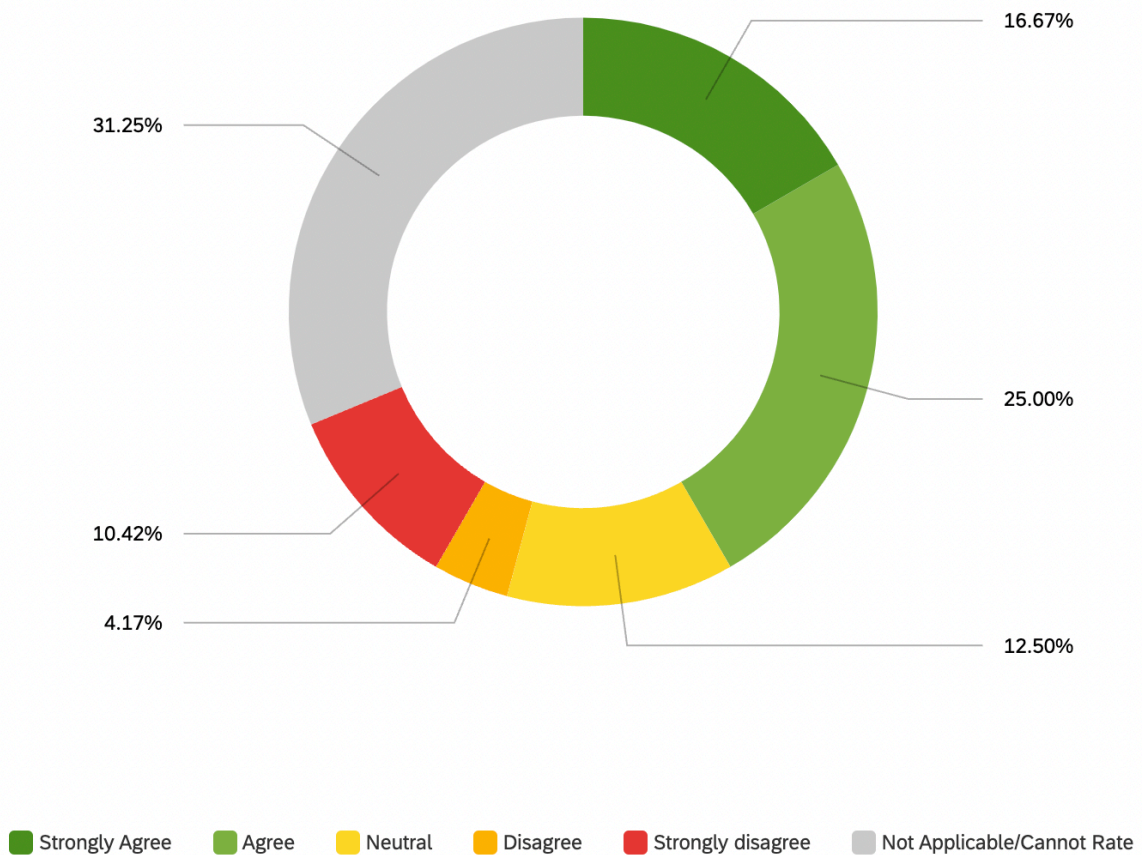
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It's easy to locate the data that I want from others' tests.

14.58%

35.42%

16.67%

6.25%

8.33%

18.75%

Strongly Agree Agree Neutral Disagree Strongly disagree Not Applicable/Cannot Rate
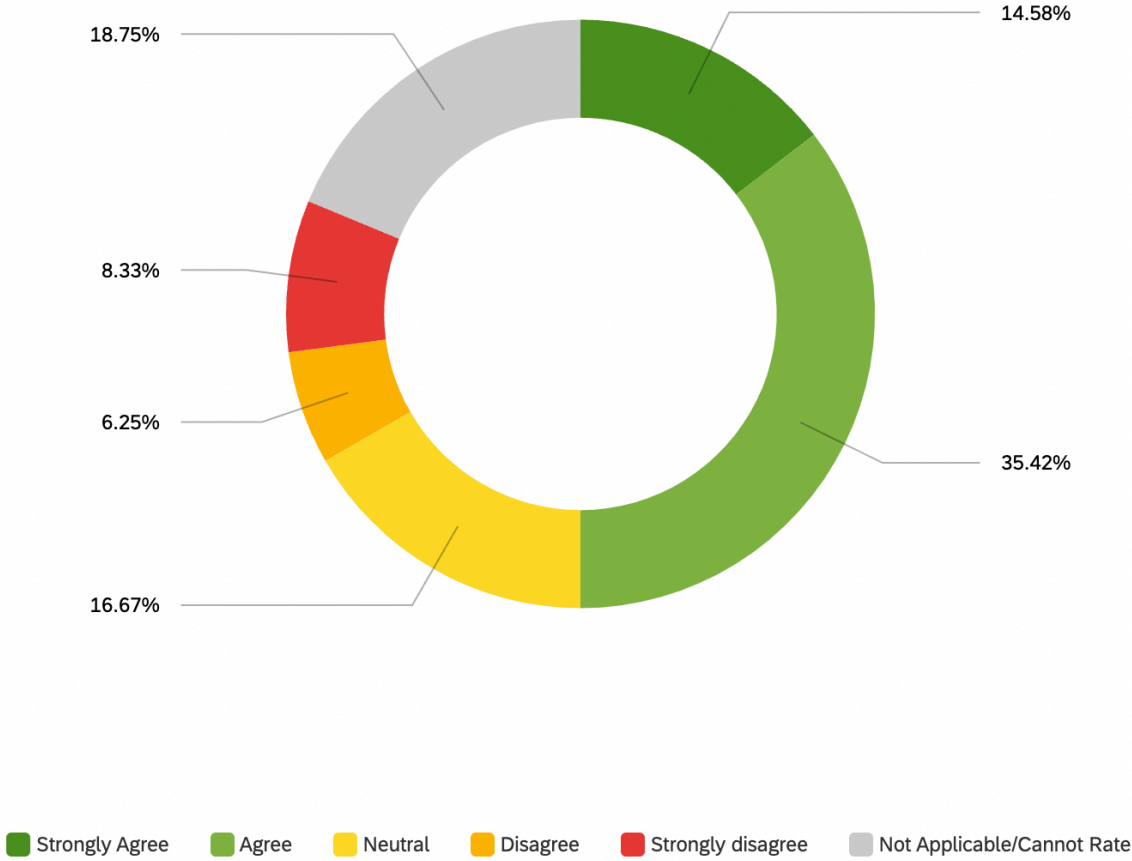
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The required format of the archived data is reasonable/logical.
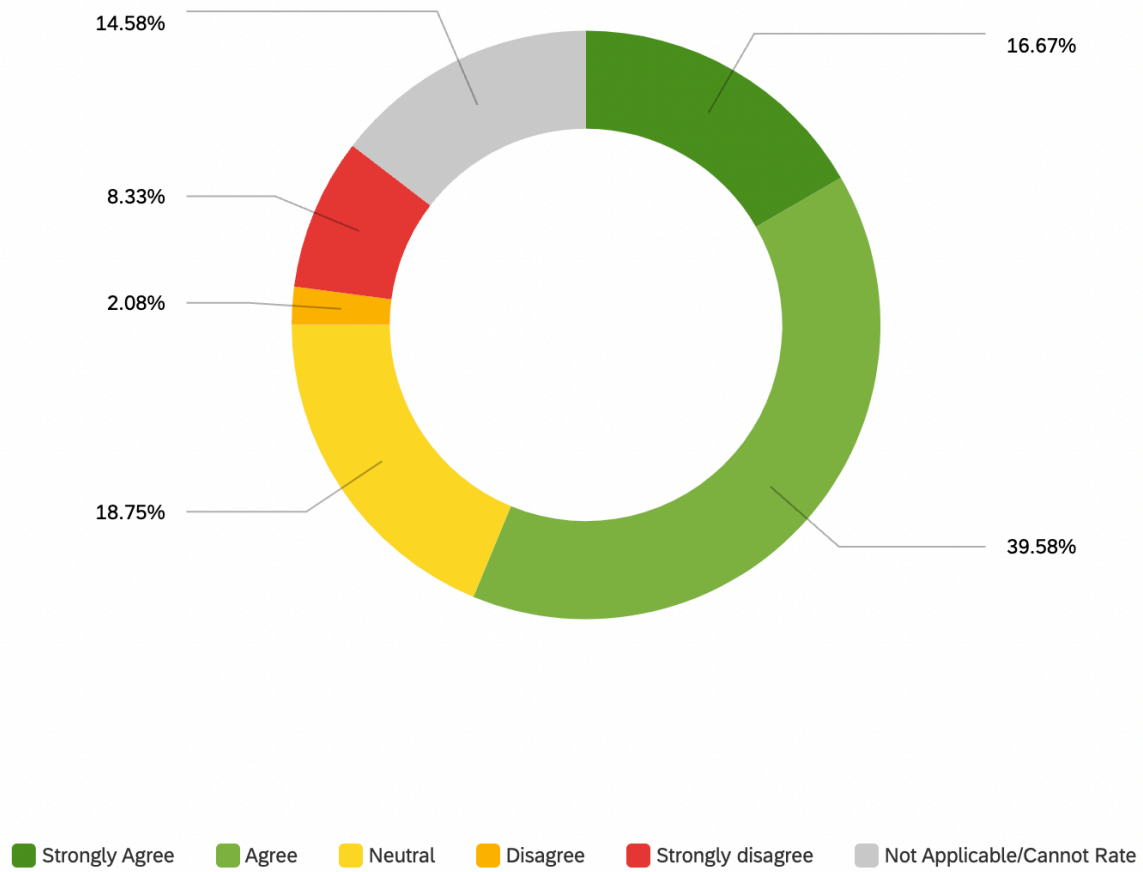
14.58% 16.67%

8.33%

2.08%

18.75% 39.58%

Strongly Agree Agree Neutral Disagree Strongly disagree Not Applicable/Cannot Rate

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The metadata quality for the archived experimental data is sufficient.

Legend: Strongly Agree, Agree, Neutral, Disagree, Strongly disagree, Not Applicable/Cannot Rate

- 12.50%
- 31.25%
- 18.75%
- 8.33%
- 6.25%
- 22.92%

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The metadata comprehensiveness of the experimental data is sufficient.

12.50%

20.83%

29.17%

6.25%

2.08%

29.17%
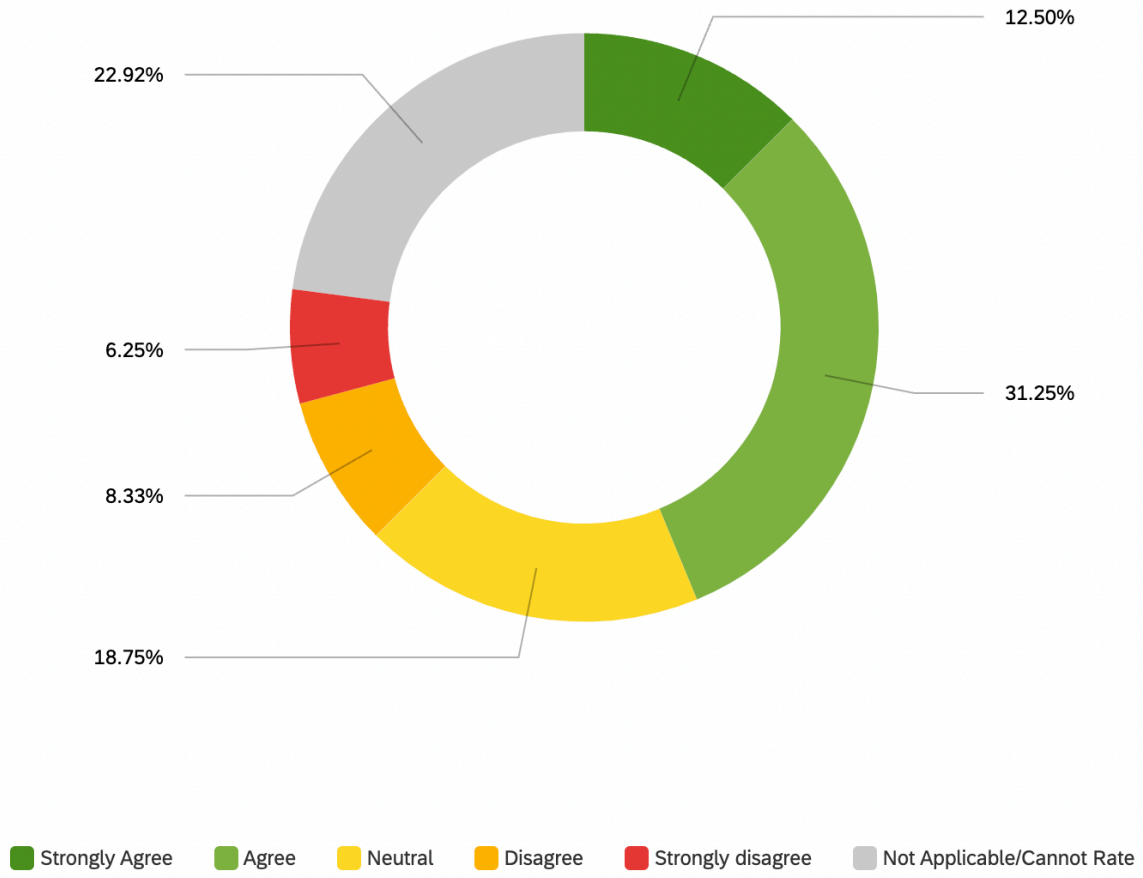
Strongly Agree   Agree   Neutral   Disagree   Strongly disagree   Not Applicable/Cannot Rate
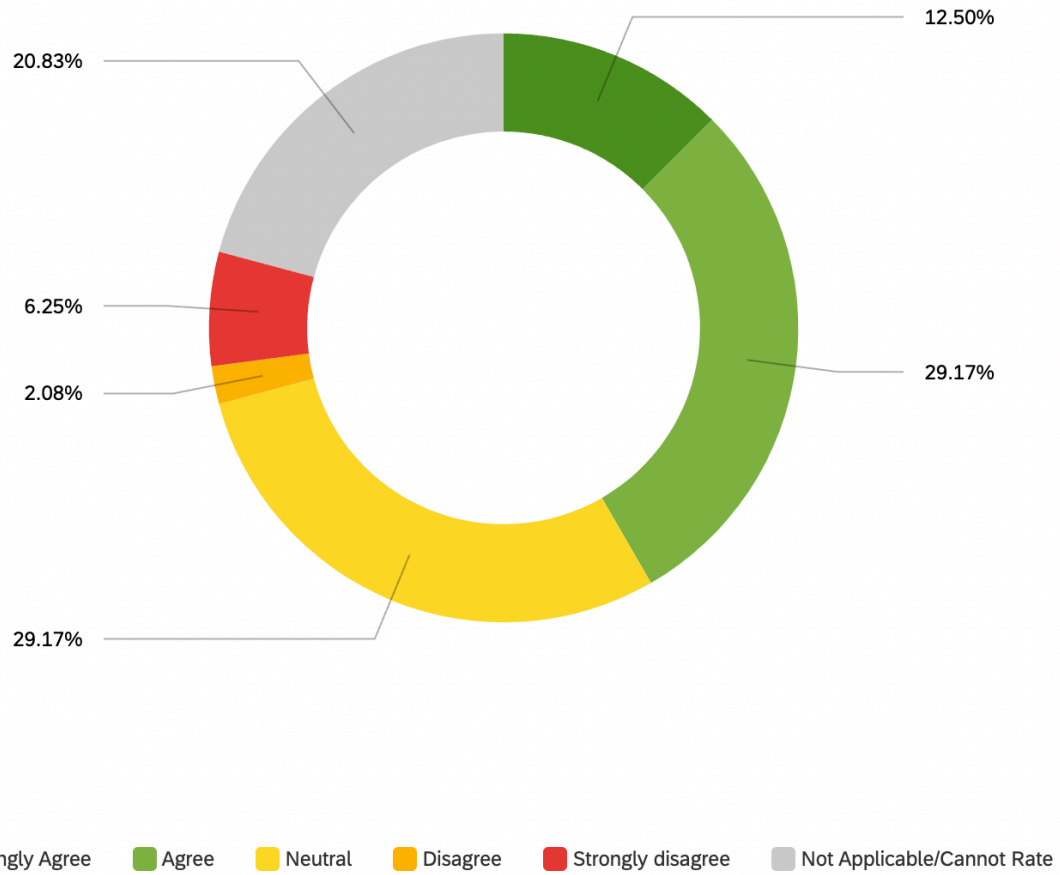
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Data is available for download in useful formats.

14.58%

6.25%

8.33%

10.42%

35.42%

25.00%
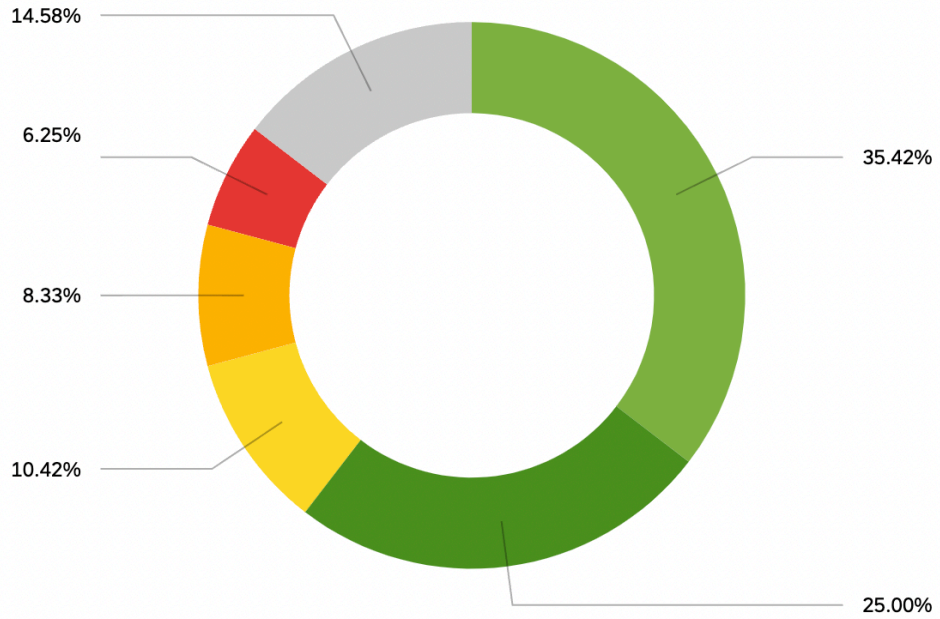
Agree | Strongly Agree | Neutral | Strongly disagree | Disagree | Not Applicable/Cannot Rate

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Q13-Do you have any additional comments regarding NHERI data? (N=13)

Participants were also asked to provide comments regarding data. Substantive comments provided by respondents suggest "bulk downloads" would improve the user experience along with improved "searching tools" that could "go across NHERI and NEES datasets." Other respondents commented on how "integral" and "great" the research network and DesignSafe are for the natural hazards research community.

Q14A-Information about NHERI Facilities and Resources is <u>Readily Accessible</u> (N=49)
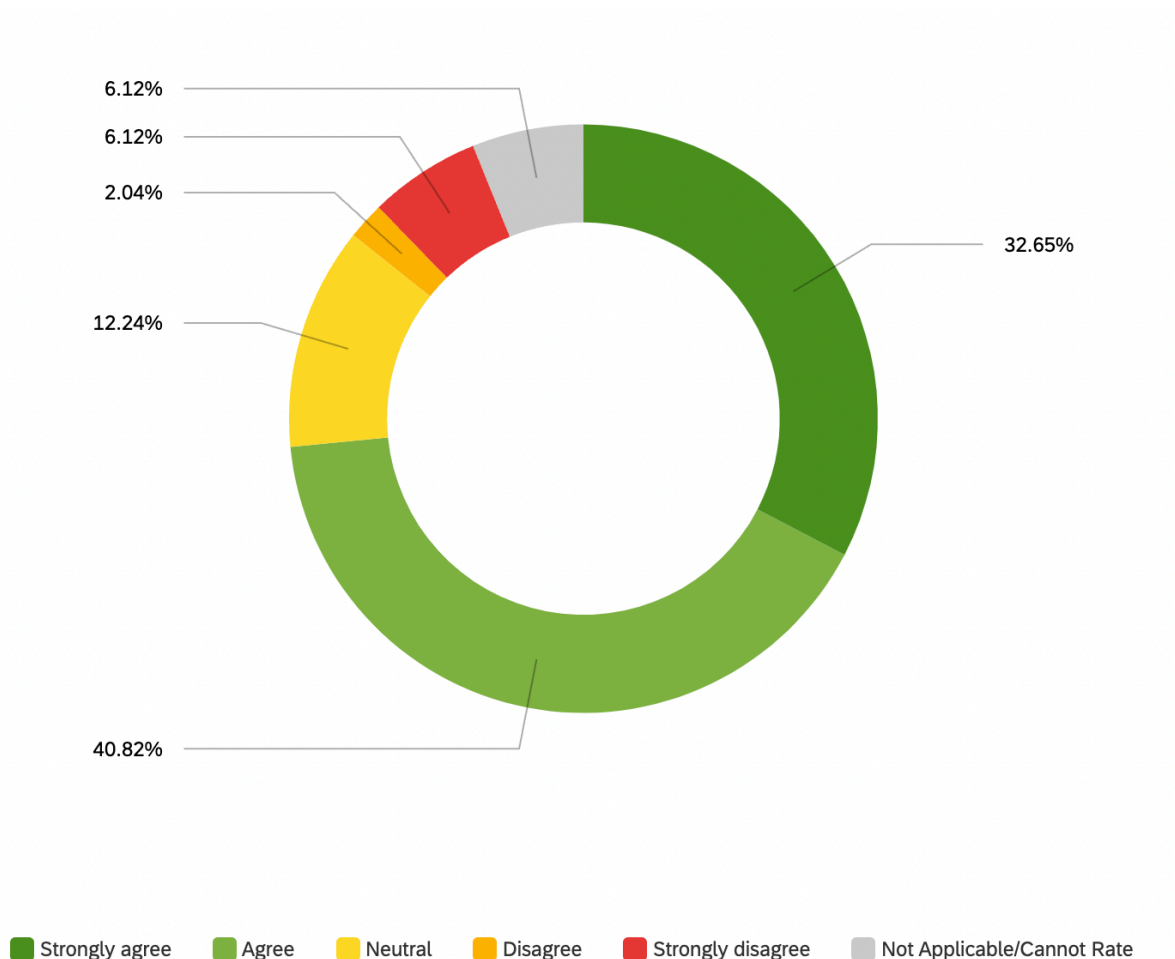
A significant majority of respondents indicated they Agreed (40.82%) or Strongly Agreed (32.65%) with the statement that Information about NHERI Facilities and Resources is Readily Accessible. A small proportion of respondents indicate they Strongly Disagreed (6.12%) or or Disagreed (2.04% with this statement. Remaining respondents were Neutral (12.24%) to this statement or found it 'Not Applicable/cannot Rate' (6.12%).

Q14B- Information about NHERI Facilities and Resources is <u>Comprehensive</u> (N=47)
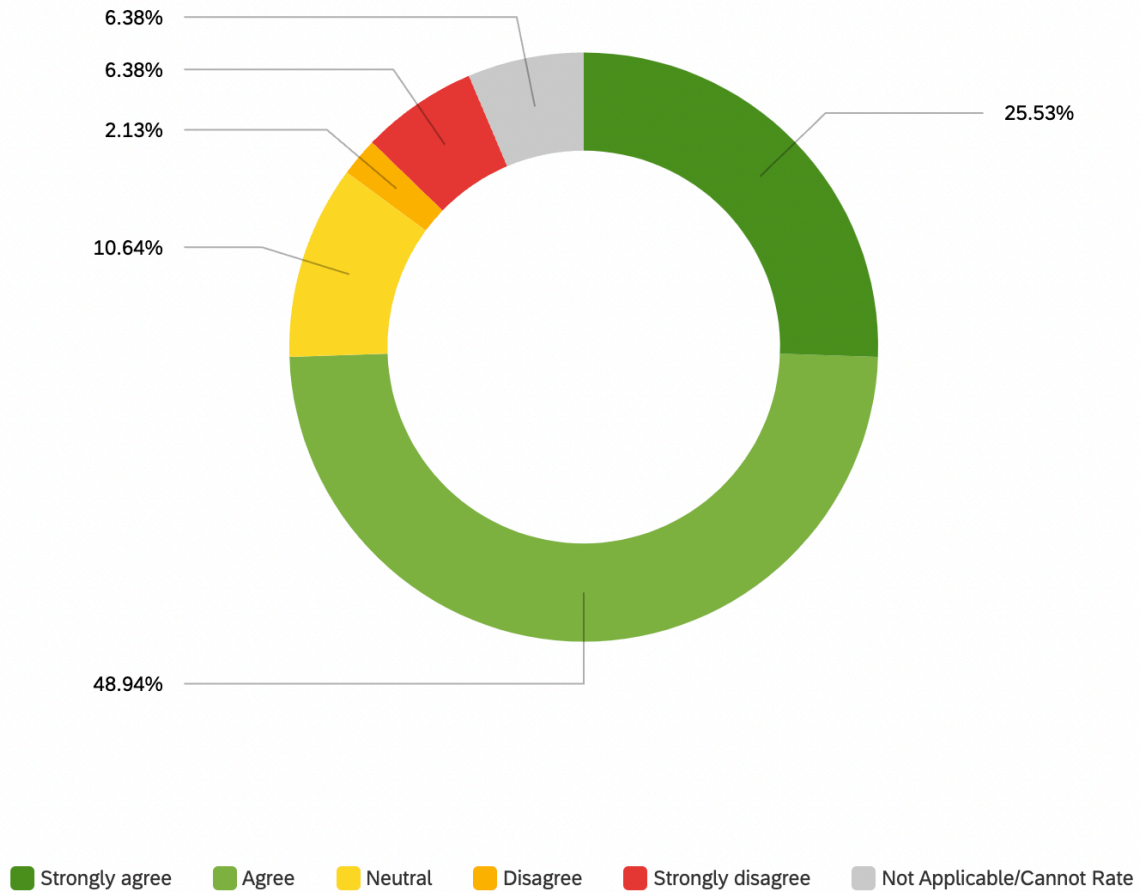
A majority of respondents indicated they Agreed (48.94%) or Strongly Agreed (25.53%) with the statement that Information about NHERI Facilities and Resources is Comprehensive, and a very small proportion of respondents indicated they Disagreed (2.13%) or Strongly Disagreed (6.38%) with the statement. Remaining respondents indicated that they were Neutral (10.64%) to the statement or found it 'Not Applicable/Cannot Rate' (6.38%).

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Q15-Do you have any additional comments regarding information about NHERI Facilities and Resources? (N=11)

Participants were given the option to provide comments regarding information about NHERI Facilities and Resources. Respondents who opted to answer this question delivered constructive commentary on how NHERI could improve the accessibility of information about the facilities through the addition of a "webpage that comprehensively explains the facilities and resources" that is "heavily advertised to early career scholars." Similar suggestions to make a "quick facts sheet of all the institutes" that features "past research conducted" and "interdisciplinary examples." Additionally, participants noted that information on facilities was "readily accessible IF you have a funded nsf project" and that though information was "sometimes hard to find," it is "overall well done."

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Q16-NHERI experimental facility staff has provided useful feedback on proposed/ongoing/completed tests. (N=49)

● Strongly agree	● Agree	● Neutral	● Disagree	● Strongly disagree	● Not Applicable/Cannot Rate
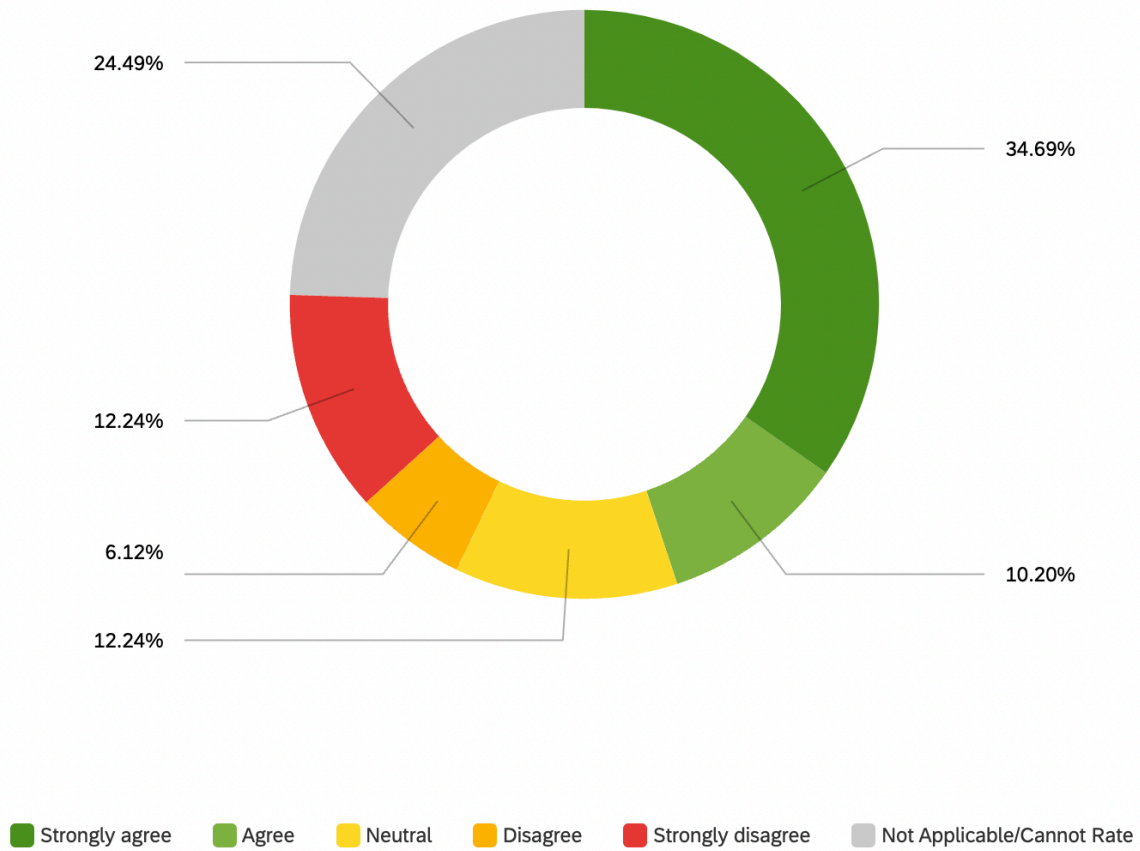
Most respondents that provided substantive feedback to this statement Strongly Agreed (34.69%) or Agreed (10.20%) that NHERI experimental staff provided useful feedback, with a smaller proportion of respondents indicating they Strongly Disagreed (12.23%) or Disagreed (6.12%). Remaining respondents indicated they found the question Not Applicable/Cannot Rate (24.49%) or were Neutral (12.24%) to this statement.

Q17-Do you have any additional comments about NHERI Facilities' and Resources' staff? (N=6)

Respondents were again asked to provide additional feedback – this time regarding staff – in an open-ended manner. Those who provided substantive feedback had positive comments regarding NHERI staff, sharing that staff are "all excellent!" and had "been highly supportive all the time." One participant shared that though they had not used the facilities, all staff were "very approachable at the Summer Institute" and went on to share that facility staff were "all very welcoming and eager to help."

Q18-Have you participated in any of the proposal writing workshops and/or seminars, or utilized NHERI support resources? (N=49)
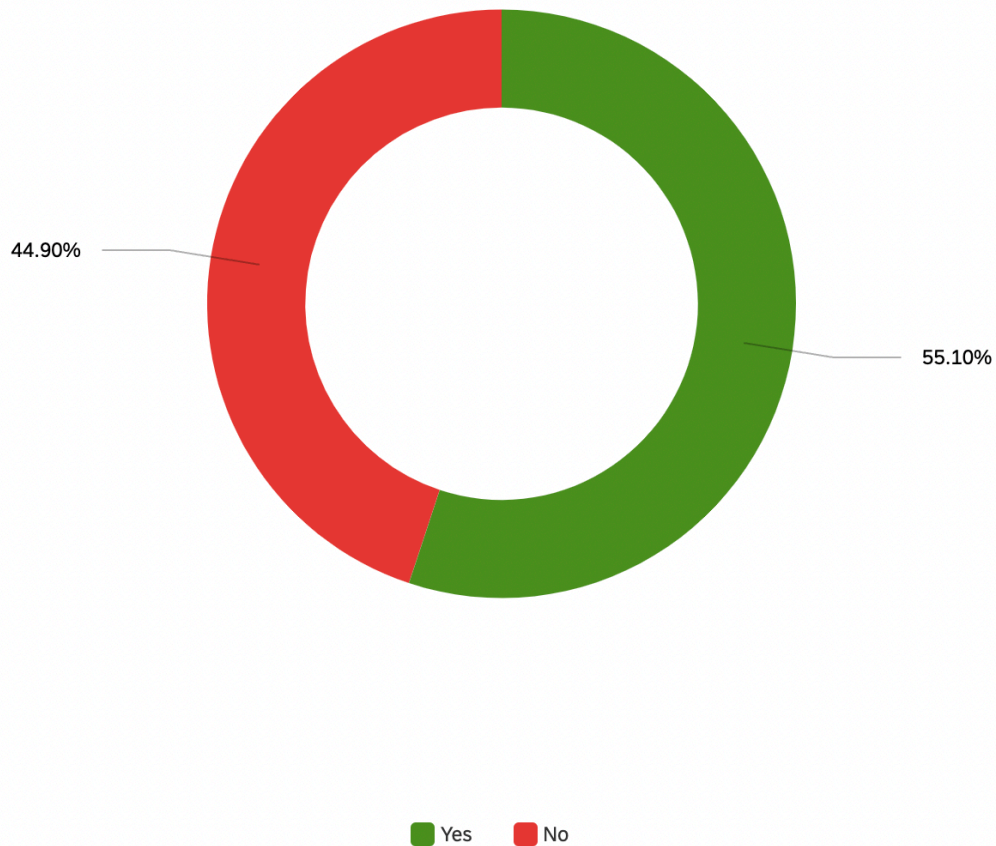
A majority of respondents (55.10%) reported they had participated in proposal writing workshops, and/or seminars, or utilized NHERI support resources. Remaining respondents (44.90%) reported they had not participated in proposal writing workshops, and/or seminars, or utilized NHERI support resources.

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Q19-Have you requested assistance from NHERI as you write your proposal? (N=34)
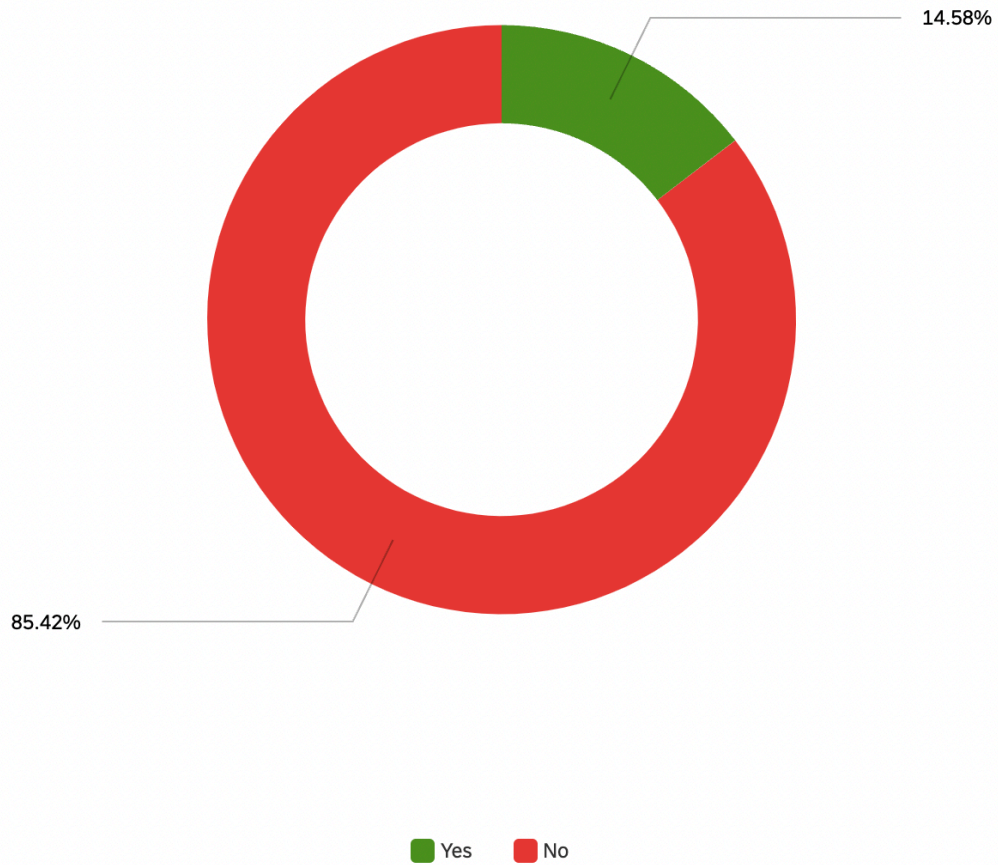
A majority of respondents (85.42%) indicated they had not requested assistance from NHERI during the proposal writing process. Respondents who indicated they requested assistance from NHERI during the proposal writing process (14.58%) were asked a follow up question, discussed below.

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Q20-Has the assistance you received been helpful? (N=7)

100.00%

■ Yes   ■ No
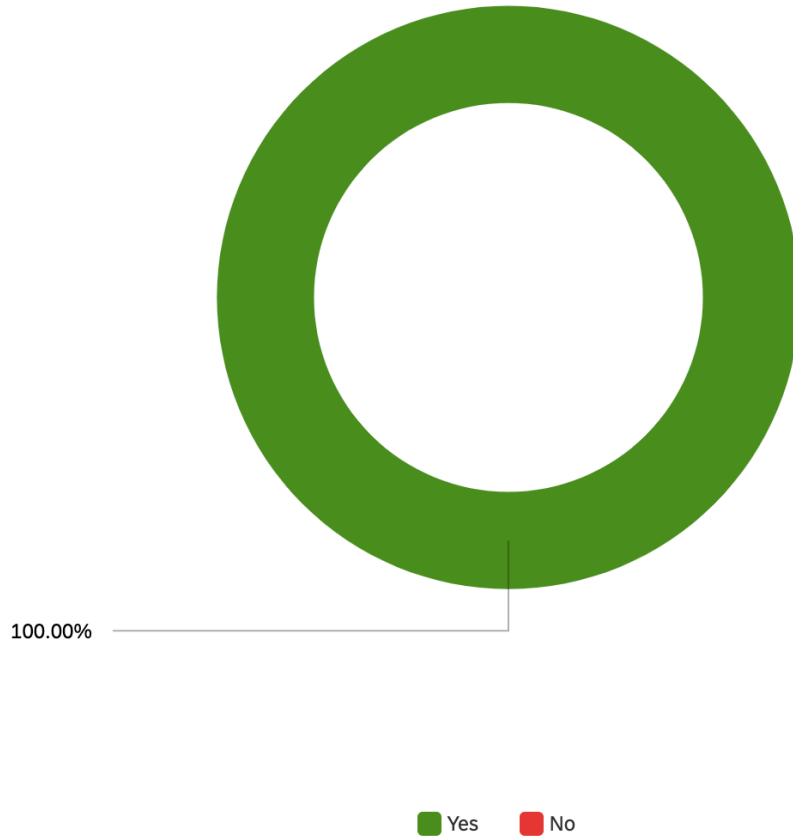
This question was available only to respondents who indicated they had requested assistance from NHERI during the proposal writing process. All respondents who requested assistance reported they received assistance and found the assistance useful.

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Q21A-<u>The training available</u> for online resources and tools meets my needs. (N=45)
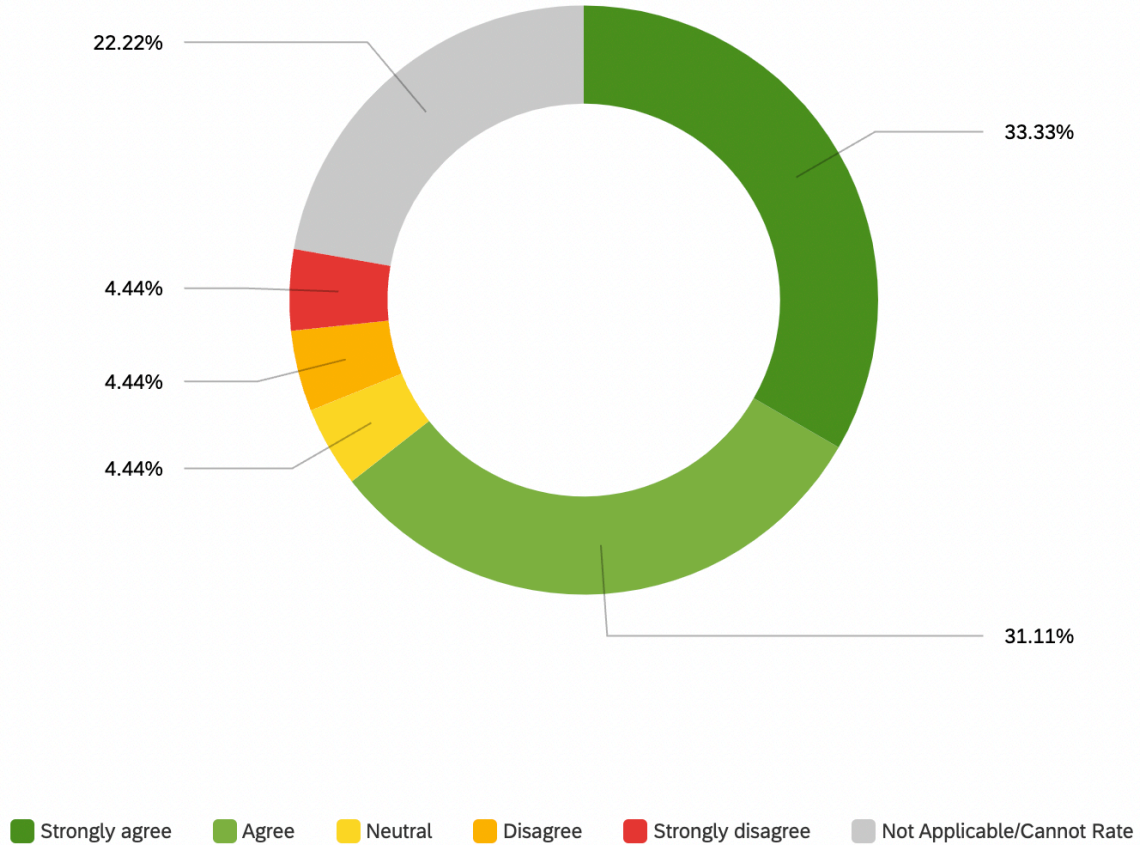
This was part of a question regarding NHERI online resources and tools. A majority of respondents either Strongly Agreed (33.33%) or Agreed (31.11%) to the statement that the training available for online resources and tools meets [their] needs. Remaining respondents found this question not applicable/cannot rate (22.22%) or were Neutral (4.44%) to this statement. A small proportion of respondents Disagreed (4.44%) or Strongly Disagreed (4.44%) with this statement.

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Q21B-<u>The technical support</u> for online resources and tools meets my needs. (N=45)
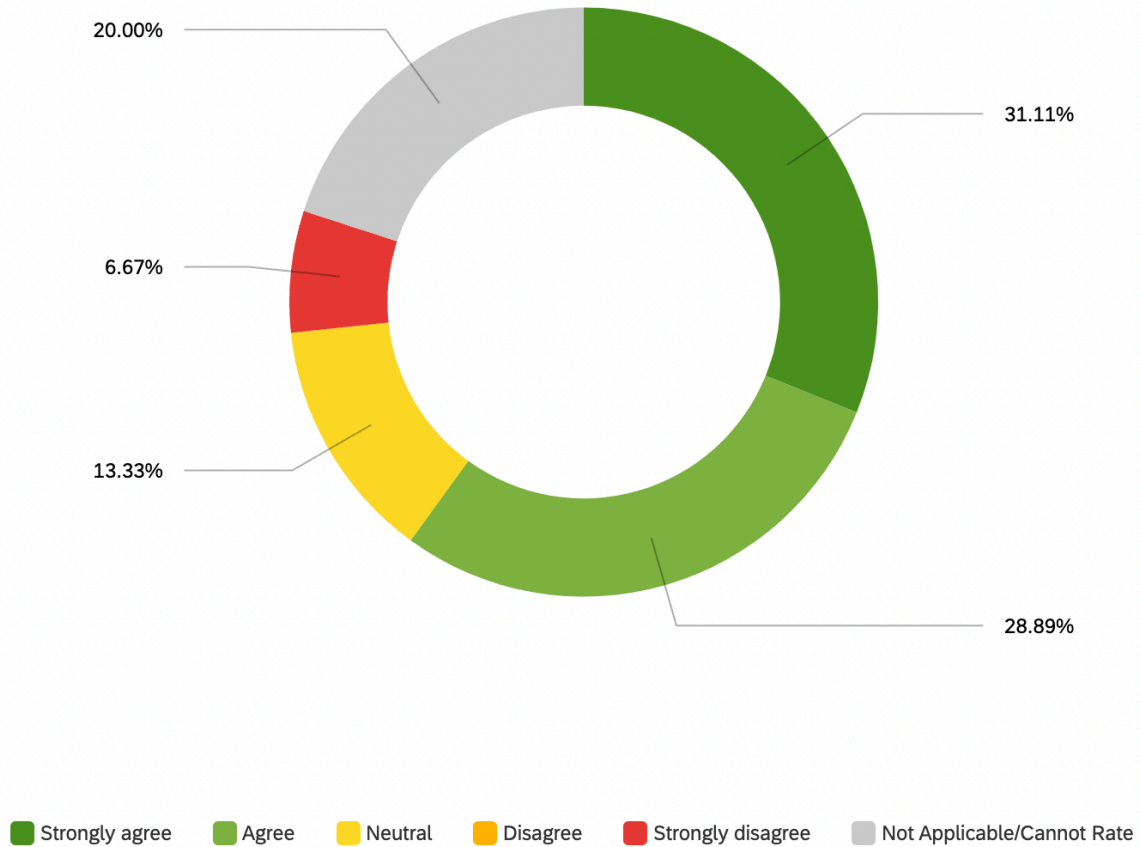
This was part of a question regarding NHERI online resources and tools. A majority of respondents either Strongly Agreed (31.11%) or were Agreed (28.89%) with the statement that the technical support for online resources and tools meets [their] needs. Remaining respondents found this question not applicable/cannot rate (20.00%) or were Neutral (13.33%) to this statement. A small proportion of respondents Strongly Disagreed (6.67%) and no respondents Disagreed with this statement.

Q22-How many times a month, on average, do you use DesignSafe and other NHERI online resources and tools? (N=39)

Respondents reported using DesignSafe and other NHERI online resources and tools on average *<u>five</u>* times a month, with responses ranging from 0 to 20.

Q23-What is the most important change to NHERI's services, tools, and resources that would improve your experience with them? (N=21)

This open-ended question was designed to elicit qualitative responses that allow respondents to suggest a change to NHERI services, tools, and resources that would improve the User experience. Respondents commented suggesting improvements to data procedures and processes, including enhancing "speed" of DesignSafe. Additional suggestions to improve data procedures and processes include adding "indexing and search tools for datasets" that have more information than just "the abstract and PI" and "standardizing data and their description/format." Respondents also suggested the addition of "webinars and office hours" from facilities and shared difficulty getting "an account on DesignSafe and Slack."

Q24-What service, tool, or resource not currently in NHERI should be added? Please specify what need your suggestion is going to meet. (N=16)

This open-ended question was designed to elicit qualitative responses that allowed respondents to comment on what services, tools, or resources NHERI should add. Suggestions were oriented thematically around facilitating collaboration, and included suggestions such as adding "a researcher discussion forum" or "posting/discussion board" to connect early career researchers and faculty. Additionally, respondents requested "more CONVERGE modules" and "the ability to add restrictions to sensitive, human subjects data" which would "help increase participation of social scientists."

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Q25-Information regarding NHERI is distributed at a useful rate and quantity. (N=45)

11.11%
2.22%
2.22%
11.11%
37.78%
35.56%

Strongly agree   Agree   Neutral   Disagree   Strongly disagree   Not Applicable/Cannot Rate
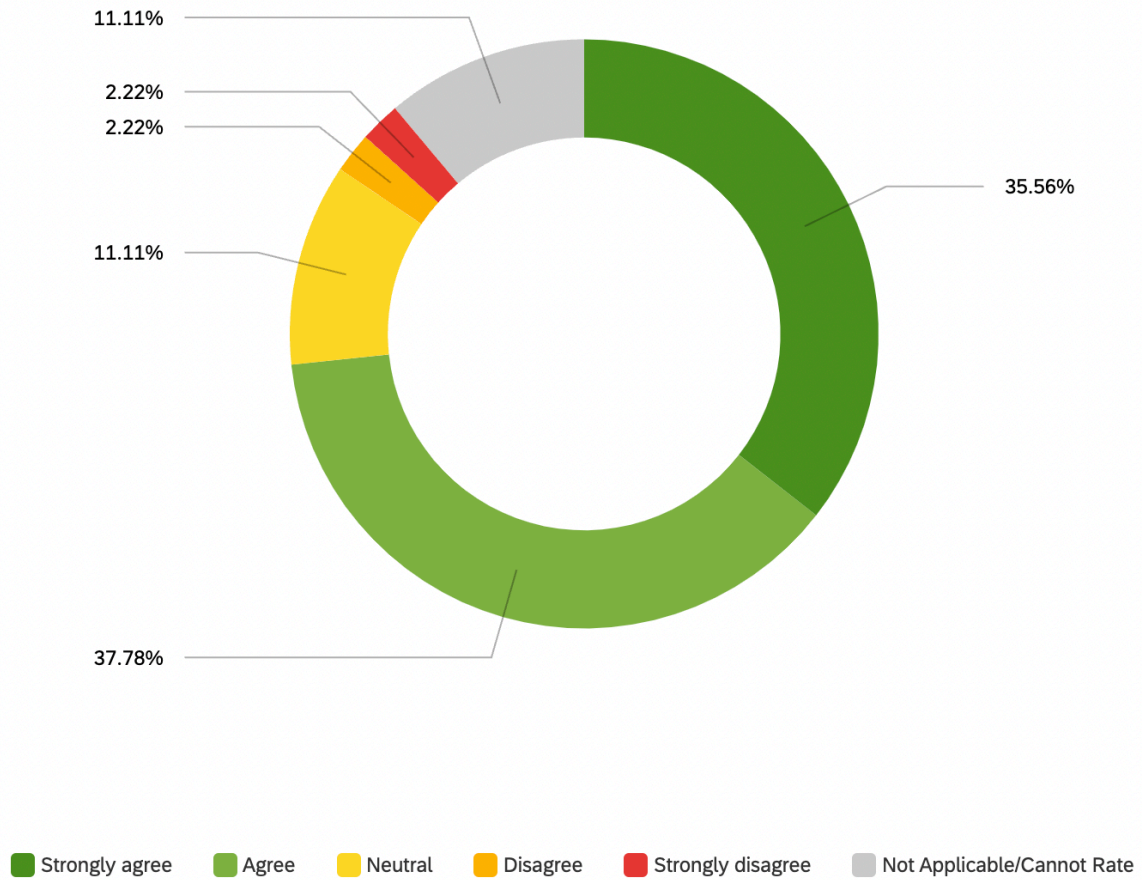
A majority of respondents Agreed (37.78%) or Strongly Agreed (35.56%) with the statement that information regarding NHERI is distributed at a useful rate and quantity. Remaining respondents were Neutral (11.11%) or found the statement not applicable/cannot rate (11.11%). The smallest proportion of respondents Disagreed (2.22%) or Strongly Disagreed (2.22%) with this statement.

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Q26-The information regarding NHERI in DesignSafe is useful. (N=45)
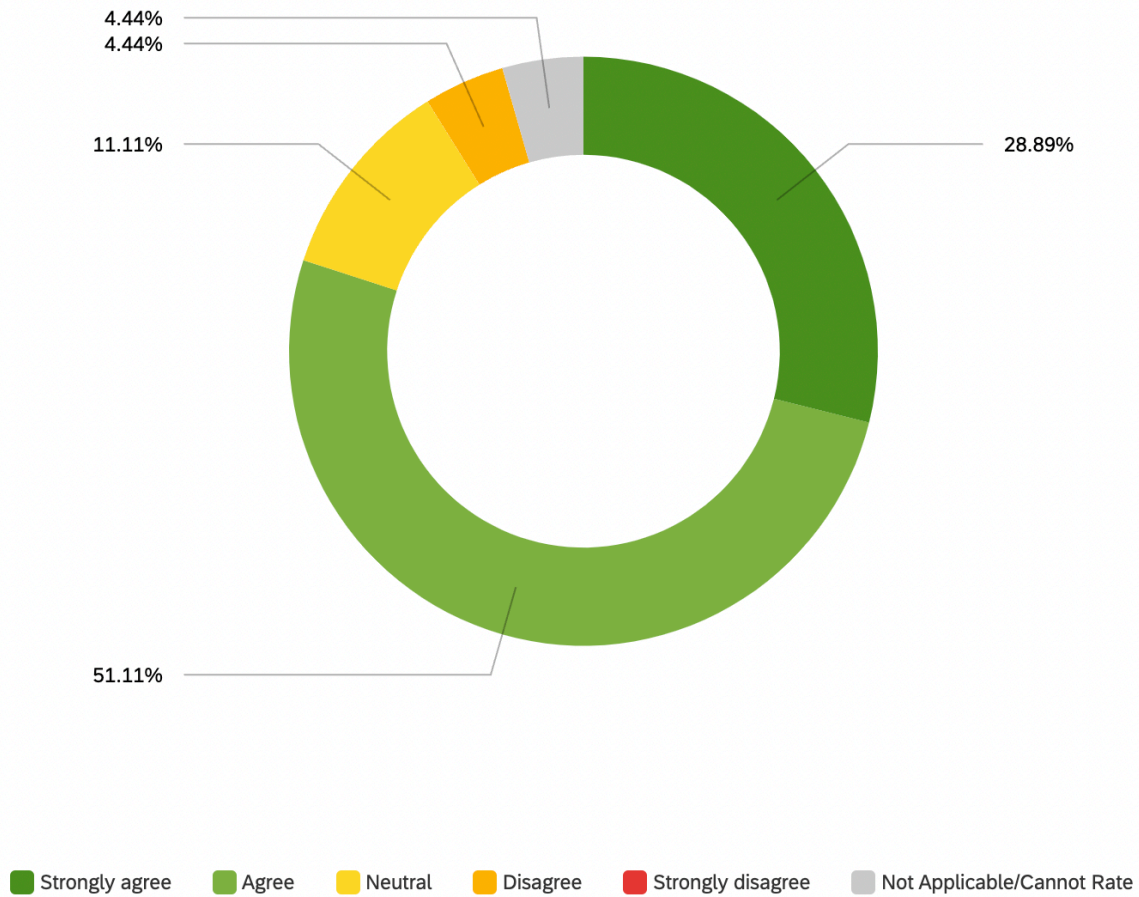
A majority of respondents Agreed (51.11%) or Strongly Agreed (28.89%) that information regarding NHERI in DesignSafe is useful. A smaller proportion of respondents were Neutral (11.11%) to this statement or found it not applicable/cannot rate (4.44%). No respondents Strongly Disagreed with this statement, and only a small proportion of respondents Disagreed with this statement (4.44%).

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Q23-Do you have any additional comments regarding NHERI services and information? (N=8)

Respondents who opted to substantively answer this open-ended question noted that they "appreciate the services," but that resources don't always apply to "social scientists."

Q24 - Do you have any final comments regarding NHERI Facilities and Resources? (N=9)

Substantive responses to this open-ended question regarding NHERI facilities and resources suggested that NHERI "keep the facility schedule up to date as much as possible," and that NHERI "should continue in the future." Additionally, one respondent shared that they believe "NHERI resources should somehow be incorporated into graduate classroom work" to embed NHERI resources into the research trajectory for early career researchers.

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APPENDIX A-Survey Instrument

Greetings! You have been invited to participate in a user satisfaction survey for the Natural Hazards Engineering Research Infrastructure (NHERI). We greatly appreciate any feedback or comments you may have so that services and user experiences with NHERI may be improved. If you opt to participate in this survey, you will be asked about your experiences using NHERI and related programs based on your experiences in the last year. No personal information will be associated with your responses. Your participation is voluntary, and you may withdraw consent and/or discontinue participation at any time. You may skip questions you prefer not to answer. Completion of the survey should take approximately 8-10 minutes.

      1. Yes, I would like to participate in the survey.
      2. No, I would not like to participate in the survey.

Q1. Do you consider yourself an early career researcher?
      1. Yes
      2. No

Q2. Which of the following best describes your position?
      1. PI
      2. Co-PI
      3. Post Doctoral Researcher
      4. Graduate Student Researcher
      5. Research Assistant
      6. Other
Q3. Please select your gender.
      1. Female
      2. Male
      3. Non-binary / third gender
      4. Prefer not to say

The NSF-funded Natural Hazards Engineering Research Infrastructure (NHERI) for the nation includes shared-use facilities and other components that are designed to advance research and applications that can help reduce natural hazards losses and improve community resilience. Based on your experience with one or more of the NHERI components, please respond to the following questions:

Q4. My own research has been enhanced through my use of NHERI resources and/or my connection to the NHERI components.
      1. Strongly Disagree
      2. Disagree
      3. Neutral
      4. Agree
      5. Strongly Agree
      6. Not Applicable/Cannot Rate

Q5. The creation of NHERI has helped to advance research collaborations in the natural hazards research community

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

Q6. I have reviewed the NHERI Science Plan-Version 1.0 and/or Version 2.0
1. Yes
2. Unsure
3. No

Q7. On a scale of 1 to 5, how likely are you to write future grant proposals that will involve the use of NHERI resources?
1. Not Likely at All
2. Somewhat Likely
3. Unsure
4. Likely
5. Highly Likely

We would now like to ask you questions regarding how you intend to utilize NHERI Facilities and Resources (i.e., experimental facilities, DesignSafe, RAPID, CONVERGE, and SimCenter; referred to as "Facilities and Resources" for the remainder of the survey).

Q8. Which of the following best describes your current position in the proposal process for NHERI Facilities and Resources?
1. I'm writing my first proposal.
2. My proposal has been accepted, but I have not begun utilizing the facilities.
3. I am currently performing experiments/using the SimCenter.
4. I have completed experiments.
5. I have completed an experiment(s) and am working on the next proposal.

Q9. How many facilities are you writing proposals for?
- numeric response

Q10. How many proposals have you prepared that used either the NHERI Facilities and Resources?
- numeric response

Q11. Which of the following best describes how you intend to utilize NHERI Experimental Facilities and/or the SimCenter?
1. I want to access and use data that has already been uploaded.
2. I intend to produce and upload original data.
3. I want to access and use data and produce and upload original data (a and b).

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

Q12a. 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

Q12b. 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

Q12c. 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

Q12d. 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

Q12e. 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

Q12f. 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

Q13. Do you have any additional comments regarding NHERI data?
- Open ended

Please respond to the following statement about NHERI facilities and resources.
Q14a. 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

Q14b. Information about NHERI experimental facilities is comprehensive:
1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
6. Not Applicable/ Cannot Rate

Q15. Do you have any additional comments regarding information about NHERI Facilities and Resources?
- Open ended

We would like to ask you about NHERI Facilities' and Resources' staff and support resources.

Q16. 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

Q17. Do you have any additional comments about NHERI Facilities' and Resources' staff, scheduling, and equipment?
- Open ended

Q18. Have you participated in any of the proposal writing workshops and/or seminars, or utilized NHERI support resources?

1. No
2. Yes

Q19. Have you requested assistance from NHERI as you write your proposal?
    1. No
    2. Yes

Q20. (IF Q19 = 2) Has the assistance you received been helpful?
    1. No
    2. Yes
    3. Did not receive assistance

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

Q21a. Regarding NHERI online resources and tools the training available for online resources and tools meets my needs.
    1. Strongly Disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly Agree
    6. Not Applicable/ Cannot Rate

Q21b. Regarding NHERI online resources and tools the technical support for online resources and tools meets my needs.
    1. Strongly Disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly Agree
    6. Not Applicable/ Cannot Rate

Q22.How many times a month, on average, do you use DesignSafe and other NHERI online resources and tools
- numeric response

Q23. What is the most important change to NHERI's services, tools, and resources that would improve your experience with them?
- open ended

Q24. What service, tool, or resource not currently in NHERI should be added? What need is this going to meet?
- open ended

Almost done! We have just a few more questions for you about NHERI services and information.

Q25. 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

Q26. 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

Q27. Do you have any final comments regarding NHERI services and information?
- Open ended

Q28. Do you have any final comments regarding NHERI Facilities and Resources?
- Open ended

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APPENDIX B-Comprehensive Qualitative Response Data by Question

Q13. Do you have any additional comments regarding NHERI data?
- searching tools could be improved and should go across NHERI and NEES datasets. I have been flummoxed multiple times, not finding a data set that I know is there. But then I remember I am searching "Published", but not "Published (NEES)". Also searching should work by looking for the name of the researchers, not just the PI's
- no
- n/a
- Unsure at this time
- Thanks for the service to the community.
- Need databases
- NA
- Just learned about all the data that's available today at the NHERI a summer Institute
- It is a great research network
- I'm unsure how to access NHERI data
- DesignSafe is very slow, limiting its acceptance/usefulness.
- DesignSafe is integral for our community.
- Bulk downloads would be nice, rather than going through menus up and down.

Q15. Do you have any additional comments regarding information about NHERI Facilities and Resources?
- NA
- No
- To my knowledge, there isnt a webpage that comprehensively explains the facilities and resources, or if there is, it isnt heavily advertised to early career scholars.
- It would be great if there was a "quick facts" sheet of all the institutes that also included a short list of the variety of past research they've conducted, especially interdisciplinary examples.
- They are excellent
- It is sometimes hard to find some information but overall well done.
- It is very valuable to both educational and research community.
- cannot rate, because I have not used tried to find info about facilities recently.
- 'readily accessible' IF you have a funded nsf project. still very competitive to get funding
- yes
- no

Q17. Do you have any additional comments about NHERI Facilities' and Resources' staff, scheduling, and equipment?
- Lehigh's NHERI facility staff has supported us 100% of time with 100% useful information
- NA
- I have not used the facilities but they were all very approachable at the Summer Institute. There was a false sterotype that they would be intimidating to work with, but they were all very welcoming and eager to help.

- All excellent!
- The staff has been highly supportive all the time along the road.

Q23. What is the most important change to NHERI's services, tools, and resources that would improve your experience with them?
- NA
- Reproducible
- N/A
- NA
- Simply learning about the resources. Once I complete the trainings, I can rate the overall experience.
- Simcenter tools are great but should be more well vetted by outside researchers and practicing engineers.
- One main page that has links to each facility and their contact persons
- More inclusion of social science data
- Unsure yet
- Standardize data and their description/ format
- Improved search engine for past research projects and their data
- Offering more data trainings such as those by CONVERGE and DesignSafe.
- More examples for using SimCenter Tools
- I find they currently are very well arranged.
- My students use the resources, not me directly
- Improve the indexing and search tools for datasets. Searching should not have to repeated in NHERI and NEES datasets. Search should cover both. Search should cover things deeper than the abstract and PI.
- It is techncially difficult to get an account on DesignSafe and on Slack. The user interface for requesting accounts and logging in is circular and confusing. If you get an error, you don't know what the error is, and you are prompted to "try again." You have to email someone to get the account squared away. People are helpful, but the interface is terrible.
- webinars and office hours from facilities
- Start time of HPC jobs, runs of longer than 24hours
- speed. DesignSafe is too slow
- science plan.

Q24. What service, tool, or resource not currently in NHERI should be added? What need is this going to meet?
- NA
- NA
- Unsure. I feel like a database which posts grant opportunities, fellowships, and disaster job postings. There may already be an email list.
- A researcher discussion forum would help connect researchers. It can be focused on early career faculty
- Na
- The ability to add restrictions to sensitive, human subjects data. This is going to help increase participation of social scientists. If this is something that is already available via DesignSafe, it needs to be better advertised

- Databases
- Unsure
- posting/discussion board for identifying potential collaborators
- Wildfire simulation/ fluid structure interaction simulator
- More CONVERGE modules. Training and mentoring goals.
- No idea
- None
- Support research on climate change
- data sharing and exchange
- data sorting

Q27. Do you have any final comments regarding NHERI services and information?
- It doesn't always apply to be as a social scientist
- Marti Lachance is a great communicator
- I appreciate the services.
- This survey seemed to emphasize experimental facilities and a bit about data at Design Safe. Surprisingly, the survey did not have specific questions related to field work (Rapid and Converge), computational simulation and HPC (SimCenter and DesignSafe).
- no
- no

Q28. Do you have any final comments regarding NHERI Facilities and Resources?
-
- Keep facility schedule up to date as much as possible as 2025 approaches
- Excellent!
- Thankful for NHERI
- I believe that if NHERI resources should somehow be incorporated to graduate classroom work. Later on, during research phase of their phd, students will be more open to use NHERI resources because they are acclimated already
- No thank you.
- Should continue in the future and more funding for proposals
- no
- yes